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HIP HYGIENE IMPROVEMENT
PROJECT

USAID Hygiene Improvement Project

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End of Project Report

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The views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the U.S. government.

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Page 3: A tippy tap made out of a gourd serves as a hand washing station outside a latrine in Ethiopia. (Julia Rosenbaum, AED)

Page 8: Scouts staff an information booth outside a latrine at a WASH-friendly church in Madagascar. (Shahbaz Fawbush)

Page 28: Elders from the village of Kanshegu in Ghana discuss progress with sanitation and hygiene activities in their community with staff from World Vision, a partner in the West Africa Water Initiative with HIP. (Sumaila Saaka)

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Acronyms

AED	Academy for Educational Development
APSS	Alternative Pro-Poor Solutions in Sanitation
ARD	Associates in Rural Development
BC	Behavior change
CBO	Community-based organization
CDC	Centers for Disease Control
CLTS	Community-led total sanitation
CLTBCHS	Community-led total behavior change in hygiene and sanitation
CS	Colloidal silver
CSMI	Creating Sanitation Markets Initiative
CTO	Cognizant technical officer
ENPHO	Environment and Public Health Organization
FID	Fonds d'Investissement pour le Développement
HAPCO	HIV/AIDS Control Program
HBC	Home-based care
HIP	Hygiene Improvement Project
HWTS	Household Water Treatment and Safe Storage
IRC	International Water and Sanitation Centre
ISH	Improved Sanitation and Hygiene Promotion Financing Strategy
KM	Knowledge management
MDG	Millennium Development Goals
M&E	Monitoring and evaluation
MOU	Memorandum of understanding
MSH	Management Sciences for Health
NGO	Nongovernmental organization
NHIP	Nepal Hygiene Improvement Project
PEPFAR	President's Emergency Plan for AIDS Relief
PLHIV	People living with HIV
POU	Point of use
PPP	Public-private partnerships
PPPHW	Public-Private Partnership for Handwashing
RRI	Rapid Results Initiative
PVO	Private voluntary organization
SDA	Small doable action
TIPs	Trials of improved practices
TOR	Terms of reference
TOT	Training of trainers
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States government
UWASNET	Uganda Water and Sanitation NGO Network
WAWI	West Africa Water Initiative
WASH	Water, sanitation, and hygiene
WHO	World Health Organization
WSP	Water and Sanitation Program
WSR	Whole System in the Room

Introduction



For six years (2004–2010) the USAID Hygiene Improvement Project (HIP) fostered innovative approaches to tackling one of the world’s most intractable illnesses—diarrhea. Still a top killer in developing countries, this disease is preventable if basic hygiene and sanitation practices are followed. The project did not focus on water and sanitation hardware or subsidize latrine construction, dig wells, or freely distribute water treatment products to achieve its ends. These methods had all been tried before with uneven success. Instead HIP promoted three key hygiene behaviors—hand washing with soap, safe feces disposal, and household safe storage and treatment of drinking water—which could produce the greatest gains in child survival and diarrheal disease prevention.

HIP drew on the existing evidence base in hygiene promotion and health behavior change to develop an overall strategy and country-specific approaches. Key to its efforts to promote the three hygiene behaviors was the acknowledgement that behavior change is complicated to implement and sustain—ask anyone who has tried to teach a six year old to wash hands with soap consistently. So what is the most effective approach to move a household or community up the sanitation ladder toward what is considered an ideal behavior and deliver noticeable health benefits? To answer this question HIP conducted field trials in each country or region where it was active. At the household level, HIP and its partners promoted the practice of small doable actions that are feasible for a family to adopt. This same approach can be applied to institutions such as schools and health centers. At the community level, no single sector of society (public, private, civil) or individual development program/platform is likely able to effect large-scale change. Therefore, all stakeholders need to be involved, all channels need to be applied, and all sectors (health, water, education) need to be engaged to implement hygiene

improvement at scale. At the same time, HIP sought opportunities to create a market for sanitation products and services and built capacity and financing options so these markets can develop and flourish.

At the project's onset the key HIP tasks included:

- Implementing hygiene improvement *at scale* in at least five countries
- Integrating hygiene considerations into health and non-health platforms
- Sharing USAID's global experience in the field and advocating for hygiene improvement
- Providing support and capacity strengthening to PVOs, NGOs, and networks working in the field
- Sharing knowledge about best practices with program managers, organizations, and donors involved in hygiene improvement at international, national, regional, and community levels

It soon became evident that funding concerns would limit the scope of HIP's at-scale approach to two countries, Ethiopia and Madagascar. These two countries, however, provided unique opportunities to implement the scale approach, which yielded valuable lessons and replicable tools for other countries. The project went on to provide technical support for hygiene improvement programming in Nepal, Peru, Uganda, India, Kenya, and several West African countries. In all of its programs, HIP supported the integration of hygiene into other platforms such as HIV/AIDS and schools. The extent to which the integration efforts expanded over the course of the project was quite unanticipated, particularly in the area of HIV/AIDS. While an evidence base of programming experience existed, prior to HIP involvement limited research had been conducted on the connection between hygiene practices in the home and HIV/AIDS patients' overall health and quality of life. In a population so vulnerable to diarrheal illness, this gap invited further exploration. By project's end, HIP had implemented activities targeted to home-based care workers to improve the quality of life of people living with HIV/AIDS (PLHIV) in Ethiopia and Uganda and begun a similar initiative in Kenya.

Other noteworthy achievements over its six years were the sanitation marketing initiatives in Peru, Uganda, and Madagascar that strived to identify the particular needs of a given community in terms of sanitation options, the suppliers of goods and services that would be required to deliver these options, and the motivations that go beyond health concerns that lead a household to adopt new technologies.

HIP's commitment to be a global player in the water, sanitation, and hygiene (WASH) arena showed in its leadership in reformulating USAID's overall approach to sanitation; its involvement and membership in sector working groups, organizations, and committees; its advocacy on behalf of WASH with other institutions and sectors; and in the development of expertise, tools, and materials that have reached broad audiences wishing to replicate or incorporate HIP methods into their own programming.

Working at Scale



One of HIP’s central tasks was to develop approaches for implementing hygiene and sanitation improvement at scale—that is coordinating the actions of all stakeholders working toward a common goal to significantly reduce disease rates in large numbers of affected people. Working at scale differs from scaling up—taking a successful pilot program and expanding it to a larger audience. At scale begins by taking a whole systems approach, rather than targeting pieces of the problem, and engages multiple sectors, actions, options, and stakeholders in defining the problem and agreeing on the solutions.

HIP’s scale approach incorporated widespread hygiene promotion using the principle of multiples—multiple players, multiple behaviors, multiple levels, and multiple interventions—enhanced interpersonal communication to encourage or negotiate improved WASH practices, and an increasingly popular community mobilization technique called community-led total sanitation (CLTS). During HIP’s six years, the project pioneered its at-scale approach in Ethiopia and Madagascar. While programming in both countries was theoretically sound and grounded in best practice, each country evolved according to the assets and challenges of its particular context.

Ethiopia

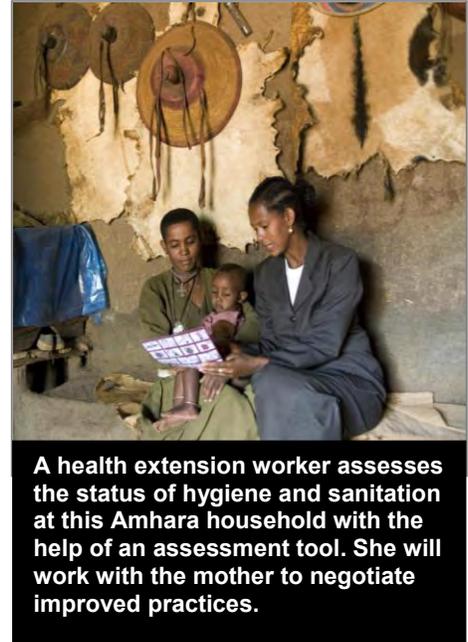
The World Bank Water and Sanitation Program (WSP) invited HIP in late 2005 to bring at-scale approaches to the Ministry of Health’s implementation of the newly endorsed National Hygiene and Sanitation Strategy. Together they agreed to focus on the Amhara region, selected because it was a USAID and WSP priority geographic area with great WASH needs, fewer donor investments than other regions, and a committed regional leadership.

The scale process in Amhara involved a series of steps to realize the National Strategy and Universal Access goals for hygiene and sanitation by 2012. The at-scale process aimed to reach all *woredas* (districts) through a phased approach: four *woredas* received high-intensity training and technical assistance and an additional seven *woredas* received access to tools and technical assistance. Each of the 11 *woredas* was located in a unique zone and served as the zone’s model WASH program. Thirty *woredas* received a special stream of limited WASH funding and assistance through the World Bank/DFID Rural Water and Sanitation Project. Another 60 *woredas* received similar assistance through another development partner. As a result, 90 of 152 districts in the region received some form of hygiene and sanitation support.

The Learning by Doing process pioneered in the region represented a new hybrid approach to at-scale hygiene and sanitation improvement. The process started with mapping the context—documenting human, material, and financial resources; partners; and available hygiene and sanitation programs and networks. Then through a Whole System in the Room (WSR) meeting, the wide-range of stakeholders developed a common action agenda and coordinated plan. From the common action agenda, HIP worked with WSP and regional Health and Education Bureau counterparts to develop a detailed behavior change strategy that described a range of approaches and tactics planned to achieve the agenda. Once the strategy was finalized, training, planning, and implementation continued at the *woreda* and *kebele* (subdistrict) levels. Districts went on to organize their own WSR stakeholder meetings to rally stakeholders and development partners in each *woreda*. The practice of key hygiene and sanitation behaviors was tracked and monitored at the local and regional levels and activities adjusted as needed. Amhara’s approach also took advantage of existing water programs financed by other development partners to leverage local financing for hygiene and sanitation activities.

Amhara’s integrated at-scale approach occurred within a favorable environment—a national hygiene and sanitation strategy that facilitated multisectoral collaboration through a memorandum of understanding signed by three ministries (health, water, and education), an active national WASH movement, and a regional entity to champion the effort. These elements plus the strong national policy and donor context were critical to launching the Amhara at-scale experience.

While the overall approach nurtured the participation of the whole system, including schools, religious institutions, and the private sector, changing centuries-old practices required intensive activity at the household and community level. Additional information about HIP’s sanitation and behavior change approach in Ethiopia is covered in the Sanitation section of this report.



A health extension worker assesses the status of hygiene and sanitation at this Amhara household with the help of an assessment tool. She will work with the mother to negotiate improved practices.

Photo Credit: Richard Lord

Accomplishments

- More than 5.8 million people in the region have been reached by hygiene and sanitation promotion activities, 47 woredas have ignited for Total Behavior Change in Hygiene and Sanitation, and an estimated 2.8 million people have stopped the practice of open defecation and now use a basic pit latrine. Many of these people and their families have at the same time improved other hygiene practices such as washing hands with soap and treating and safely storing drinking water in an appropriate container with a lid.
- Amhara’s high-involvement districts saw significant drops in open defecation and large increases in the number of households using unimproved latrines. The practice of open defecation dropped from 64 percent to 40 percent and access to unimproved sanitation increased from 17 percent to 46 percent. Despite significant drops in open defecation, however, families are upgrading to unimproved sanitation facilities rather than improved latrines promoted by the project that meet minimum Millennium Development Goal standards.
- The 11 woredas receiving program support served as benchmark and training sites in their respective zones. The woredas that learned the Community-Led Total Behavior Change in Hygiene and Sanitation (CLTBCHS) approach from these model woredas increased latrine coverage equal or in some cases better than the benchmark woredas.
- Elements of the Learning by Doing approach as well as materials developed by WSP and HIP for the CLTBCHS program in Amhara have been adapted for use at the national level.
- At the household level, gains in sanitation coverage could be linked to components of the CLTBCHS—social mobilization and household negotiation techniques. Based on an analysis of endline data, the chances of owning a latrine were about 11 times higher in households located in villages that organized a walk of shame (part of the community-led total sanitation approach), that were visited by an outreach worker to improve sanitation conditions, and where child caretakers held beliefs that reflected motivational factors promoted by the initiative (e.g., having a latrine contributes to the their community’s health or development).

Madagascar

HIP's at-scale strategy in Madagascar focused on four USAID priority geographic regions—Analamanga, Amoron'i Mania, Haute Matsiatra, and Atsinanana—with an estimated population of 6,420,000. HIP focused on priority communes in each region based on an assessment of diarrheal disease prevalence, access to water, sanitation coverage, presence of development partners, and general vulnerability. In 2006 HIP conducted trials of improved practices to identify small doable actions for hygiene improvement adapted to rural Madagascar. Widely known as —P~~A~~I~~s~~” (*Petites Actions Faisables et Importantes*), they were joined by —*méthodes alternatives*,” different methods for achieving the same hygiene improvement goal.

HIP first began working in partnership with the Ministry of Mines and Energy, where water and sanitation were housed, to coordinate the at-scale approach. Next, the Ministry of Health rapidly involved the ministries of Education and Mines and Energy and sector partners such as WaterAid, UNICEF, and local NGOs in a national hygiene education campaign. From the beginning, HIP aimed at sustainability by seeking to embed hygiene promotion into national policy and programs within primary technical ministries while also branching out to explore more possibilities. HIP and WASH partners engaged in national-level advocacy that resulted in the adoption of the —WASH-friendly” approach for schools and health centers, and in the development and adoption of a National Sanitation Strategy.

As in Ethiopia, HIP anchored its at-scale approach in Madagascar in the principle of multiples. This created an attitude of openness to opportunities for partnering and for applying the Learning by Doing model. Such experimenting benefited the program when it shifted from work embedded within the government to nongovernment-only activities, following the 2009 coup d'état. HIP's original intent was to work through the government, but as opportunities arose, HIP also forged partnerships with the Malagasy Red Cross, the Scout Federation of Madagascar, and a range of community- and faith-based organizations. When USAID suspended government collaboration, HIP sought out many new partners, especially in the private sector, and adopted new ways of working.

Accomplishments

- From 2007 to 2010 the practice of open defecation dropped from 38 percent to 23 percent while access to unimproved latrines rose from 59 percent to 73 percent.
- Because of a culture of flexibility and experimentation, HIP was able to change program direction and partners in a short time frame after the illegal government takeover in early 2009.
- Prior to March 2009 HIP supported the launch of 355 WASH-friendly schools and 129 WASH-friendly health centers, training nearly 10,000 teachers and community health outreach workers in WASH promotion.
- After March 2009 HIP guided 88 communities toward open-defecation-free status and facilitated the construction and sale of nearly 700 subsidy-free household latrines.



Members of a family of 15 who will share this improved latrine under construction. It includes a SanPlat, which HIP was instrumental in marketing and training masons to manufacture.

Photo Credit: Crystal Thompson

- Through its innovative sanitation marketing program, HIP built or renovated 11 urban fee-for-use toilet/shower facilities. Monthly use topped 12,000 as some facilities.
- HIP trained 1,720 scout leaders and certified 441 WASH-friendly scout troops; and HIP trained 200 parishioners and certified 55 WASH-friendly churches.

Lessons Learned from Both Ethiopia and Madagascar Experiences

- Partner and leadership buy-in is critical for creating an enabling environment. The nature of at-scale programs requires engagement from many levels simultaneously. Government is critical because it provides the vehicle that can reach all citizens and influence the actions of all in society. But in the absence of government, multiple and creative partnerships with NGOs and the private sector can keep a scale program active and productive.
- The at-scale hygiene and sanitation initiative should be integrated into the existing institutional framework so that sustainability is “built in” from the outset.
- Coordination among three technical ministries—health, education, and water—should be encouraged to maximize collaboration opportunities and increase impact.
- HIP behavior change communication materials were adopted by multiple partners. HIP’s at-scale approach did not feed into institutional rivalry and competition but offered endorsed tools to get a job done. These tools were all used by the government, private commercial, and NGO sector.
- Systematic capacity building of many actors at all levels is key—and must go beyond one-off training workshops. Building capacity also means agreement on key competencies for a range of actors. Training is not enough. HIP identified focused opportunities to build these competencies through well-designed training activities; focused mentoring over time that moved to internal mentoring and technical assistance; supportive supervision; frequent use of performance indicators; and other elements that built and maintained performance over time.
- The capacity to be flexible, innovative, and willing to take risks is perhaps the most important factor in scale success. HIP programs in Ethiopia and Madagascar made adjustments, adapted to new realities, and motivated multiple partners to work together to achieve success.
- Public-private sector collaboration and partnership should be encouraged to increase accessibility and affordability of key products and services that allow for improved hygiene and sanitation behaviors. Sanitation marketing should be introduced to complement community-led initiatives.
- The strategy of mobilizing the political leadership and engaging communities through community-led processes and outreach to households—the key components of the scale approach—shows encouraging results and outcomes. Investing in at-scale programming takes time, but starting at scale works.

For additional information about HIP’s approach to working at scale in Ethiopia and Madagascar, see: **At-Scale Hygiene in Ethiopia and Madagascar: Experiences and Lessons Learned**, <http://www.hip.watsan.net/page/5306>



Innovative Approaches

HIP recognized the potential for hygiene and sanitation approaches to go far beyond the typical audiences, sectors (health and water), and messengers. This section details some notable innovative approaches explored and developed by HIP and its partners—WASH-friendly institutions, HIV/AIDS integration, and sanitation marketing.

WASH-Friendly Approaches

WASH-Friendly Schools

An essential at-scale element is bridging to connect and integrate with other sectors to broaden dissemination of messages and program coverage. In this regard WASH and schools are a natural fit. Starting with the premise that all children have the right to a safe, clean, and welcoming school environment, HIP's WASH in schools movement was based on a model promoted by UNICEF, which HIP enhanced by introducing the concept of small doable actions to improve hygiene and sanitation conditions, health and attendance, as well as change behaviors of students and the community. Working toward the ideal of being certified WASH-friendly, schools are expected to be clean and safe; to have adequate, well maintained toilets or latrines for girls, boys, and teachers with water, paper, or other material for anal cleansing; to designate a place to wash hands with soap/ash and running water after using the toilets; and to treat and safely store enough drinking water for the school community.

Students are an important part of the entire behavior change process because changes they make in school hygiene practices are likely to spread to their households and communities. From the start groups of teachers, parents, and student leaders are involved in planning and implementing the steps that will make their schools WASH-friendly. At these schools:

- Teachers give lessons on good hygiene practices in the classroom
- Students participate actively in making and keeping their school WASH-friendly
- Teachers, students, parents, and the whole community work together to promote good hygiene by ensuring that there are facilities and conditions for practicing improved hygiene in school and at home
- More girls will remain in school because they have separate, private, and clean sanitation facilities and don't have to leave school when menstruation begins



Tippy tap hand washing stations like this one at a Madagascar school can be built by students using locally available materials to help make their schools WASH-friendly.

Photo Credit: Crystal Thompson

HIP's experiences with the education sector in both at-scale countries, Ethiopia and Madagascar, generated lessons, manuals, materials, and models that HIP is sharing with partners in multiple sectors. These include the "WASH-Friendly Schools Basic Guide for School Directors, Teachers, Students, and Administrators" and the companion "WASH-Friendly Schools Training Guide for Parents, Teachers, and Student Leaders," practical tools HIP developed to implement the WASH-friendly model that have been translated into both Amharic and French. These materials were also translated into Swahili to support WASH in schools activities in Tanzania.

Ethiopia

WASH in schools was prioritized from the start in Ethiopia as a critical part of the common action agenda developed at the WSR meeting. But while planned from the start, and included as a step in the Woreda Resource Guide, this component took time to emerge. The tools were finalized as the CLTBCHS program entered its final year, at which point the Regional Education Bureau added new energy and commitment to make WASH-friendly schools a priority with targeted stakeholder meetings, trainings, and technical support. With WSP and others, HIP developed a resource book for WASH-friendly schools and a training manual for teachers, parents, and student leaders. Supplemental materials include a picture and reading book and additional reading materials for teachers to use to develop classroom sessions.

The few schools that received WASH-friendly training have shown remarkable improvements in their sanitation practices and infrastructure and overall cleanliness of the school grounds. Such enthusiasm and motivation could be used to mobilize adjacent communities for hygiene and sanitation behavior change. It is hoped that this component will be strengthened and expanded in Amhara.

Nepal

Schools were viewed as an ideal place to expand point of use (POU) promotion and installation activities in Nepal (for more information on the overall POU project see Nepal section in Program Highlights). The Nepal Hygiene Improvement Project began its schools activity by researching the effectiveness of high yield water treatment methods and mechanisms for maintaining treatment systems in the school environment in 12 selected schools. The study concluded that high yield colloidal silver (CS) filters, large Biosand filters, and SODIS could be used

effectively depending on the school environment. At the conclusion of the study, guidelines for school POU promotion were developed and subsequently implemented in 200 schools where HIP installed water treatment systems. Students and teachers at the schools received an orientation on safe water issues and hand washing, and children's clubs and school management committees were put in charge of day-to-day operations and monitoring of their school's water treatment technologies, with duties varying depending on the type adopted by the school.

While not the focus of HIP support, hand washing promotion was another component of the Nepal Hygiene Improvement Project through UNICEF's child-to-child approach. Together both program elements created synergy and magnified message promotion.

Madagascar

Schools were initially a large part of HIP's efforts in Madagascar to make institutional reforms in hygiene and sanitation that would trickle down to the household level. HIP's at-scale channels for hygiene promotion began with the collaboration between the ministries of health and education to support school and health center improvement targets in the five-year Madagascar Action Plan. This included defining norms for creating WASH-friendly schools and health centers that incorporate water/sanitation infrastructure and improved hygiene practices and developing guidelines and training more than 8,000 teachers and administrators. This support resulted in a national strategy for WASH-friendly schools and health centers and the insertion of hygiene practices into teacher and health professional preservice training. The WASH-friendly health centers served as models for diarrhea prevention by demonstrating the three basic WASH practices with enabling technologies to visiting clients. HIP-trained teachers and health center staff wrote "How to Become WASH-Friendly" guides for schools and health centers, and produced measurable standards for moving up the WASH-friendly ladder." HIP staff in Madagascar also actively helped plan for the national Global Handwashing Day celebration—a high visibility event focused on school children. HIP was required by USAID to suspend direct support to government-based programs, which included schools, in 2009 following a coup d'état.

WASH Everywhere

The WASH-friendly model in Madagascar evolved over time beyond schools and health centers to include markets, churches, transportation hubs or taxi stations, highway rest stops, and tourism attractions. Each entity received HIP training to create its own WASH Committee. Like the schools model, these institutions were required to have minimum acceptable WASH facilities and services, such as improved latrines segregated by gender, places to wash hands with soap at critical times, correctly stored and treated drinking water for clients or pupils, and instruction/ demonstrations for clients and students to practice improved hygiene. Ultimately, HIP promoted the WASH-friendly commune (medium-sized administrative unit) or "WASH Everywhere" where all local institutions and facilities agree to meet minimum hygiene standards.

Accomplishments

- Reoriented program direction in response to political situation and U.S. government position: Following the illegal take-over of Madagascar's elected government, USAID projects were either suspended or reoriented to not support the new regime. HIP/Madagascar was required to end its school- and health center-based activities, so the program turned toward NGOs and the private sector, building on efforts that had been started and adding new ones. Work with the Scout Federation and church groups grew, and from there the plan to create WASH-friendly churches emerged. Work with the private sector led to the creation of urban *blocs sanitaires* facilities, and that effort led to the creation of WASH-friendly markets, transportation hubs, and highway rest stops.
- Developed replicable models, materials, and tools for other organizations/programs: The WASH-friendly concept was initially only designed for schools and health centers. HIP applied the concept to a multitude

of entities, providing models, lessons, documents, guides, indicators, and examples that can and have been taken up by other actors in the sector.

- Standardized a Hygiene Improvement Framework-based approach for all WASH-friendly activities: by definition WASH-friendly includes all three components of HIP—hardware, software, and enabling environment. Prior to the integrated WASH-friendly approach, either a focus on hardware predominated—build latrines or water sources—or behavior change communications occurred without the required enabling technologies. Now behavior and hardware are routinely connected in programs and in any guides and models for replication.

Lessons Learned

- The scale principle of working with multiples and not being tied to an inflexible work plan allowed HIP/Madagascar to be creative and opportunistic in its approaches. While work parameters are valuable, programs with a culture of experimentation can open doors to approaches such as WASH Everywhere.
- WASH-friendly is an approach or label that can be applied to many different entities, structures, events, professions, etc. All that is required is some imagination. For example, HIP/Madagascar applied the concept to churches, first training student pastors in WASH promotion and methods, then working within staff members' own churches to develop the model. Any place where improved hygiene can either be promoted, demonstrated (Scouts!), or advocated (journalists!) is a potential WASH-friendly candidate leading to WASH Everywhere.

Looking Ahead

The WASH Everywhere model has caught the attention of WASH sector actors and has been proposed for implementation elsewhere in Madagascar. An additional year of funding in Madagascar will allow continued support through another mechanism beyond HIP to develop the current WASH-friendly models with the NGO, faith-based, and private sectors. The new annual work plan (now through the C-CHANGE project) emphasizes collaboration with other USAID WASH partners for sharing of experiences and tools and for synergy. A Whole System in the Room event for WASH partners is being planned.

WASH-Friendly Products and Resources

WASH-Friendly Schools Basic Guide for School Directors, Teachers, Students, Parents and Administrators. 2010. <http://www.hip.watsan.net/page/5009>

WASH-Friendly Schools Training Guide for Parents, Teachers and Student Leaders. 2010. <http://www.hip.watsan.net/page/5008>

Resource Book for the Amhara Region-WASH-Friendly Schools. 2010. <http://www.hip.watsan.net/page/5337>

Training Manual for Preparing WASH-Friendly Schools Training Guide for Parents, Teachers and Student Leaders. 2010. <http://www.hip.watsan.net/page/5338>

A Compendium of Resources: Integrating Water, Sanitation, and Hygiene into Primary Schools and Teacher Training. 2009. <http://www.hip.watsan.net/page/2827>

Mise en place des Centres de Santé de Base Amis de Diorano-WASH (Technical Guide for Creating WASH-Friendly Health Centers). 2009. <http://www.hip.watsan.net/page/3225> (French); <http://www.hip.watsan.net/page/3516> (English)

Ecole Amie de Diorano-WASH, Manuel de Reference. (WASH-Friendly Schools Guide). French only. 2008. Hard copy only.

WASH and HIV/AIDS Integration

The negative impact of low access to necessary quantities of water, to water of reasonable quality, and to basic sanitation and hygiene are magnified for HIV-infected, immuno-compromised individuals. Further, HIV-infected individuals require more water. The added burden affects not only the HIV infected, but the entire family, increasing risk of diarrheal disease and lost productivity and impacting quality of life. Therefore, PLHIV and households affected by HIV and AIDS have a substantially greater need for WASH services: more water, safe water, easy access to water and sanitation, and proper hygiene.

Global Activities

When HIP first started, little was written about WASH and HIV integration. HIP pulled together existing evidence and wrote a brief on WASH-HIV integration that outlined why WASH matters in the HIV context. This was updated several years later as the project acquired more information and country experience. HIP reviewed World Bank documentation and inventoried existing policy guidance to develop programmatic implications of HIV and WASH integration. Finally, HIP and the World Health Organization (WHO) developed a joint programming guidance document to take WASH-HIV integration to the next level, which WHO published in August 2010.

In addition, HIP developed guidance for WASH-HIV integration within U.S. government agencies. This concerted effort engaged a wide range of partners participating in the President's Emergency Plan for AIDS Relief (PEPFAR). HIP held meetings with these partners and developed customized presentations and advocacy on WASH and HIV integration for each PEPFAR technical working group. HIP also wrote or revised technical considerations for each working group, which were then further developed and packaged as a toolkit for WASH-HIV integration. This facilitated the integration of WASH into country operational plans by providing language and budget information for writing activity descriptions. HIP also provided guidance and references on programming for the Water for the Poor Act. This toolkit has been updated annually. (See the full list of materials at the end of this section.)

Ethiopia

Ethiopia was the first country in which WASH-HIV activities were introduced. As such, it was the country in which HIP was “learning by doing.” The HIP team first sent out a request for partnership with the hopes of engaging one or two organizations interested in developing an activity together. When HIP received applications from six interested NGOs, the team decided to start a community of practice (COP) and invited all six organizations to participate.

To help identify how to integrate WASH into HIV programs, HIP worked with NGOs providing home-based care services in Ethiopia to conduct research and design and carry out trials of improved practices (TIPs). This activity helped examine current practices and develop a menu of water, hygiene, and sanitation small doable actions (SDA) to integrate into HIV programs, which were tested and developed using the TIPs methodology. Researchers

chose to focus on water and sanitation management as well as hygiene practices of HIV-positive women during menstruation.

Information from the TIPs was integrated into a WASH-HIV integration training guide and kit HIP developed. The team identified three organizations in Amhara working in home-based care (HBC) and conducted a training of trainers in Bahir Dar, in May 2008, for 28 trainers. These trainers went on to train 348 HBC workers in their respective organizations to integrate WASH into their home care activities.

In 2009, HIP organized an integration workshop for the community of practice NGOs. Geared toward decision-makers, the workshop explained how to integrate WASH into existing HIV activities and emphasized the need to bring together the WASH and HIV sectors to work in tandem. HIP followed up individually with these organizations to help cement the ideas into their activities and work plans.

Later that year HIP reworked the training and in June conducted a training of trainers (TOT) for the community of practice NGO trainers. By then the COP had grown to nine active organizations. HIP involved government trainers from the national HIV/AIDS Control Program (HAPCO) and the Ministry of Health in delivering the training and in reviewing and finalizing the training materials. At the end of 2009, HIP held an evaluation workshop to share indicators that organizations could use to monitor and evaluate their WASH-HIV activities. In 2010, COP members met to discuss progress to date and to share their projections for the remainder of the year.



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

Photo Credit: Eleonore Suemo, AED

Accomplishments

- USAID/HIP/HAPCO developed a WASH training manual for home-based care workers.
- HIP trained 78 master trainers who can train others to integrate WASH into HIV.
- Twelve organizations have participated in numerous WASH-HIV integration activities and are expanding the reach of these activities throughout their organizations and their local NGO/CBO partner organizations.
- Over 1,000 outreach workers have been trained to use the WASH-HIV materials.
- Over 125 health care workers have been trained.
- At least 8,000 PLHIV were reached with WASH messages through community conversations.
- A WASH-HIV Integration Kit was developed and more than 300 copies were distributed to all COP partners.
- COP partners have distributed the materials further to local organizations.

Lessons Learned

- Building a community of practice requires a driving, committed champion. Most organizations involved in HIV/AIDS prevention and support and key WASH organizations need to be co-opted into the community of practice to influence policies and create materials/programs/small doable action lists. HIP championed this effort in countries where it worked, but in the future some other organization/individual will be needed to drive the integration.
- Maintaining quality during roll out training can be challenging. HIP found that few individuals in each TOT became sufficiently facile with the technical information and training techniques to train others successfully. Maximizing the use of these highly competent individuals is essential to success. Supportive supervision and spot-checking subsequent rollouts can help to identify when training content is changing in negative ways, and therefore where to strengthen training before extensively replicating.
- A cross-cutting lesson was the importance of attending to the “hardware” and enabling technology for feces management. One strategy for promoting improved sanitation practices includes funding and setting up model latrines in key places (such as health centers, churches, or markets) to show how simple modifications such as support poles or wider door openings can increase access. Promoting these improved latrines for the elderly and others with limited mobility can reduce stigma.

Looking Ahead

Many COP members have already integrated WASH-HIV into their programs. New HBC workers will be trained in WASH-HIV and those already trained will receive refresher training. More people will be reached with this information through community conversations. Some organizations have highlighted the need to translate integration materials into other Ethiopian languages.

Uganda

HIP’s activities in Uganda were implemented from April 2007 to March 2010, under a subcontract between AED and Plan International. The main implementing partners in Uganda were Plan International (Uganda) and the Uganda Water and Sanitation NGO Network (UWASNET), under the broad umbrella of the National Sanitation Working Group. Additional partners included the Government of Uganda through relevant line ministries both at the national and district level. In January 2008, HIP initiated a program to integrate WASH into home-based care of PLHIV in Uganda to address poor WASH practices in homes of HIV-positive individuals.

An active and engaged working group was formed that eagerly supported and participated in all levels of project activities. The Ministry of Health (MOH) integrated the WASH approach into its HBC policy and tools and urged all implementers to do the same, thus guaranteeing sustainability of the approach. The working group consisted of 26 members. Of these, seven participated in the pilot implementation, and all integrated the intervention into their HBC programming. In addition, the HIP team was invited to participate in the review and updating of the MOH/WHO Caregivers’ Handbook for HBC.



HIP trained home-based care workers in hygienic menstrual care practices for their HIV-positive clients such as using banana fibers to make a menstrual pad.

Photo Credit: Elizabeth Younger, Manoff Group

A comprehensive set of guidelines and training resources for trainers and HBC providers were developed to support WASH integration into HIV/AIDS home-based care programming. The materials focus on four areas—hand washing; treatment, safe storage, and serving of drinking water; feces handling and disposal; and appropriate management of menstrual blood. The materials developed included a training manual for HBC trainers, a participant’s guide for field workers, training handouts, and an assessment tool and 23 counseling cards (in English and five local languages). The assessment tools and counseling cards are primarily pictorially based with extensive illustrations to help viewers understand the recommended behaviors (or SDA), especially for caregivers with low literacy levels. Drafts of all the materials were submitted to working group and trainer sub-group meetings for extensive review and input during various stages of development.

Formative research included focus group discussions and in-depth interviews, and the findings were used to identify SDAs that households were encouraged to adopt. Using TIPs, households and HIV-positive individuals tested the SDAs and reported back on their success or failure and helped refine the practices. An eight-week pilot was implemented in Kampala and Mukono between May and July 2009, by six (out of seven HIP-trained) partner HBC organizations.

A three-day workshop familiarized staff with the tools and materials so they could successfully pilot them alongside their routine HBC activities. SDAs and materials were revised based on feedback. During the pilot training, field staff and volunteers requested that the counseling cards and assessment tool be translated into five local languages.

Two workshops were held in October 2009, for 47 master trainers of 23 HBC organizations. Designed to be highly practical and interactive, the workshops ensured that the trainers were comfortable enough with the concepts, SDAs, and tools to be able to train others and to integrate the approach into their own existing organizational training programs. The master trainers then trained staff in their respective implementing organizations. The National Community of Women Living with HIV/AIDS won an international award from Cordaid of the Netherlands largely due to its participation in promoting WASH practices to enrich its HBC programming during the WASH pilot. Additional intensive technical support was provided to four HBC organizations for five months between November 2009 and March 2010, to help with integration activities.

The project’s outputs were disseminated at a two-day end-of-project workshop in March 2010. Stakeholder consultative meetings were held at different stages of the project’s implementation to disseminate results and discuss progress and capacity for integration by different stakeholders.

Accomplishments

- A total of 73 trainers were fully trained using the WASH tools (through a HIP-organized TOT in October 2009, and its partner TASO’s March training); a total of 160 community field workers were trained from the coalition organizations; 32 members of Nsambya Home Care staff received WASH orientation and 22 trained for the pilot. This gives a pool of over 297 resource persons in the country to support WASH promotion.
- Five HIP partner organizations (the community of practice) banded together to seek further funding to integrate WASH into their organizations. They developed a letter of intent and hosted a donor breakfast to generate interest. As a result, the STAREC JSI Project agreed to fund NACWOLA’s integration activities in eastern and central Uganda. All the COP organizations integrated WASH into their work plans, budgets, and job descriptions.
- HIP produced and distributed 300 copies of its training manual, 600 copies of its participant’s guide, and 600 copies of training handouts. Participating HBC organizations also received 600 sets each of English, Luganda, and Swahili counseling cards and 350 sets in Ateso, Acholi, and Runyakitara.

- Organizations were able to “stretch” their training budgets and include WASH into already planned training sessions as was done by TASO and Nsambya Home Care. The same materials (participant’s guide and counseling cards) used in one session were reused in subsequent sessions, thus eliminating the cost of printing new materials. MOH easily integrated WASH into the MOH/WHO Caregivers’ Booklet and into the Village Health Teams Manual.
- Organizations started considering neglected areas such as menstrual blood management in their work.
- Hospice re-introduced hand washing in its outreach work, which had been abandoned because of a perception that it was a stigmatizing practice for their clients.
- PACE and the Uganda Health Marketing Group were made aware of conflicting instructions regarding use of AquaSafe and WaterGuard water treatment tablets, particularly in relation to when to filter water and the duration of the quality of water treated by chlorination.
- Tippy taps became an advocacy tool for getting management to embrace WASH as some organizations realized a reduction in water bills when tippy taps were installed. Families were excited about tippy taps because they were easy to make and yet effective in reducing amounts of water used for hand washing, making it feasible to wash. Furthermore, ash was eagerly accepted as a freely available resource for hand washing, especially where there was a scarcity of soap. This helped people develop a positive attitude toward changing WASH practices and encouraged them to tackle more difficult behaviors like menstrual blood and feces management.

Lessons Learned

- There is keen interest in integration of WASH into HBC, and when tools are combined with some technical support for training and programmatic integration, uptake of the approaches has high potential for success, especially if activities are integrated into existing programs.
- Some of the least likely partners often produce the most successful results. Examples include NACWOLA, which due to its limited resources was initially dismissed as an unlikely partner, but has been successful in its integration efforts.
- With limited time, it makes sense to focus on a small number of partners to ensure they are fully supported, instead of working with many partners and spreading resources too thin and undermining the success of integration efforts. The HIV/HBC component focused its technical support in the last six months on four core partners and achieved tremendous success in terms of integration.

Looking Ahead

Plan Uganda integrated WASH into a number of its upcoming activities and new projects, which will ensure replication of best practices from the Tororo pilot. The initiative presents a unique opportunity for Plan Uganda to ensure that all community-level health workers acquire the requisite skills to integrate WASH into their existing HIV/AIDS programming efforts. In addition, 23 organizations involved in the pilot and master trainer trainings have integrated WASH into their existing HBC programs. The national policy and guidelines on HBC are being reviewed to include WASH interventions that HIP developed. This means that all providers of HBC and palliative care will address WASH. The Ministry of Health also plans to include WASH in Village Health Team trainings.

Kenya

USAID/Kenya provided field support for a WASH-HIV integration activity, which began in late 2009, with an assessment of the environment and conversations with NGOs and the government at the national level and in three provinces: Coast, Nyanza, and Western. The work in Kenya moved quickly as it built on the lessons learned in Ethiopia and Uganda and benefited from the existing research and training materials.

The HIP team reviewed existing policy guidelines and offered suggestions to improve the WASH-HIV links as part of its effort to strengthen government and NGO stakeholder capacity. The team also worked to engage government stakeholders and others in accelerating the adoption of policy recommendations and plans for integrated programming.

Rather than conduct original research, HIP held two workshops in the different provinces to validate and adapt the small doable actions that were developed in other parts of East Africa. From these workshops, the team finalized Kenya-specific SDAs. As HIP involvement in this activity concluded, the project was in the process of finalizing Kenya-specific tools and training materials based on the results of the regional formative research and HIP materials developed for Ethiopia and Uganda. These tools will be reviewed and validated by a government-sponsored technical working group so that any materials produced will be endorsed by the government. USAID/Kenya is expected to continue funding this activity under another program mechanism.

In September 2010, HIP trained facilitators from the three provinces to integrate WASH promotion into HIV programs. Nine trainers from each of the three focal provinces attended and will be available to train others in the future. These trainers were selected to serve as champions, not just functionaries.

Accomplishments

- HIP reviewed national HIV/AIDS policy and guidelines and developed an advocacy strategy. Specific input was given for the newly developed National Nutrition and HIV Guidelines.
- Kenya-specific small doable actions were finalized for improving safe water, sanitation, hand washing, and menstruation management.
- The project trained a cadre of 29 trainers to integrate WASH into HIV programs through the community strategy, and trainers from the government training institutes served as co-trainers on WASH-HIV integration.
- Kenya-specific WASH toolkit is being prepared for national government endorsement.
- HIP project manager served as WASH co-chair of the Hygiene Promotion Technical Working Group and conducted advocacy with government and NGOs on WASH-HIV integration.

Lessons Learned

- When certain conditions are met, small doable actions can be validated through a consultative process rather than through full-blown formative research. This speeds the process.
- Existing materials can be adapted through various processes rather than be reinvented. The Kenya modules take elements from both the Uganda and the Ethiopia training materials.

Looking Ahead

USAID/Kenya intends to continue funding this activity through a new mechanism to maintain continuity. Plans for the coming year are to refine the materials, translate them into Kiswahili and other local languages, and to expand the program to reach all provinces. In addition, the team has been talking with other potential partners such as UNICEF and NGOs to see how to move these activities to the districts and communities. The government has shown keen interest in these efforts and is supporting the activities and roll out.

WASH and HIV/AIDS Integration Products and Resources

Global Resources

WASH and HIV/AIDS Resources for Planning, Programming and Assessing. 2010.

<http://www.hip.watsan.net/page/4489>

How to Integrate Water, Sanitation, and Hygiene into HIV Programs to Improve Lives. WHO, USAID-HIP. 2010. http://www.who.int/water_sanitation_health/publications/9789241548014/en/index.html

Programming Guidance for Integrating Water, Sanitation, and Hygiene Improvement into HIV/AIDS Programs. 2008. <http://www.hip.watsan.net/page/2458>

Programming Water, Sanitation, and Hygiene (WASH) Activities in U.S. Government Country Operational Plans (COPs): A Toolkit for FY2010 Planning. <http://www.hip.watsan.net/page/2708>

Analysis of Research on the Effects of Improved Water, Sanitation, and Hygiene on the Health of People Living with HIV and AIDS and Programmatic Implications. 2007.

<http://www.hip.watsan.net/page/4142>

Ethiopia Resources

Trials of Improved Practice: Determining Feasible Water and Feces Management Small Doable Actions for HIV Programs in Ethiopia. 2009. <http://www.hip.watsan.net/page/3215>

Integrating Water, Sanitation, and Hygiene into HIV Programs in Ethiopia. 2010.

- Trainer's Guide <http://www.hip.watsan.net/page/4218>
- Participant's Guide <http://www.hip.watsan.net/page/5334>
- Counseling Cards in English and Amharic <http://www.hip.watsan.net/page/4562>

Uganda Resources

Improving Water, Sanitation and Hygiene (WASH) Practices of Ugandan Home-Based Care Providers, their Clients and Caregivers in the Home. 2009.

- Participant's Guide <http://www.hip.watsan.net/page/4042>
- Trainer's Manual <http://www.hip.watsan.net/page/4043>
- Training Handouts <http://www.hip.watsan.net/page/4025>
- Counseling Cards and Assessment Tool in English and five local languages (Acoli, Ateso, Kiswahili, Lugandan, and Runyankole-Rukiga) <http://www.hip.watsan.net/page/4064>

Testing Small Doable Actions to Improve Hygiene Practices in for People Living with HIV/AIDS. December 2008. <http://www.hip.watsan.net/page/4396>

Focus Group Discussions and In-depth Interviews to Identify "Small Doable Actions" to Improve Hygiene Practices in the Care of People Living with HIV/AIDS. December 2008.

<http://www.hip.watsan.net/page/4395>

Sanitation

In 2005 HIP assessed the state of sanitation programming in developing countries and found that the sanitation sector was in a state of fundamental transition. Consensus among sanitation specialists indicated that traditional supply-side approaches were not working, and that the external (e.g., donor and government) funds required for household sanitation infrastructure were not nearly sufficient to provide the level of household access to improved sanitation that would meet the sanitation Millennium Development Goals (MDGs) (halving by 2015 the proportion of people without access to improved sanitation). New sanitation approaches were placing more responsibility on households to purchase their own sanitation solutions through the open market and these approaches were using behavior change messages that relied much more on socio-cultural normative approaches (e.g., peer pressure) than on health and hygiene improvement messages. Raw demand for household sanitation and solutions to open defecation behaviors were being studied through approaches such as CLTS. Sanitation marketing programs were helping consumers articulate their demand for sanitation products and services and meet that demand through strengthened private sector supply. The traditional top-down, supply-driven approaches to household sanitation access, because of high cost and limited sustainability, were becoming outmoded.

HIP actively identified opportunities to contribute to this paradigm shift and engaged in field sanitation programs in four countries—Ethiopia, Madagascar, Uganda, and Peru, which are highlighted below.

Ethiopia

Changing age old and culture bound behaviors related to hygiene and sanitation demands continuous development of innovative ideas, tactics, coordination, and partnering with stakeholders targeted toward cultural change and skills development. WSP/HIP supported the development of the Community-Led Total Behavior Change for Hygiene and Sanitation program in Amhara to deliver quick and sustainable results in hygiene and sanitation behavior change at the community and household level.

The backbone of the outreach happened through Ethiopia’s Health Extension Program. WSP/HIP worked through the regional Health Extension Program to enhance the capacity of health extension workers to use CLTS techniques to “ignite” their communities to end open defecation, and then go house to house to negotiate improved hygiene and sanitation practices—a process the health extension workers themselves named *mikikir*.

Health extension workers, their supervisors, and other outreach workers received two weeks of training to strengthen behavior-change and monitoring at the household level. Rather than promote a single, ideal practice, health extension workers partnered with family members to assess current WASH practices, and then chose one or two practices—SDAs—that family members agreed to try. This approach built on the

sanitation ladder concept, which starts with the unacceptable practice of open defecation and moves people toward the ideal of an improved pit latrine or even a modern pour-flush option. Likewise, options were offered for household water safe storage and handling—covering water containers or serving water with a ladle—and hand washing—making a tippy tap, placing hand washing stations at key locations, etc.



Photo Credit: Julia Rosenbaum, AED

Health extension workers encouraged families in Amhara to move incrementally toward this ideal—an improved pit latrine with hand washing station.

Accomplishments

- In all venues where the program has been introduced the audiences have shown concern, understanding, and great motivation for change.
- Training manuals and materials were written to aid in the replication of this approach throughout the region of 20 million and to other regions, including the “Woreda Resource Book for Community-Led Total Behavior Change in Hygiene and Sanitation,” “Facilitator’s Guide for Training in Community-Led Total Behavior Change in Hygiene and Sanitation,” “Health Extension Worker Handbook,” and health extension workers job aids.
- HIP/WSP also supported the creation of a resource center within the Amhara Regional Health Bureau to serve as an information and knowledge exchange center on WASH issues.

Lessons Learned

- Continuing the focus on stakeholder mobilization is essential. The more community members are involved and the more HEWs are supported in their efforts, the more sustainable behavior change is ensured and accelerated.
- Hand washing behavior proved to be more difficult to change than latrine use because of multiple barriers—having adequate water supply, money to buy soap, superstition related to the use of ash, etc.
- Although most latrines don’t meet minimum quality standards, community rejection of open defecation and the start of using latrines is the first step toward greater behavior change. With adequate, persistent, and proper follow up and household mikikir (dialogue) the change process can go to the next level.

Looking Ahead

Decentralizing the ignition process and shifting responsibility to the local level for hygiene and sanitation is imperative for expanding ignition and ensuring sustainability. Putting cluster leaders in charge of follow-up and monitoring will maximize success in behavior change. These cluster leaders should explore options for transportation so that they can more easily move about to support ignition, conduct follow-up in kebeles, and perform or follow their environmental health plans whenever they visit zones and municipalities. The Regional Health Bureau, zones, and woredas must develop a mechanism to follow hygiene and sanitation promotion in kebeles. Cluster leaders in the region, focal persons in the zone and woreda, and health offices must scrutinize results monitoring, give feedback, and organize remedial action whenever the need arises.

As one of the signatories of the MOU for WASH, the Regional Health Bureau should play a major role in stimulating and coordinating the WASH program in the region so that hygiene and sanitation are equally important activities in other sectors (education, water). So far CLTBCHS implementation is happening in donor supported woredas. About 50 out of 150 woredas in the region have received no special attention or funding, and the Regional Health Bureau must plan to target these districts to realize the 100 percent Universal Access Plan in Amhara.

Ethiopia Sanitation Products and Resources

Woreda Resource Book: Community-Led Total Behavior Change in Hygiene and Sanitation. July 2008. <http://www.hip.watsan.net/page/2876>

Training in Community-Led Total Behavior Change in Hygiene and Sanitation: Facilitator's Guide. January 2009. <http://www.hip.watsan.net/page/3213>

Health Extension Worker Handbook: Community-Led Total Behavior Change in Hygiene and Sanitation. January 2009. <http://www.hip.watsan.net/page/3214>

Job Aids for Health Extension Workers <http://www.hip.watsan.net/page/3524>

Monitoring and Evaluation Framework for the Amhara Region "Learning by Doing" Program to Achieve Universal Hygiene and Sanitation. December 2008. <http://www.hip.watsan.net/page/3190>

Amhara Regional Behavior Change Strategy. 2007. <http://www.hip.watsan.net/page/5304>

Madagascar

Initially HIP approached sanitation in a traditional manner, promoting improved latrines and helping families to obtain latrine slabs through subsidized channels such as HIP-trained and supported local masons. Since HIP's mandate excluded hardware provision, HIP identified hardware partners such as the FID (Fonds d'Investissement pour le Développement), a World Bank-funded community development program providing water and sanitation, and trained FID community workers to include hygiene promotion in their activities.

When the USAID Mission in Madagascar added water earmark funding to supplement the project's funding, HIP improved access to enabling technologies demanded by those exposed to hygiene promotion messages. Specifically, HIP hired several technicians who designed and conducted needs assessments in schools and health centers to identify opportunities for simple repairs and rehabilitation among existing water/sanitation facilities, rather than engage in actual construction. The actual rehabilitations could not be carried out due to the USAID directive that restricted use of funding after the 2009 coup.

Also prior to the coup and in response to USAID's request to seek innovative ways to improve access to WASH products and facilities, HIP mapped out a strategy for developing sanitation business models. Two models had potential for success in the Madagascar context: 1) privately owned public pay-for-service toilet/shower/laundry facilities appropriate for urban areas, and 2) sanitation/hygiene stores or product lines for hardware stores financed through specially designed bank loans. HIP commissioned consumer preference and ability to pay surveys that informed the business plans for the two models. Though the coup delayed this component, the ideas were adapted for public-private sanitation partnerships after new program directions were established.

UNICEF trained HIP and its other WASH partners in CLTS methodology to end open defecation, and HIP piloted the approach in Amoron'i Mania to complement the energetic Rapid Results Initiative (RRI)/Latrines program—a government-sponsored program that challenged each region to identify very ambitious goals for rapid results in three months. This approach to end open defecation without



HIP hosted a community event to introduce its latest bloc sanitaire, a model that looks increasingly viable as a sustainable, money-making enterprise.

Photo Credit: Shahbaz Fawbush

subsidies and outside assistance was integrated into other regions' efforts. HIP adopted the —hybrid” approach from Ethiopia linking CLTS to improved hygiene practices and to outlets and loans for purchasing improved latrine slabs from trained masons and local hardware stores.

After the coup when USG redirected the program away from government institutions, HIP expanded nongovernmental activities and sanitation marketing formed one core element. HIP also worked through a network of community animators to promote CLTS. The sanitation marketing component yielded three promising models.

Public-private partnerships for urban neighborhood toilet/shower facilities. HIP renovated dilapidated public toilets owned by the commune and facilitated a partnership between the commune and a privately contracted facility manager, often a reputable NGO. The manager maintains the facility, collects user fees, and pays both his/her own salary and a monthly contribution to the commune. The commune sets up a revolving fund with the monthly contribution to refurbish additional facilities. This approach has become an integral part of the WASH-friendly market/taxi hub model. Demand for accessible, clean facilities is very high as is the potential for generating income. One facility registered 12,000 users in one month. The urban commune of the capital city is replicating this model in 36 neighborhoods without HIP assistance.

Sanitation products points of sale. HIP worked with three or four small-scale concrete production workshops in three regions to produce the improved SanPlat latrine slab for resale in hardware stores at low cost. Currently 48 sales points operate in three regions; demand and sales are high in the small towns surrounding the capital city without any additional promotion. In more rural areas or remote towns where people are poorer, sales are slower. Latrine slabs are marketed with soap and Sur'Eau chlorine treatment but rarely sold as a package. Through HIP, vendors provide brochures to SanPlat customers that explain how to build improved latrines.

Local masons trained to make and sell SanPlat slabs and build household latrines. The third model is linked with CLTS and evolved from the RRI/Latrines program. HIP trained local masons to make SanPlat slabs and build latrines that meet safety and environmental standards. Masons then received slab molds and were encouraged to start a business, work for the commune to meet the demand for household latrines generated by RRI or CLTS, or join small NGOs that build and sell latrines as part of their community improvement efforts. These masons were trained in simple business practices as time permitted.

Accomplishments

- Piloting Madagascar's first ever CLTS program was met with great skepticism but proved to be very effective. Eighty-eight villages became open-defecation free, proving that even in rural areas with difficult access and high poverty levels, zero subsidy latrines can be built. HIP has initiated CLTS in other regions, including Atsinanana on the coast where traditional leaders are notoriously opposed to changing open defecation. According to reports from HIP's Atsinanana regional coordinator, not only has CLTS worked so far, other communities have requested that HIP facilitators come and lead them through the CLTS process.
- Developing several innovative public/private sanitation models: Madagascar has little experience with public-private partnerships, and actually its private sector is relatively weak. In this environment, HIP staff developed the promising blocs sanitaires PPP model. The other model involves establishing a sanitation credit line with local microfinance institutions and small sanitation product businesses to help low/middle class families purchase latrines and other sanitation products. This effort has just been launched and is the first of its kind in Madagascar.

Lessons Learned

The sanitation approaches HIP started are quite new and as yet not too many lessons have emerged. However, we can say that:

- Marketing of sanitation products (SanPlat latrine slabs) through local hardware stores has had mixed results. Sales have been brisk in the periphery of the capital city. In other urban areas such as Ambositra and Fianarantsoa, the uptake of latrine slabs through this channel has been markedly slower. HIP is dropping this approach for the moment except possibly around Antananarivo.
- CLTS is effective, but it is difficult to move people up the sanitation ladder after investing in a household latrine considered unimproved. Community members put everything they can into a new household latrine using locally available materials. If HIP or anyone else insisted that they then upgrade via SanPlats, there would be a negative reaction and credibility would suffer. It is critical for HIP and partners to experiment with a hybrid CLTS model that helps people step right onto the “improved” rung of the ladder.

Looking Ahead

HIP’s CLTS effort has shown that it is possible to promote zero-subsidy household latrines even in remote and difficult areas such as rural Madagascar. As with the rest of the HIP/Madagascar program, funding received from the USAID Mission for an additional year will allow these innovative and promising sanitation approaches to continue under another project mechanism, applying some lessons from the previous years, including the need for a hybrid version of CLTS as mentioned in the Lessons Learned section above.

Peru

HIP began its cooperation with Water and Sanitation Program in Peru in July 2006. USAID/Peru facilitated the collaboration between HIP and WSP/Peru on the Alternative Pro-Poor Solutions in Sanitation (APSS) Initiative. Markets were started in five pilot districts representing different geographies, economies, cultures, and demographics. WSP contracted the international NGOs listed in the table below to implement the activity.

REGION	DISTRICT(S)	NGO	NOTES/TARGET POPULATION
Callao (Lima)	Pachacutec	ADRA	Peri-urban migrant population/(51,000)
Cusco	Chinchero	ADRA	In town and rural surroundings/(10,000)
Cajamarca	Namora, La Encañada	CARE	Focus on La Encañada/(22,400)
Ancash (Huaraz)	Independencia	CARE	Urban Huaraz and rural environs/(61,700)
Loreto (Iquitos)	Belén	CARITAS	Pilot ended in 2009/(66,800)

Simultaneously WSP/Peru sponsored and facilitated a National Sanitation Marketing Steering Committee that involved key private and public sector leaders in Peru. It functioned to educate and to build momentum and buy-in from key national decision-makers to understand and embrace the sanitation marketing approach. Originally funded for two years, APSS was extended for a third year and then again for a final year through June 2011. The initiative name also changed; it is now the Creating Sanitation Markets Initiative (CSMI).

HIP became a formal member of the initiative's Steering Committee and participated in selecting the coordinator in late 2006. Specifically, WSP/Peru asked HIP to: provide technical assistance to develop formative research guidelines; develop a monitoring and evaluation framework for implementation by program partners; and assist in documenting and disseminating the lessons learned throughout the country and internationally.

HIP contributed to developing terms of reference for formative and baseline research for sanitation marketing options and to the initial analysis of the results. In August 2007, a HIP staff member returned to Peru to participate in reporting on four baseline assessments (marketing, supply chain, consumer preference, and enabling environment); to support strategic planning and program design; and to draft a general SOW to define HIP's support

role. Over the next three years HIP provided ongoing home office technical support to APSS and hired Peruvian consultants who supplied monitoring and documentation support for the initiative. HIP conducted the internal assessment of the APSS, which included detailed findings and recommendations for each of the five pilot areas while also addressing crosscutting and global issues facing the initiative.



This landlord installed improved toilet facilities on her property as an income-generating activity.

Photo Credit: Scott Tobias, ARD

Accomplishments

- Provided targeted technical assistance to program design in 2007 that helped the initiative develop a sustainability and replication strategy that focused on building private sector capacity in the pilot marketplaces to perform key market functions after APSS closeout.
- Provided inputs on hardware, infrastructure, and environmental impact issues. This included technical briefs on onsite toilet and latrine technologies and solids handling and a review of the catalogue of technical offerings.
- Made significant ongoing contributions to program monitoring and evaluation.
- Facilitated communications about APSS activities with multiple external audiences, including the 2008 World Water Forum in Istanbul, Turkey, World Water Week in Stockholm, Global Health Council conferences in Washington, DC, and various USAID fora.
- Fielded a two-person team to conduct a formative evaluation of the APSS Initiative in May 2009, which informed the design of an additional year of programming under the renamed CSMI.
- Provided a summer 2010 intern in conjunction with the Stephen M. Ross School of Business at the University of Michigan. The intern spent three months in Peru preparing two case study reports on CSMI/APSS experience with the microfinance sector serving the home improvement/ sanitation markets in Cusco (a regional bank) and in Cajamarca (village banks).

Lessons Learned

- Given that proactive large-scale private sector leadership in sanitation markets has not emerged, significant third party investment appears necessary to replicate the sanitation market results obtained in pilot districts.
- A high quality, integrated (hardware, finance, service, installation approach) product that is both affordable and easily understood by the consumer is not easy to put together or to market.
- The most success and coverage—especially in reaching poorer market segments—comes when government participates—in the form of subsidy, technical assistance, organization, promotion, etc.
- Changing the paradigm in sanitation programming is a critical and time-intensive program element. Years of supply driven paternalistic sanitation programming has created a culture where household sanitation is viewed as something provided by the government. The initiative in Peru invested from six months to over a year to convince local government, implementing and partner NGOs, the private sector, and consumers that sanitation could and should be provided via the marketplace.

Looking Ahead

- The environmental impacts of connecting households to public sewers at scale will be significant as most of these sewers deposit untreated wastewater into rivers and other receiving waters.
- Continued work is required with the government to embrace intermediate onsite sanitation technologies that can provide environmentally sound service at affordable prices. For example, the blanket requirement of septic tanks for *all* onsite wastewater disposal systems eliminates what is often a viable and more affordable technical option of disposing wastewater directly into an absorption pit. Because the septic tank option is so expensive, it is not unusual for households to dispose of wastewater the same way as Peruvian public sewers—allowing it to flow directly into receiving waters.
- Ensuring the quality of services and products in an open market remains challenging. Certifying service providers, products, designs, etc. requires significant investments within the government and private sector.
- Creating user-friendly tools and guidance for third party actors that seek to replicate the work of the APSS (CSMI) implementing NGOs is needed.

Uganda

Sanitation marketing activities in Uganda had two broad objectives: 1) to develop and field test tools and approaches for rural sanitation marketing for inclusion in a sanitation marketing guidance manual for program managers and 2) to design and implement a sanitation marketing strategy for Tororo District. The project worked to increase sanitation coverage by creating sanitation marketing activities that enhanced the capacity of the private sector to supply sanitation products and services that were in demand by local households. The project also supported the enabling environment—local governments and financial systems as well as local NGOs and civil society actors that became key actors in creating demand for sanitation solutions.

Because the project had dual objectives of impact and producing guidelines and tools for replication, HIP undertook extensive research that provided valuable insights on the rural Uganda sanitation consumer and supply and service providers. In addition, HIP coordinated closely with and supported the National Sanitation Working Group to create broader support for the sanitation marketing approach.



Masons received training on latrine construction and dome slab production as a way to expand sanitation options and providers in Tororo District, Uganda.

Photo Credit: Morris Israel, ARD

HIP facilitated the development of a Sanitation Marketing Strategy for Tororo District, which will serve as a platform and model for other districts in Uganda to develop similar approaches, and provided technical support to the preparation of the district-level Improved Sanitation and Hygiene Promotion Financing Strategy. Slab technology turned out to be the key programmatic entry point into the local sanitation market. The project successfully introduced the unreinforced dome slab to Tororo District and built significant local capacity to construct it. This technology responded to local demand for an inexpensive, simple to construct, safe hygienic slab.

Accomplishments

- HIP trained 89 masons in latrine production techniques, supported by manuals and a technical options catalogue. After being trained the masons were able to construct unreinforced and reinforced concrete slabs, superstructures, and pits, as well as better market their services to consumers in their regions.
- HIP trained 17 health assistants, 14 financial service provider staff, and 14 hardware store operators to promote the sanitation marketing program and ensure a viable sanitation market.
- The four technical training institutes in Tororo District embraced their role as technical trainers in sanitation hardware as part of their mason certification programs. The training curriculum that HIP developed will likely be incorporated into the broader mason training curriculum, with the result that these institutes will teach construction of household sanitation infrastructure. This institutionalization of sanitation construction training is replicable to new geographies in Uganda.
- HIP sponsored three national-level stakeholder meetings on the sanitation marketing approach between October 2008 and March 2010, and in coordination with WSP produced a concept note for national level implementation of sanitation marketing. This concept note is under review by key national stakeholders, and Plan Uganda hopes to engage new partners to enter into future sanitation marketing activities.

- HIP led the production of appropriate marketing and communication materials. Developed by a local consultant/artist, the materials are currently being used by Plan Uganda and the Tororo District government to promote sanitation markets. The project also produced a number of documents to assist future sanitation marketing programs. (See list below.)

Lessons Learned

- Opportunistic partnering can result in unexpected successes, i.e., the partnership with the technical training institutes that have adopted construction of low-cost household sanitation infrastructure into home construction certification programs was unexpected at the start of activities.
- Programmers should be careful in leaping to large scale implementation if it means limiting the resources required to address key market functions like marketing, financial services, and supply chain development. Care must be taken to ensure that all aspects of the sanitation market are addressed and functional prior to embarking on implementation at larger scales; weaknesses in these other market functions can undermine otherwise successful efforts.

Looking Ahead

It is anticipated that the groundwork HIP developed in Tororo District will serve as the basis for replication in other Ugandan districts. The National Sanitation Working Group, with the strong support of WSP, is promulgating a nationwide program that may be able to access Global Sanitation Funds for implementation. Plan Uganda has incorporated sanitation marketing elements into its water and sanitation programs and is integrating these with their CLTS efforts.

Uganda Sanitation Products and Resources

- **Opportunities for Sanitation Marketing in Uganda.** 2007. <http://www.hip.watsan.net/page/3517>
- **Sanitation Marketing for Managers: Guidance for Tools and Program Development.** 2010. <http://www.hip.watsan.net/page/5007>
- **Sanitation Marketing Programme: Mason's Training Manual.** 2010. <http://www.hip.watsan.net/page/4391>
- **Sanitation Marketing Programme: Catalogue of Affordable Latrine Options.** 2010. <http://www.hip.watsan.net/page/4392>
- **A Sanitation Marketing Strategy for Tororo District.** 2010. <http://www.hip.watsan.net/page/5056>
- **In-depth Consumer Assessment Report for Sanitation Marketing Pilot.** 2010. <http://www.hip.watsan.net/page/4390>
- **In-depth Supply Assessment Report for Sanitation Marketing Pilot.** 2010. <http://www.hip.watsan.net/page/4389>



While HIP focused its at-scale efforts on Ethiopia and Madagascar, it also provided specialized technical support in hygiene and sanitation programming to a number of other countries: Nepal, Peru, the West Africa Water Initiative countries (Ghana, Mali, and Niger), and India. The type of assistance HIP provided was unique to each country’s circumstances and proved how adaptable basic behavior change and hygiene promotion approaches can be. Research conducted prior to program development and implementation in a number of countries shed light on the most promising approaches, which were often fine-tuned along the way.

Nepal

In collaboration with Nepal’s Department of Water Supply and Sewerage, HIP began working with UNICEF in 2006 on a comprehensive approach to improve water quality in four pilot districts—Panchthar, Parsa, Kapilvastu, and Dang—with the hope of taking the approach nationwide. The overall goal of this collaboration, called the Nepal Hygiene Improvement Project (NHIP), was to improve family health, especially among children under age five, by promoting better hygienic practices, including treatment and safe storage of drinking water and hand washing with soap. The project adopted a three pillar approach—access to necessary supplies and equipment; an enabling environment that includes supportive policy and institutional capacity; and promotion, including social mobilization, marketing, and education. The Government of Nepal, through the Department of Water Supply and Sewerage, and UNICEF served as the implementing bodies of this public-private sector effort, while HIP provided focused technical assistance.



Photo Credit: Arinita Shrestha, AED

Women’s groups that run small shops where they sell products such as honey, candles, soap, and handicrafts are now selling CS filters.

To guide the planning of NHIP’s complex behavior change component and design its program approach, UNICEF conducted a baseline survey of 1,800 households (and 200 change agents) in the four proposed districts with HIP support. The study revealed that 75 percent of surveyed households assumed their water supply was safe for drinking, though several nationwide studies contradicted this assumption.

Through an intensive interpersonal and extensive mass media promotion, NHIP aimed to increase public awareness of the benefits of improved storage and treatment of drinking water and hand washing with soap. At the same time, the project sought to increase access to and improve the affordability and quality of household water treatment products and create demand for these products.

A consumer product trial was also carried out at the beginning of the project to identify consumer preference and practice related to water handling, storage, and treatment at the point of use. Followed at various intervals, 80 households randomly selected from the baseline survey were asked to try one water treatment method and report on perceived effectiveness, taste, odor, effort, and family reaction to that treatment method. Water was also tested for improved quality. All methods showed a decrease in contamination with the exception of the colloidal silver (CS) filters, which showed an increase. This finding led planners to focus on household practice with the filters, and to focus even closer on the production and distribution of filters, which appeared to be cracking during transport or suffering from some manufacturing defects.

Because no one product emerged as the clear favorite, this research led to the project’s unique approach of offering choices of four water treatment options to households—locally produced sodium hypochlorite solutions (Piyush and WaterGuard), improved boiling, solar disinfection (SODIS), and filters, especially CS filters. All the methods effectively removed disease-causing bacteria to an acceptable level, were deemed cost effective based on the socioeconomic status of the target population, and had the potential to be (or already were being) produced in local facilities.



A village drama team demonstrates hand washing in a school compound in Dang District.

The project trained thousands of frontline community workers and volunteers, health personnel, school staff, retailers, and journalists to reach 500,000 households and increase their awareness of safe water treatment and hand washing with soap.

Based on findings from the baseline and product trials, the project developed a communication package that targeted key stakeholder groups. A mass media campaign included both radio and TV spots with messages of POU water treatment and improved hand washing practices, and traditional media such as puppet shows were also used.

No treatment methods other than boiling were readily available in project districts at the start of the pilot. The goal of NHIP was to improve the affordability, accessibility, and in some cases the quality of household drinking water treatment products. No direct monetary support was given to producers; instead a comprehensive package of support services was provided to promote products—from marketing and distribution support to technical advice. The goal was to encourage households to continually use and purchase improved, available, and affordable safe water products.

Accomplishments

- Nepal established a National Water Quality Steering Committee to formalize its commitment to address nationwide water quality shortcomings, with household water treatment and hygiene improvement as prominent components.
- POU treatment and hand washing promotion efforts expanded from a pilot program in four districts to the national level and have now reached 25 of 75 districts in Nepal through various program vehicles and channels. The project has great potential for scaling up, and various public and private networks are expected to reach all districts within the next few years.
- NHIP developed a range of communication materials that continue to be used by other agencies/organizations—fact sheets, basic hand washing materials, posters of the four water treatment technologies, and an interactive children’s book describing the importance of water and sanitation and key actions to take (available at <http://www.hip.watsan.net/page/2474>).
- Messages about safe water and hand washing continue to reach the public through a variety of channels. Nepal’s Epidemiology and Disease Control Division promotes these approaches to control the outbreak of disease in humanitarian disaster situations; UNICEF includes them in its School Sanitation Hygiene Education program; and many organizations including UN-Habitat and the Coca-Cola Company are all working to raise awareness of these approaches to hygiene improvement.
- Humanitarian organizations such as the Red Cross and Rotary International have used NHIP project materials for mass promotion and awareness-raising during cholera outbreaks.
- NHIP connected water treatment producers with stakeholders and generated demand for their products, improving marketing and distribution capacity and opening the door for new small scale entrepreneurs throughout the country. The project was instrumental in bringing about these developments:
 - Piyush production was funded by USAID’s N-MARC project for nationwide distribution.

- Local manufacturers of CS plastic and clay filters received technical assistance to make filters leakproof, more effective at removing bacteria, and less prone to breaking.
- A new POU chlorine tablet product, Aquatabs, entered the market and is being marketed and sold through various community programs and distribution channels.
- Radio spots promoting safe water and hand washing reached an estimated million-plus people in rural areas. Village-level promotion included street dramas that reached an estimated 70,000 villagers, and trained staff from 20 local NGOs reached 180,000 households through door-to-door promotion activities.

Lessons Learned

- NHIP's ambitious agenda of bringing about changes in hygiene and water treatment behaviors in a short period of time from almost no use to consistent and correct use required more extensive investment and human resources than were originally budgeted as well as a plan for targeted results. The project did raise significant awareness about the need to treat drinking water and wash hands with soap among the target population, however, more ongoing and strategic activities will be needed to bring about the sustained level of behavior change envisioned.
- The development of communication materials for safe drinking water treatment options was extremely challenging and took longer than anticipated. Choice was an important component of the POU promotion, and materials had to provide concise but correct and equal information about all four technologies so that households could make an informed decision based on advantages, costs, and limitations of each option. Further complicating matters was the need to make materials ethnically and geographically balanced.
- Extensive demonstration and review of the approaches and technologies was essential during the trainings to ensure promoters/trainers conveyed the correct messages. Water treatment and hand washing promotion were initiated in two separate phases at the community and household level to avoid imparting too much information. In addition, demonstrations of water treatment at the household level required promoters to transport bulky and fragile equipment to remote locations. NHIP refined its approach by setting up demonstrations in community centers and gathering spots. Promoters and trainers were occasionally mistaken for sales agents of products such as WaterGuard or CS filters, rather than promoters of safe water treatment options in general.
- While the project successfully created a demand for water treatment products in its promotion areas, producers continued to have difficulty meeting demand in remote locations because of limited human and monetary resources.

Nepal Products and Resources

Nepal Country Brief: Promoting Household Water Treatment and Hygiene. 2009.

<http://www.hip.watsan.net/page/3515>.

Bringing Consumers to the Table: Perceptions and Practice of Household Water Treatment in Nepal.

- Full report. May 2006. <http://www.hip.watsan.net/page/2497>; (brief) <http://www.hip.watsan.net/page/2496>
- Bringing Consumers to the Table: A Research Tool for Assessing Consumer Perceptions and Practice of Household Water Treatment Methods. May 2006. <http://www.hip.watsan.net/page/2498>
- Research Tool Annex. May 2006. <http://www.hip.watsan.net/page/2499>.

Amoeba & Water. 2009. <http://www.hip.watsan.net/page/3329>

Study on Effectiveness of Point of Use Drinking Water Treatment Technologies in Schools. 2008.

<http://www.hip.watsan.net/page/2474>

Peru

The USAID-funded Healthy Municipalities and Communities project managed by Management Sciences for Health (MSH) helped families and communities in seven Amazonian regions incorporate preventative health behaviors into their lives. Through a participatory process, communities identified safe water as a priority health need. MSH partnered with HIP to develop a program to generate behavior change at the household level leading to point-of-use water treatment through chlorination, solar disinfection, or boiling in an environment where a commercial water treatment product (such as WaterGuard, Aquatabs, or Pur) is not available and where almost no cultural norm exists for treating water. A pilot was carried out in the Curinmana District of Peru's Ucayali region and then scaled up to six additional regions.



Photo Credit: Elizabeth Younger, Manoff Group

After conducting formative behavioral and water quality research, a HIP/MSH team, with assistance from the Centers for Disease Control, developed appropriate water treatment techniques using household bleach, storage, and handling protocols for the Amazon region in Peru. These protocols were incorporated into a series of fun, engaging activities to encourage desirable POU water treatment, storage, and handling behaviors for family members. The activities covered the contamination/diarrhea cycle; use of chlorination, SODIS, or boiling to treat drinking and cooking water; steps to prevent contamination of wells; and proper hand washing and feces disposal. A two-day training program was developed to teach community outreach workers how to work with families and track their behavior change. Materials used during the training and/or community activities included a training manual; participant's reference guide; a large, plastic wall hanging flip chart; a small, brochure-size copy of the key *laminarios* (to be given to each family as a reminder material); a wall display board for each family to store their *recordatorios*; and some large flash cards to be used in an interactive game. See <http://www.hip.watsan.net/page/2517>.

Emphasis was placed on identifying small doable actions around POU water treatment, storage, and handling behaviors. In this way families who could not implement the "ideal" behaviors could still take incremental steps that they considered feasible and that led to personal and public health improvement even though they were not the ideal practices. Outreach workers successfully used the assessment tool, which was developed to help them identify current household behaviors and negotiate improved SDAs that could realistically be accomplished within the household context. A data gathering system was developed that allowed for feedback to the community and district personnel on household behavior change.

Accomplishments

- From October 2007 to September 2008, 87 training workshops were held in all seven regions on Enhancing the Quality of Water for community leaders and local and health personnel; 1,944 people (1,029 males and 915 females) attended the trainings. Some of the training participants were selected to lead trainings in their respective communities; 5,892 people were trained using this cascade approach. Activities within the community were well received, and demonstrated behavior change led to improved POU water treatment. The local government in the pilot area showed their support for the program by

requesting that their staff be trained and spending their own funds to ensure that all families in their district had appropriate water storage containers with tight fitting lids and spigots.

- Data collected between the second semester of 2007 and the first semester of 2008, showed a significant positive shift, from 49.9 percent to 60 percent, in the key indicator of number of children under the age of two who were consuming safe water—evidence of the intervention’s success.



Families learn how to treat their water using a locally available bleach product based on a protocol developed by HIP sanitation specialists.

Photo Credit: Elizabeth Younger, Manoff Group

Lessons Learned

- Developing a program to achieve water treatment, handling, and storage behavior change at the household level can be accomplished, even in the absence of a commercial product; however, it is necessary to carefully craft protocols that are appropriate for the region, develop a training program and materials that address local needs, and identify small doable actions that move families toward ideal behaviors.
- Repeated contact with families helps to ensure sustainability of new behaviors until they become new cultural norms.
- Creating tools that help communities obtain feedback on their progress motivates continued behavior change.

Peru Products and Resources

Research Brief: Case Studies in Sanitation Microfinance in Peru. October 2010.

<http://www.hip.watsan.net/page/5313>

Guia Comunitaria para el Mejoramiento del Agua y la Higiene Familiar. 2008.

(Spanish) <http://www.hip.watsan.net/page/2540>; (English) <http://www.hip.watsan.net/page/5326>

Manual de Capacitacion para el Mejoramiento del Agua y la Higiene Familiar. 2008.

(Spanish) <http://www.hip.watsan.net/page/2592>; (English) <http://www.hip.watsan.net/page/5325>

Related visual training materials and user reminder materials. 2008. <http://www.hip.watsan.net/page/2517>

Field Water Quality Assessment and Design of Comprehensive Systems to Improve Water Quality-Curmana District, Ucayali Region, Peru. Final Report. 2007. <http://www.hip.watsan.net/page/5316>

West Africa Water Initiative

HIP provided technical assistance targeted at improving the quality and breadth of hygiene promotion implemented by partners of the West Africa Water Initiative (WAWI). WAWI partners with field programs implemented activities focused on practices at the household level that may reduce waterborne illnesses, such as diarrheal disease, trachoma, and Guinea worm.

During the first phase of the initiative—WAWI I—the program operated in three countries (Ghana, Mali, and Niger) and brought together different types of organizations including: government agencies implementing specific disease control programs, international NGOs with project implementation responsibilities on the ground, local NGOs, private organizations, and funding agencies or international development agencies.

HIP's task to provide technical assistance in behavior change (BC) and monitoring and evaluation (M&E) to partners implementing WAWI I had two distinct phases. The first was from January to December 2006, and the second from January 2007 to September 2008. During the first phase a regional BC specialist operating out of Bamako, Mali, provided technical assistance to WAWI partners in all three countries to advocate behavior change activities among participating partners in each country and to form and/or strengthen a network of individuals working in BC among national partners and their capability to promote hygiene. During the second phase HIP's technical assistance focused exclusively on behavior change. Three BC specialists were hired locally and each worked in one WAWI country. HIP partner ARD Inc. hired the specialists, and HIP provided BC technical support. During this phase, the BC specialists were hired to:

- Strengthen hygiene programming capabilities among the WAWI partners in each country;
- Assist partners in developing and applying behavioral analysis skills, across hygiene and sanitation domains, according to the WAWI partners' needs; and
- Help partners develop a common BC strategy in each country and improve the partner organizations' technical ability to implement the strategy through a community of practice approach to behavior change.

First HIP implemented activities to develop the technical and project management expertise of the BC specialists. Next HIP targeted the staff of the WAWI partners directly with BC skills workshops on hygiene promotion. Through these capacity development activities, the BC specialists helped participants experience the value of hygiene promotion and behavior change in general, as well as learn how to conduct formative and monitoring research. In addition, these trainings also focused on the three behaviors of interest to HIP: hand washing with soap at critical times, hygienic or safe disposal of human feces, and household water treatment and storage. They also helped the WAWI partners address BC issues for persistent and recurrent areas of interest—Guinea worm and trachoma eradication, WASH for vulnerable populations, and water supply system maintenance—and associated family hygiene practices.

In addition the behavior change specialists used a spectrum of strategies to help leverage resources in support of behavior change activities. For example, to convey hand washing messages to a broad audience and multiple media outlets at no additional cost to WAWI, journalists were targeted through workshops with appropriate



Many peri-urban and rural communities in Ghana do not have access to sufficient water throughout the year—a major barrier to adoption of safe hygiene practices. These women carry water in open containers from an open well about 9 km away from their households.

Photo Credit: Sumaila Saaka

information about hand washing with soap at critical times. In the past WAWI partners relied primarily on health promoters and schools to convey hygiene messages. The BC specialists looked for new channels to help communicate these messages to new audiences or to reiterate the messages to similar audiences. Repetition and saturation in message transmission was the goal.

Both in Mali and in Niger, workshops informed organizations about the importance of paying attention to the sanitation needs of the handicapped, yet another vulnerable population. The activities were mindful that sanitation solutions need to be appropriate for certain population groups, such as the handicapped, and not only to the general public.

Accomplishments

- The behavioral analysis approach introduced by the BC specialists with HIP's guidance was, at the end of the period under consideration, being used as a conceptual model by both WAWI partners and collaborators to plan and refocus their hygiene promotional efforts. Examples of this change came from partners such as World Vision/Ghana, UNICEF, and New Energy.
- Many partners have a better understanding about how to plan, develop, implement, and evaluate workable BC strategies around WASH promotion as a complement to hardware provision; and how to think strategically about funding for hygiene promotion/behavior change activities.
- The partnership appears to have a greater appreciation for the need of formative research to guide the development, implementation, and evaluation of BC interventions.



WAWI partners have worked with communities and households to use tippy taps for hand washing with soap at critical times.

Photo Credit: Sumaila Saaka

Lessons Learned

- Getting WAWI partners to commit resources to BC activities required first identifying opportunities to advocate for hygiene promotion, empowering the partners to conduct hygiene promotion on their own, and having BC advocates gain technical credibility.
- Piggy-backing new hygiene promotion efforts onto similar activities with partners already leading BC activities paid off, even with a large international organization such as UNICEF.
- Locating the BC specialists in the project areas where WAWI partners operate permitted frequent contact with implementation partners. This proximity helps create bridges that would otherwise not emerge when technical assistance is provided from a distance or at the regional level.
- Providing donor community support for BC activities cannot and should not be short term, even if the disbursements occur in tranches.

WAWI Products and Resources

USAID Hygiene Improvement Project Support to WAWI: Final Report. 2009.

<http://www.hip.watsan.net/page/380>

India

In 2009 HIP received a modest amount of funding from USAID/India to support hand washing with soap programming. HIP agreed to provide technical assistance to another USAID-funded project, the Market Based Partnerships for Health (MBPH) managed by Abt Associates and Futures Group, in developing an all-India Hand Washing Alliance for childhood diarrheal disease prevention. MBPH was especially interested in being connected to international expertise in hand washing programs and in shaping alliances and public-private partnerships. The other requested area of technical assistance was in developing communications strategies for hand washing campaigns.

With the help of the Point-of-Use Water Disinfection and Zinc Project's director and AED/India, HIP hired two local consultants to assist MBPH. HIP staff and consultants developed a work plan and mapped out a calendar of implementation activities. HIP consultants provided support and input to build an alliance. They organized meetings with UNICEF, WSP, Save the Children, and Sulabh International to introduce the proposed alliance and to seek partnerships. Minutes of the meetings were prepared and shared with MBPH. After HIP established contacts with UNICEF in Lucknow (Uttar Pradesh), and with other local NGOs working on hand washing and hygiene issues, the focus of the alliance shifted from the national to the state level.

In March 2010 MBPH launched the Saathi Bachpan Ke Alliance with a focus on promoting best practices for reducing childhood diarrhea, including hand washing.

Accomplishments

- Organized a two-day technical workshop in Delhi to present hand washing- and health-related scientific and programming experience to USAID and MBPH staff.
- The project produced a reference list of potential alliance partners with organizational profiles, experience, and interest in hand washing, contacts, and logos.
- Created a presentation based on an extensive review of major research work done in India related to hand washing and alliances.
- Organized a study tour for two MBPH staff to Vietnam to visit WSP's At Scale Handwashing Program.

Lessons Learned

- Alliance building is a complex undertaking and having the right staff or consultants with the required connections, credibility, and vision is critical.

Looking Ahead

India has enormous need for hand washing programs, and working with public-private alliances and other partnerships has much potential.



Throughout its existence HIP has sought to share its program experience, products, and lessons learned with partners and other audiences in the countries where it works and globally. This has been done through participation in global and national WASH-related events and conferences, its monthly *Hip-Lights* newsletter and other products, project website, and e-learning events such as e-conferences and webinars.

Support for USAID Technical Leadership

USAID Sanitation Working Group

Lessons learned from HIP field experiences have formed the nexus of a major internal review and refocusing of sanitation programming at USAID—a process supported by HIP. Through the USAID Water Team, USAID’s Global Bureau of Health organized and facilitated a structured response to sanitation programming challenges for USAID, and HIP took on a key role in providing technical assistance to this effort.

HIP worked with Agency staff to help articulate an initial paper on sanitation programming strategy for its health-focused programs. HIP helped plan, host, facilitate, and document the initial USAID Sanitation Consultation, a two-day workshop held in June 2008. The “USAID Sanitation Consultation Synthesis Report” can be accessed at <http://www.ehproject.org/PDF/ehkm/sc-synthesis.pdf>. HIP also assisted in planning and preparing for the initial meeting of a USAID Sanitation Working Group (the creation of such a group was a key recommendation of the

Sanitation Consultation) and provided ongoing technical and planning support to the group's subsequent bi-monthly meetings, including note-taking and analysis.

As an offshoot of this support, HIP worked closely with the USAID Water Team and in partnership with USAID's Advancing the Blue Revolution Project to produce a WASH programming guide for USAID field staff to design scopes of work for procurement and assistance using funds from the Paul Simon Water for the Poor Act. HIP prepared additional USAID sanitation resources, including field communications on sanitation that went to USAID Missions worldwide and presentations on sanitation programs implemented through HIP.

USAID POU Partners Working Group

HIP staff regularly participated in meetings of the USAID POU Partners Working Group and kept the working group abreast of HIP point of use and other WASH activities. As part of the materials sub-group that HIP helped organize, 11 POU fact sheets were developed for the group by CDC's Daniele Lantagne (available at <http://www.hip.watsan.net/page/2848>) and reviewed by working group members and others. In addition, a WASH Training Package targeted at training community outreach workers in diarrhea prevention was developed in CD form for field dissemination, and also made available on the HIP website (<http://www.hip.watsan.net/page/3396>).

Technical Reference Materials

At the request of the USAID Global Health Bureau, HIP staff annually reviewed and updated "Technical Reference Materials for Diarrheal Disease Control for the Child Survival and Health Grants Program," which included research justifying the efficacy of hygiene practices, enhanced information on household water treatment options, hand washing, and sanitation approaches, and the addition of new WASH access and behavior outcome indicators developed by HIP.

<http://www.k4health.org/system/files/Diarrheal%20Disease%20Prevention%20and%20Control%202010.doc>

Partner Collaboration and Knowledge Sharing

Public-Private Partnership for Handwashing (PPPHW)

HIP staff participated in the PPPHW Steering Committee as well as number of working groups, including the Schools Working Group, Behavior Change Technical Working Group, M&E Working Group as well as on the Steering Committee. As a member of the various working groups, HIP helped develop the proposal on hand washing indicators for UNICEF's Multiple Indicator Cluster Survey and a training module on "Making Handwashing Behavior Change to Scale" for use at International Year of Sanitation events; participated in a Behavior Change Think Tank; refined the protocol for a study on hand washing technique to be submitted to PPPHW for funding; provided input for a preliminary monitoring approach to be used in the PPPHW scale-up countries; and reviewed terms of reference for several studies on behavioral determinants of hand washing practices being implemented by PPPHW.

In June 2009 AED was selected to assume responsibility of the PPPHW Secretariat. HIP provided technical support for the orientation of the new Secretariat coordinator and completed the transition of the secretariat's home organization from WSP to AED. Work on the Steering Committee in 2010 included reviewing the status of the partnership, including governance issues such as updating the partnership's mission statement and membership and making plans for upcoming PPPHW activities. These included outreach to country program leaders and development of a collection of hand washing research, program tools, and guidance. HIP also took an active role planning and supporting PPPHW's annual University of Handwashing and was a frequent presenter.

Global Handwashing Day

HIP staff participated in the Schools Working Group of the PPPHW. This group launched a new program at a meeting in London in October 2008 called Global Handwashing Day that would be celebrated worldwide and target school children. The working group included UNICEF, HIP, Unilever, CDC, P&G, and WSP. The group produced a planner's guide and advocacy tools for launching the day, and all partners spread the word to their country program managers and others. With help from private sector partners, Global Handwashing Day's appealing logo was developed and a website created. In the first year, the group expected 20 countries to participate but in fact 80 did. The second year saw even greater success as the event was linked to preventing the H1N1 flu. In addition, participants in India and Bangladesh broke a Guinness World Record for simultaneous hand washing. Many celebrities and dignitaries participated worldwide, and more developed countries held events in schools. For 2010 the group chose the theme of "More than a Day," translated the planner's guide into Arabic and Chinese, developed a monitoring and evaluation toolkit, an advocacy pack and 100 school survey, and a new playground game involving hand washing with soap called "GeBubbly."

Participation in Global and National WASH Conferences and Events

HIP also participated in numerous global and national water, sanitation, and hygiene conferences and events to share HIP program experience on many topics including working at scale in Ethiopia and Madagascar to promote behavior change for improved hygiene practices; explaining why WASH matters for people living with HIV/AIDS; sharing new approaches to sanitation marketing and creating WASH-friendly schools; and describing how to measure progress in WASH programming. Venues included:

- World Water Week in Stockholm
- World Bank's Water Week
- World Water Forum
- World Water Day
- LATINOSAN 2008 and 2010
- AfricaSan 2009
- International Network to Promote Household Water Treatment and Safe Storage
- Water, Engineering and Development Centre Conference
- West Africa Sanitation and Hygiene Symposium
- Rotary International's World Water Summit
- Water Supply & Sanitation Collaborative Council
- Water Environment Federation's Disinfection 2009
- PPPHW's University of Handwashing
- American Public Health Association Annual Meeting
- Global Health Council Annual Meeting
- WSP Workshop on Emerging Lessons in Sanitation Marketing
- The CORE Group, and others

Presentations from many of these and other events are available on HIP's website at:

<http://www.hip.watsan.net/page/313>

Other Knowledge Sharing

Global HIP Publications

In addition to the many country-specific materials developed by HIP and its partners to support program activities in the field, HIP developed new materials and in some cases adapted country-specific products for more global audiences. For a full list of HIP publications, see Annex 1.

- **At-Scale Hygiene and Sanitation Experiences and Lessons Learned in Ethiopia and Madagascar.** Reviews HIP’s overall approach to hygiene and sanitation improvement, the project’s two country applications, and lessons for future applications; includes framework and tools for working at scale. 2010. <http://www.hip.watsan.net/page/5306>
- **WASH-Friendly Schools Basic Guide for School Directors, Teachers, Students, Parents and Administrators.** August 2010. Adapted from HIP’s country-specific experiences, this basic guide outlines 13 steps to make a school WASH-friendly—adequate sanitation and drinking water, hygiene lessons and other promotion activities, and school-to-community WASH activities. Each step has an annex with the necessary tools to carry it out. <http://www.hip.watsan.net/page/5009>
- **WASH-Friendly Schools Training Guide for Parents, Teachers and Student Leaders.** August 2010. Adapted from HIP’s country-specific experiences, this training guide covers the basics of WASH and how to work together to make and carry out a plan for a WASH-friendly school. The guides propose activities based on the total sanitation approach and are full of examples and illustrations of in and out of class activities for students, teachers, and parents. <http://www.hip.watsan.net/page/5008>
- **WASH and HIV/AIDS Resources for Planning, Programming and Assessing.** July 2010. Based on HIP’s work to develop best practices, innovative tools, and evidenced-based approaches for integrating WASH into HIV/AIDS programming, this set of materials is organized as a one-stop resource for anyone seeking guidance on WASH and HIV/AIDS integration. <http://www.hip.watsan.net/page/4489>
- **How to Integrate Water, Sanitation, and Hygiene into HIV Programs to Improve Lives.** WHO, USAID-HIP. 2010. Guidelines on how to integrate WASH considerations into existing national HIV policies, guidelines, and handbooks and HIV programming. http://www.who.int/water_sanitation_health/publications/9789241548014/en/index.html
- **Sanitation Marketing for Managers: Guidance for Tools and Program Development.** July 2010. Developed through HIP’s program in Uganda, this manual provides guidance and tools for designing a sanitation marketing program. It guides professionals in the fields of sanitation and marketing to 1) comprehensively assess the current market for sanitation products and services and 2) use the results of this assessment to design a multi-pronged sanitation marketing strategy. July 2010. <http://www.hip.watsan.net/page/5007>.
- **Access and Behavioral Outcome Indicators for Water, Sanitation, and Hygiene.** February 2010. Prepared to help USAID and other organizations measure progress for hand washing, household water treatment and storage, and sanitation activities and provide guidance to implementers of WASH programs on what indicators to use to measure their programs’ achievements. <http://www.hip.watsan.net/page/4148>
- **Water, Sanitation, and Hygiene Improvement Training Package for the Prevention of Diarrheal Disease.** September 2009. Developed to help organizations worldwide add WASH activities to their current

programs or to start a diarrhea reduction program. Outlines a workshop to train local outreach workers and support their work in communities to promote improved WASH practices to reduce diarrhea. Consists of three separate parts: 1) a step-by-step —Guid for Training Outreach Workers,” 2) an —Outreach Worker’s Handbook” for community outreach workers to use during and after training, and 3) a —Collection of Resource Materials” to use as a source for visual aids. More than 2,000 copies of a CD version of the Training Package were produced and disseminated globally. Also available on HIP’s website at:

<http://www.hip.watsan.net/page/3396>.

E-Learning

In addition to participation in global and national fora, HIP held a series of collaborative events online to reach the broadest possible group of partners and others interested in sharing and learning about WASH topics. These activities included weeklong asynchronous conferences that enabled participants to ask questions, share information, and network, as well as real time webinars presented by HIP technical experts.

E-Conferences

Household Water Treatment and Storage E-Conference

HIP held its first e-conference on Household Water Treatment and Storage, May 10–24, 2006. To frame the discussion, two position papers were written. Theme 1, —Household Water Treatment and Storage: What Can the Poor Afford?” was written by Hamdiyah Alhassan and Wahabu Salifu, social entrepreneurs from Pure Home Water in Tamale, Ghana. A second study by Ratan Budhathoki, Laxmi Paudyal, and Santosh Basnet from Nepal Water for Health in Kathmandu, Nepal, focused on Theme 2, —How Do Programs Promote HWTS and Ensure that the Government Continues to Supply Improved Drinking Water Sources?” Susan Murcott from the Massachusetts Institute of Technology wrote the background paper: —Implementation, Critical Factors, and Challenges to Scale-Up of HWTS Systems.” Over 550 people were invited to join the discussion on these two themes. In total, 144 contributions were made by some 60 participants. Additionally, a number of people who did not actively contribute nonetheless followed the discussions with interest. All materials related to the conference can be found at: http://www.hip.watsan.net/home/learning/2006_e_conference.

Measuring Behavioral Outcomes for HWTS E-Conference

HIP hosted its second e-conference on Measuring Behavioral Outcomes for Household Water Treatment and Storage January 22–31, 2007. Prior to the conference, HIP’s Monitoring and Evaluation Specialist Orlando Hernandez wrote a discussion paper, —Measuring Behavioral Outcomes When Promoting Household Water Treatment and Storage,” to facilitate conversation. More than 60 conference participants were asked to comment on two proposed indicators to measure household water treatment and storage practices and on additional indicators to measure behavioral determinants. The ideas generated during the e-conference were used to provide input on indicators to USAID for discussion at international fora such as the International Network to Promote Household Water Treatment and Safe Storage. All conference materials are available at <http://www.hip.watsan.net/page/1957>.

Webinars

HIP held a very successful series of webinars in 2010 to highlight project experience and resources, all presented by HIP team members, on the following topics:

- Using the WASH Training Package for the Prevention of Diarrheal Disease (January 28, 2010)
- Access and Behavioral Outcome Indicators for WASH (March 2, 2010)
- Meeting the WASH Needs of People Living with HIV/AIDS (April 8, 2010)
- Experiences and Lessons Learned in Sanitation Marketing (June 17, 2010)

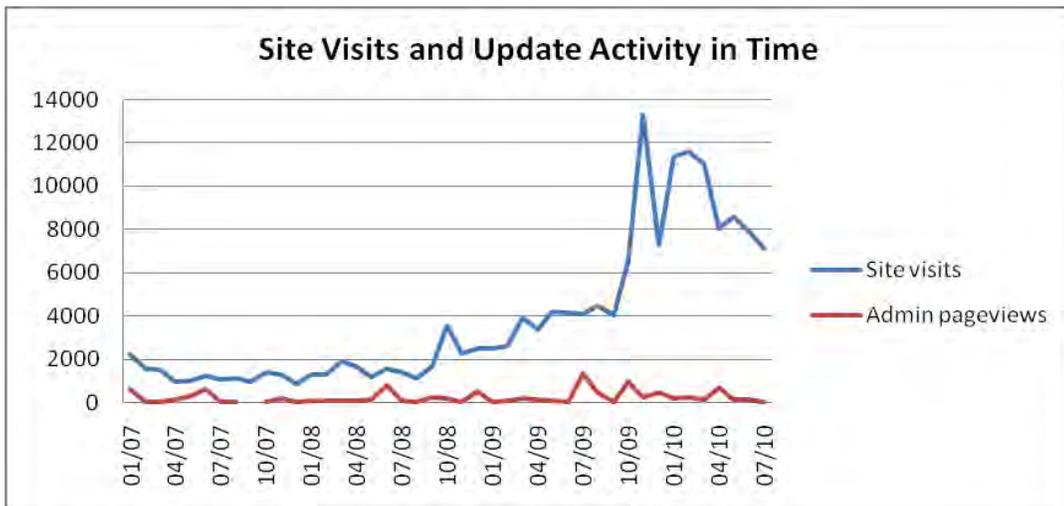
- WASH in Schools (September 16, 2010)

The webinars were well attended with 35-50 participants for most of the sessions, and the final one on WASH in schools attracted 70 participants. After each presentation, a lively discussion with many questions followed.

Participants came from every continent, and countries included Bhutan, Canada, Ecuador, El Salvador, Ethiopia, Ghana, Guatemala, Kenya, India, Indonesia, Ireland, Mali, Malaysia, Mauritania, Nepal, Niger, Nigeria, Senegal, Sudan, Switzerland, Uganda, United Kingdom, and Zimbabwe. Full recordings of all of the webinars are available at: <http://www.hip.watsan.net/page/4105>.

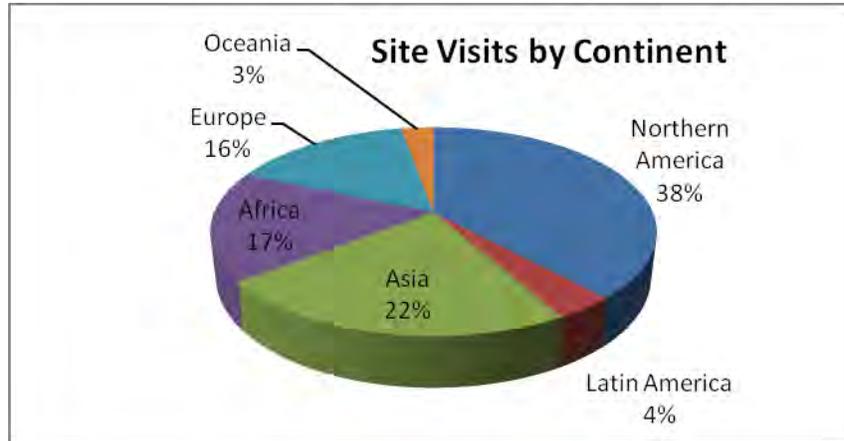
HIP Website

HIP’s website, located at <http://www.hip.watsan.net>, was launched in April 2006. It is hosted by HIP’s partner, IRC International Water and Sanitation Centre, which has agreed to keep the website available after HIP ends for several years to enable the project to continue to share publications and other resources. The number of visits to the site and page views has grown steadily. Both update activity and the number of visits to the site are shown in the graph below. The November 2009 peak was for the —WASH Training Package for the Prevention of Diarrheal Disease.”



Geographic Origin of Website Visitors

Most visitors come from the North (Northern America and Europe), see the graph that follows, but a significant number of visitors also come from the South.



Most Visited Category

The following graph shows that Publications and Resources was the most visited category.



Most Visited Pages

The following table lists the 10 most visited pages from April 2006 through July 2010, with the WASH Training Package being the most visited page.

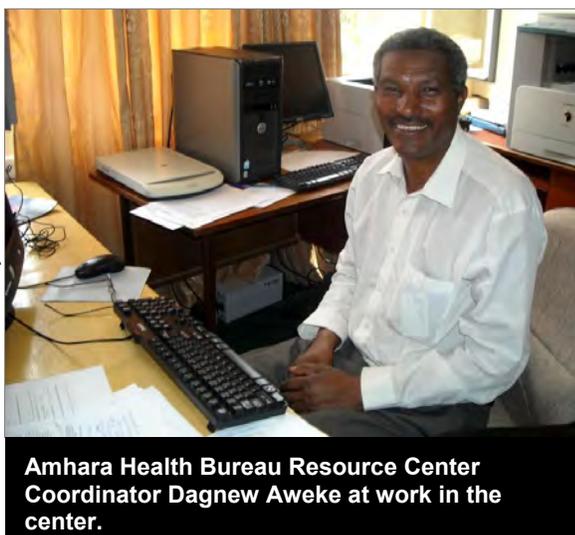
	Page
1	/home
2	/home/resources/publications/key_hip_publications/wash_training_package
3	/home/programs
4	/home/publications_and_resources/publications
5	/home/resources/hygiene_improvement_resources
6	/home/resources/publications/key_hip_publications/access_and_

	behavioral_outcome_indicators_for_water_sanitation_and_hygiene
7	/home/resources/sanitation_update
8	/home/resources/tools
9	/home/publications_and_resources
10	/home/resources/publications/key_hip_publications/wash_training_package/resource_materials

Capacity Building for Country-Level Knowledge Sharing

HIP supported the creation of a WASH Resource Center in the Amhara Regional Health Bureau in Ethiopia to make WASH and other health information more accessible, encourage the use and sharing of information, produce materials including a newsletter, and facilitate linkages with others working to help the region reach its sanitation goals. HIP and partner WSP supported the center in various phases including purchase of equipment and furniture and creation of a wireless network; a planning visit by IRC Knowledge Management Specialist Jaap Pels; a visit by HIP’s KM specialist to train center staff; and technical support to maintain the center’s network. The center has a basic website at: <http://arhbrc.wordpress.com>

Photo Credit: Patricia Mantey, AED



Amhara Health Bureau Resource Center Coordinator Dagnev Aweke at work in the center.

Lessons learned from this experience include:

- A committed, high level champion is essential.
- Start out small and build capacity gradually.
- Dedicated staff for the resource center is essential. ensure that appropriate staff is assigned to the center.

Annexes

Annex 1: Hygiene Improvement Project Publications and Resources

GLOBAL HIP PUBLICATIONS

At-Scale Hygiene and Sanitation Experiences and Lessons Learned in Ethiopia and Madagascar. November 2010. Reviews HIP's overall approach to hygiene and sanitation improvement, the project's two country applications, and lessons for future applications; includes framework and tools for working at scale. <http://www.hip.watsan.net/page/5306>

WASH-Friendly Schools Basic Guide for School Directors, Teachers, Students, Parents and Administrators. August 2010. Adapted from HIP's country-specific experiences to support the creation of WASH-friendly schools, this basic guide outlines 13 steps to make a school WASH-friendly. <http://www.hip.watsan.net/page/5009>

WASH-Friendly Schools Training Guide for Parents, Teachers and Student Leaders. August 2010. Training resource adapted from HIP's country-specific experiences to help teachers, parents, and students work together to carry out a plan for making their school WASH-friendly. <http://www.hip.watsan.net/page/5008>

WASH and HIV/AIDS Resources for Planning, Programming and Assessing. July 2010. Based on HIP's work to develop best practices, innovative tools, and evidenced-based approaches for integrating WASH into HIV/AIDS programming, this set of materials is organized as a one-stop resource for anyone seeking guidance on WASH and HIV/AIDS integration. <http://www.hip.watsan.net/page/4489>

How to Integrate Water, Sanitation, and Hygiene into HIV Programs to Improve Lives. WHO, USAID-HIP. 2010. Guidelines on how to integrate WASH considerations into existing national HIV policies, guidelines, and handbooks and HIV programming. http://www.who.int/water_sanitation_health/publications/9789241548014/en/index.html

Sanitation Marketing for Managers: Guidance for Tools and Program Development. July 2010. Developed through HIP's program in Uganda, this manual provides guidance and tools for designing a sanitation marketing program. It guides professionals in the fields of sanitation and marketing to 1) comprehensively assess the current market for sanitation products and services and 2) use the results of this assessment to design a multi-pronged sanitation marketing strategy. <http://www.hip.watsan.net/page/5007>

Access and Behavioral Outcome Indicators for Water, Sanitation, and Hygiene. February 2010. Prepared to help USAID and other organizations measure progress for hand washing, household water treatment and storage, and sanitation activities and provide guidance to implementers of WASH programs on what indicators to use to measure their programs' achievements. <http://www.hip.watsan.net/page/4148>

Water, Sanitation, and Hygiene Improvement Training Package for the Prevention of Diarrheal Disease. September 2009. Developed to help organizations worldwide add WASH activities to their current programs or to start a diarrhea reduction program. Outlines a workshop to train local outreach workers and support their work in communities to promote improved WASH practices to reduce diarrhea. Consists of three separate parts: 1) a step-by-step "Guide for Training Outreach Workers," 2) an "Outreach Worker's Handbook" for community outreach workers to use during and after training, and 3) a "Collection of Resource Materials" to use as a source for visual aids. <http://www.hip.watsan.net/page/3396>

RESEARCH and INFORMATION BRIEFS

Research Brief: Case Studies in Sanitation Microfinance in Peru. October 2010.

<http://www.hip.watsan.net/page/5313>

A Compendium of Resources: Integrating Water, Sanitation, and Hygiene into Primary Schools and Teacher Training. June 2009. Guidelines for integrating WASH into school life. Skills, training, and links to online resources. <http://www.hip.watsan.net/page/2827>

Hand Washing Reduces Mortality Risk in Newborns. HIP Note to the Field. September 2008. Summary of a recent study in Nepal that examined the relationship between hand washing practices and neonatal deaths.

<http://www.hip.watsan.net/page/2845>

Programming Guidance for Integrating Water, Sanitation, and Hygiene Improvement into HIV/AIDS Programs. May 2008. Activities for hygiene improvement that can be incorporated into HIV/AIDS programming to mitigate the impact of diarrhea on people living with HIV and AIDS. <http://www.hip.watsan.net/page/2458>

Conducting Trials of Improved Practices in Madagascar. December 2007. Describes HIP's use of TIPs methodology in Madagascar to test use of improved hygiene practices. <http://www.hip.watsan.net/page/2472>

Hygiene Improvement and Avian Influenza. May 2007. Discusses challenges and options for hygiene integration into avian influenza programs in poor resource settings. <http://www.hip.watsan.net/page/2480>

Bringing Consumers to the Table. Perceptions and Practice of Household Water Treatment Methods in Nepal. May 2006. <http://www.hip.watsan.net/page/2496>

ETHIOPIA

Integrating Water, Sanitation, and Hygiene into HIV Programs in Ethiopia. 2010. Resources to train caregivers on integrating WASH into HIV/AIDS home-based care.

- **Trainer's Guide** <http://www.hip.watsan.net/page/2489>
- **Participant's Guide** <http://www.hip.watsan.net/page/2489>
- **Counseling Cards** in English and Amharic <http://www.hip.watsan.net/page/4562>

Resource Book for Amhara Region—WASH-Friendly Schools. July 2010. Developed to support schools to become more WASH-friendly to help children become healthier, more attentive learners.

<http://www.hip.watsan.net/page/5337>

Training Manual for Preparing WASH-Friendly Schools: Training Guide for Parents, Teachers and Student Leaders. July 2010. Developed to support schools in the process of becoming more WASH-friendly.

<http://www.hip.watsan.net/page/5338>

Trials of Improved Practice: Determining Feasible Water and Feces Management Small Doable Actions for HIV Programs in Ethiopia. February 2009. Summary of research in Ethiopia for home-based workers to improve diarrhea and water management in HIV-affected households.

<http://www.hip.watsan.net/page/3215>

Job Aids for Health Extension Workers to use with households to negotiate small doable actions for improved hygiene practices. <http://www.hip.watsan.net/page/3524>

Training in Community-Led Total Behavior Change in Hygiene and Sanitation: Facilitator's Guide. January 2009. Comprehensive training to build the capacity of health extension workers and development agents to support total behavior change in hygiene and sanitation. <http://www.hip.watsan.net/page/3213>

Health Extension Worker Handbook: Community-Led Total Behavior Change in Hygiene and Sanitation. January 2009. Serves as the participants' manual and resource book to accompany district level training in community-led total behavior change. <http://www.hip.watsan.net/page/3214>

Amhara Regional Behavior Change Strategy. 2007. Lays the framework and strategy for universal coverage and behavior change in hygiene and sanitation, outlining seven key components to achieve universal change. <http://www.hip.watsan.net/page/5304>

Ethiopia Baseline and Endline Comparisons: Institutional, Household, and Schools Surveys. 2011. Results reflect comparisons of data collected in May 2008 and June 2010 for three different initiative components. <http://www.hip.watsan.net/page/5305>

Monitoring and Evaluation Framework for the Amhara Region "Learning by Doing" Program to Achieve Universal Hygiene and Sanitation. December 2008. Developed to monitor the implementation of this at-scale hygiene and sanitation intervention in Amhara, Ethiopia. <http://www.hip.watsan.net/page/3190>

Baseline Household Survey: Institutional Performance and School Assessment Conducted in 22 Woredas of the Amhara National Regional State. December 2008. Reports on survey to measure the effectiveness of the "Learning by Doing" program; indicators for monitoring and evaluation. <http://www.hip.watsan.net/page/3191>

Woreda Resource Book: Community-Led Total Behavior Change in Hygiene and Sanitation. July 2008. Outlines 12 key steps to bring change in basic hygiene and sanitation. <http://www.hip.watsan.net/page/2876>

Aligning for Action: Sustainable Development through Safe Water, Environmental Sanitation and Hygiene: Whole System in the Room Multi-Stakeholder Meeting. October 2006. Report to support the Government of Ethiopia's National Hygiene and Sanitation Strategy in the Amhara Region. <http://www.hip.watsan.net/page/2495>.

MADAGASCAR

Madagascar Household Outcome Monitoring Survey 2007-2010 Comparisons. 2010. <http://www.hip.watsan.net/page/5330>

Assessment of Hygiene Promotion in Madagascar 2007–2008: Comparisons for Households, Schools, and Health Facilities. June 2009. <http://www.hip.watsan.net/page/3584> (English); <http://www.hip.watsan.net/page/3630> (French)

Baseline Report for Madagascar: 2007 Measurement. December 2008. HIP findings to measure hygiene practices in three target areas—water treatment and storage, hand washing, and feces disposal. <http://www.hip.watsan.net/page/3189>

Guide illustre pour les agents de developpement (Illustrated Guide for Development Professionals). June 2009. Developed with the Malagasy Ministry of Health and Family Planning and the Diorano-WASH Committee. Created for workers to use small doable actions for improved practices in hand washing, safe storage, water treatment, and latrine use. (In French only) <http://www.hip.watsan.net/page/3559>

Mise en place des Centres de Santé de Base Amis de Diorano-WASH (Technical Guide for Creating WASH-Friendly Health Centers). January 2009. Prepared with the Madagascar Ministry of Health and Family Planning. <http://www.hip.watsan.net/page/3225> (French); <http://www.hip.watsan.net/page/3516> (English)

Posters, Counseling Cards, and Negotiation Tools. 2009. Resources developed to support HIP's WASH behavior change activities in Madagascar. <http://www.hip.watsan.net/page/3311>

Ecole Amie de Diorano-WASH, Manuel de Reference. (WASH-Friendly Schools Guide). November 2008. (In French only, and hard copy only)

Levret du secretaire et de la troupe: PAFI. Guide developed by the Scout Federation of Madagascar, Diorano-WASH, and HIP for use by Scout troops in Madagascar to work in their communities to promote, PAFIs (Les Petites Actions Faisables et Importantes), or small actions, for better hygiene, and earn WASH Scout badges. 2009. <http://www.hip.watsan.net/page/5346>

Manuel du chef et des éducateurs: PAFI. Guide developed by the Scout Federation of Madagascar, Diorano-WASH, and HIP for use by Scout troop leaders in Madagascar to help their Scouts work in their communities to promote PAFIs and earn WASH Scout badges. 2009. <http://www.hip.watsan.net/page/5347>

NEPAL

Nepal Country Brief: Promoting Household Water Treatment and Hygiene. June 2009. Highlights the Nepal Hygiene Improvement Project, promoting better hygiene practices in four pilot districts in Nepal. <http://www.hip.watsan.net/page/3515>

Bringing Consumers to the Table: Perceptions and Practice of Household Water Treatment Methods in Nepal. Documents summarizing consumer preference research for household water treatment and storage options conducted by HIP in Nepal.

- **Full report.** May 2006. <http://www.hip.watsan.net/page/2497>
- **Research Brief.** May 2006. <http://www.hip.watsan.net/page/2496>
- **Bringing Consumers to the Table: A Research Tool for Assessing Consumer Perceptions and Practice of Household Water Treatment Methods.** May 2006. <http://www.hip.watsan.net/page/2498>
- **Research Tool Annex** <http://www.hip.watsan.net/page/2499>. May 2006.

Amoeba & Water. 2009. Children's book developed by HIP Nepal partners UNICEF and ENPHO that provides information on the importance of safe drinking water for good health. <http://www.hip.watsan.net/page/3329>

Study on Effectiveness of Point of Use (POU) Drinking Water Treatment Technologies in Schools. 2008. The study conducted for HIP and UNICEF to assess the effectiveness of various POU drinking water treatment technologies at the school level and develop guidelines on selection and installation of appropriate water treatment technologies in Nepal's schools. <http://www.hip.watsan.net/page/5348>

PERU

Guia Comunitaria para el Mejoramiento del Agua y la Higiene Familiar. April 2008. From HIP's work in Peru, this reference manual is intended for outreach workers to use when working with community members to help them implement behavior change related to water treatment/storage/handling, hand washing, and feces disposal in order to reduce diarrhea. (Spanish) <http://www.hip.watsan.net/page/2540>; (English) <http://www.hip.watsan.net/page/5326>

Manual de Capacitacion para el Mejoramiento del Agua y la Higiene Familiar. January 2008. From HIP's work in Peru, this training manual was developed to train local community outreach staff or trainers on how to implement a series of group activities (which take a total of four hours) at the community level to reduce diarrhea, and how to train other people so they can implement the activities. (Spanish) <http://www.hip.watsan.net/page/2592>; (English) <http://www.hip.watsan.net/page/5325>

Related visual training materials and user reminder materials. January 2008. To accompany the two manuals, these training materials (in Spanish) were developed by HIP and MSH for the USAID/Peru Healthy Municipalities and Communities training-of-trainers workshop. <http://www.hip.watsan.net/page/2517>

Field Water Quality Assessment and Design of Comprehensive Systems to Improve Water Quality- Curmana District, Ucayali Region, Peru. Final Report. USAID/Peru. February 2007. Assessment to provide information for the Peru Healthy Municipalities and Communities Project to address water quality management and monitoring issues in its client municipalities and schools. <http://www.hip.watsan.net/page/5316>

Assessment of the Water and Sanitation Program/Peru Alternative Pro-Poor Sanitation Solutions Initiative. A formative assessment of Water and Sanitation Program (WSP)/Peru's Alternative Pro-poor Sanitation Solutions (APSS) in Peru Initiative. The APSS Initiative was to reach 8,000 families with toilets promoted as part of an integrated package (sanitation options, installation, use, and maintenance sanitation services, financial products, and adequate health and hygiene practices) in five localities, targeting a wide range of climates and demographics with the objective of testing multiple approaches and tools. HIP. 2009. <http://www.hip.watsan.net/page/5315>

Research Brief: Case Studies in Microfinance in Peru. Examines two promising project activities in the micro-finance sector under the Creating Sanitation Market Initiative (CSMI), a multi-stakeholder initiative led by the Water and Sanitation Program of the World Bank in Peru. 2010. <http://www.hip.watsan.net/page/5314>

UGANDA

Sanitation Marketing

Resources developed by HIP and partner Plan International/Uganda to help develop and stimulate local markets to provide affordable latrine technologies to consumers in Tororo District, Uganda.

- **Sanitation Marketing for Managers: Guidance for Tools and Program Development.** July 2010. Developed through HIP's program in Uganda, this manual provides guidance and tools for designing a sanitation marketing program. It guides professionals in the fields of sanitation and marketing to 1) comprehensively assess the current market for sanitation products and services and 2) use the results of this assessment to design a multipronged sanitation marketing strategy. <http://www.hip.watsan.net/page/5007>
- **Sanitation Marketing Programme: Mason's Training Manual.** March 2010. <http://www.hip.watsan.net/page/4391>
- **Sanitation Marketing Programme: Catalogue of Affordable Latrine Options.** March 2010. <http://www.hip.watsan.net/page/4392>
- **A Sanitation Marketing Strategy for Tororo District.** March 2010. <http://www.hip.watsan.net/page/5056>
- **In-depth Consumer Assessment Report for Sanitation Marketing Pilot.** May 2009. <http://www.hip.watsan.net/page/4390>
- **In-depth Supply Assessment Report for Sanitation Marketing Pilot.** May 2009. <http://www.hip.watsan.net/page/4389>

Opportunities for Sanitation Marketing in Uganda. October 2007. Recommendations for HIP and the donor community on how to support rural sanitation marketing in Uganda. <http://www.hip.watsan.net/page/3517>

HIV and WASH Integration

Resources developed to support the training of home-based caregivers on integrating improved WASH practices into their client care activities.

Improving Water, Sanitation and Hygiene (WASH) Practices of Ugandan Home-Based Care Providers, their Clients and Caregivers in the Home. September 2009.

- **Participant's Guide** <http://www.hip.watsan.net/page/4042>
- **Trainer's Manual** <http://www.hip.watsan.net/page/4043>
- **Training Handouts** <http://www.hip.watsan.net/page/4025>
- **Counseling Cards and Assessment Tool** in English and five local languages (Acoli, Ateso, Kiswahili, Lugandan, and Runyankole-Rukiga) <http://www.hip.watsan.net/page/4064>

Testing Small Doable Actions to Improve Hygiene Practices in the Care of People Living with HIV/AIDS. HIP and Plan International/Uganda. December 2008. <http://www.hip.watsan.net/page/4396>

Focus Group Discussions and In-depth Interviews to Identify "Small Doable Actions" to Improve Hygiene Practices in the Care of People Living with HIV/AIDS. HIP and Plan International/Uganda. December 2008. <http://www.hip.watsan.net/page/4395>

WEST AFRICA WATER INITIATIVE

USAID Hygiene Improvement Project Support to WAWI: Final Report. 2009. Program highlights, results, and lessons learned from HIP's work with the West Africa Water Initiative. <http://www.hip.watsan.net/page/380>

Annex 2: Hygiene Improvement Project Success Stories

These success stories (with photos) are also available at the HIP websites listed below.

Ethiopia: <http://www.hip.watsan.net/page/3472>

Small Steps to Better Health

When Bontu's family learned that she was HIV positive they no longer wanted her to live with them, so she left and began to live on her own. Now, five years later, this 60-year-old woman is healthy after being on antiretroviral therapy (ART) for more than a year and lives independently, earning income from rooms she rents out. She was able to turn her life around with help from the Alemtena Catholic Church HIV/AIDS Care and Support Project, located in the Oromia region of Ethiopia.

Bontu's home-based care worker, who was trained by the Alemtena Care and Support Project, taught her how to live healthier. —learned good things,” she said. —How to keep clean, how to keep my house clean, use clean eating utensils, and take my ART.”

She also learned how to improve her health by adopting improved water, sanitation, and hygiene (WASH) practices, such as treating and properly storing her drinking water, using a latrine, and washing her hands with soap at critical times such as after using the latrine. With a loan of 2,000 birr (around \$150) from the project, Bontu had a small house built for herself and added some extra rooms to her compound to rent out. With this rental income she was able to pay someone to dig a pit for the latrine in her compound, which includes the washable latrine slab provided by the project.

The Alemtena Care and Support Project participated in research that the USAID Hygiene Improvement Project (HIP) conducted in Ethiopia in 2008 to identify small doable actions that people living with HIV/AIDS (PLWHA) could adopt to improve their overall health. PLWHA are more susceptible to diseases related to poor hygiene so practicing good WASH behaviors is especially important to their health. Some Alemtena project staff participated in the training of trainers for WASH and HIV integration that HIP conducted in 2009, and these trainers have since trained 40 home-based care (HBC) workers. These HBC workers visit clients such as Bontu and follow up on their ART compliance and teach them how to take better care of themselves by improving their WASH practices—storing drinking water using the jerry can provided by the project and treating the water using Wuha Agar (a chlorine-based water treatment solution); using an improved latrine with concrete slabs provided by the project; and washing their hands with soap after using the latrine and at other critical times. Each HBC worker supports six to 12 clients who may be PLWHA or one of the orphans and vulnerable children the project works with. The HBC workers visit their assigned *kebeles* (neighborhoods) each week to hold coffee ceremonies with their clients and others in the community and reinforce the healthy practices they have been taught and provide reminders to patients on ART. The Alemtena Project receives support from CRS through PEPFAR, the President's Emergency Plan for AIDS Relief.

Emebet, who is Bontu's home-based care worker, has been working with Alemtena for over one and a half years. She supports 12 clients whom she visits each week. She travels as far as 70 km to visit some of her clients, two of whom are bedridden. —hold a coffee ceremony in each village I visit,” she said. —eat with them and provide support. If they are sick I urge them to go to the clinic.” Once a month she returns to the Alemtena Church clinic and stocks up on supplies from the basic care package for her clients, including gloves, ART medicine, and Wuha Agar.

Bizunesh and her family, all HIV positive, live nearby Bontu and also receive support from the Alemtena Care and Support Project. They are making good progress toward adopting improved health practices and WASH behaviors they've learned from Emebet, who is also their HBC worker. While her husband and four-year-old son are both taking ART, Bizunesh does not yet need to take medicine and her viral levels are checked regularly. Her household learned how to store water properly in a jerry can and treat it with Wuha Agar, use a nearby communal latrine, and practice hand washing at critical times—after using the toilet and before eating and handling food. —“Before learning the WASH practices we were sick more often,” Bizunesh said, “but now we are almost never sick.”

Integrating WASH Practices

Tesfagoh, Amharic for Dawn of Hope, is a small Ethiopian care and support organization based in Bahir Dar that works with people living with HIV/AIDS (PLWHA) and their families. In January 2009 USAID's Hygiene Improvement Project trained 348 home-based care workers from Tesfagoh and two other local NGOs, OSSA and Mekidem Ethiopia, to integrate WASH practices into their home-based care programs for PLWHA, who are at greater risk of becoming sick from unsanitary conditions. This hands-on practical training focused on treating and safely storing drinking water, hand washing with soap or ash, and safely disposing of feces.

Two months after the completion of training, Tesfagoh workers report that almost 80 percent of their clients have built tippy taps—water-saving devices made from plastic containers for washing hands. In addition, Tesfagoh has adapted its monitoring form to include a place to report on WASH activities. One such weekly reporting form indicates that a home-based care worker discussed personal hygiene during 81 visits with clients and discussed water saving techniques during 73 visits.

Adisnakew, an HIV caregiver who works in the Kebele 14 neighborhood in the northeastern part of Bahir Dar explained, —“I wanted to use what I had learned to help my clients.” In one household, Tagegn Dessie, 30, who is living with HIV/AIDS, became too weak to use the latrine. Adisnakew constructed a strap made of rope to help support her. —“It really helped my legs so I wouldn't collapse when I went to the bathroom,” said Dessie. —“Adisnakew installed a water bottle next to the latrine and attached a piece of soap on a rope in front of the latrine. This made us remember to wash our hands after using the latrine and then my children started to wash their hands after going to the bathroom. Before only my husband and I washed our hands.”

Tesfagoh and its caregivers have embraced the WASH concepts. They have also become inventive. Using a shallow clay pot they found in the market, Tesfagoh caregivers created a potty for bedbound clients. They cover the rugged edges of the clay pot and then either use it as a bed pan or put it under a hole cut out of the bed. Fortunately, many PLWHA are now on antiretroviral therapy and the number of bedbound clients that Tesfagoh caregivers see regularly has declined.

These home-based care workers have internalized the WASH practices they have learned and are proud to share them with their families, neighbors, and clients to improve people's lives.

Health Promoters Foster Change

Since 2006, the USAID Hygiene Improvement Project and the Water and Sanitation Program in Ethiopia have supported the Amhara Regional Health Bureau's efforts to meet the national goal of universal access to sanitation by 2012. This initiative, known as the Learning by Doing program, has seen significant increases in the number of households that use a latrine regularly and practice other improved hygiene behaviors they've learned from the health extension workers who regularly visit their communities. In some communities, latrine usage before the program was around 19 percent, but now 60 percent or more

of households have their own latrine. “The biggest challenge,” said Gojem Abere, head of the District Health Office in South Achefer Woreda, “is to change behavior and motivate people.” It is also important to persistently follow up with communities to assess their progress, he said.

Health extension workers visit their assigned *kebeles* (neighborhoods) each week and work with the local volunteer health providers to teach and reinforce components of the 16 health packages developed by the Amhara Regional Health Extension program. Twelve include hygiene and sanitation components, such as promotion of latrine use, hand washing with soap or ash, and safe storage and treatment of drinking water. Each kebele has 20 to 30 volunteer health promoters who are selected by the community, and they in turn work with as many as 50 to 60 household groups (or *gotts*) to teach or follow up on their progress practicing improved health behaviors through activities such as coffee ceremonies or church groups.

In addition to the construction and use of latrines, more households are storing drinking water in narrow neck containers or jerry cans to keep their water clean, washing their hands at critical times (especially after using a latrine or before eating) with soap or ash, using a tippy tap water saving device, and keeping their animals away from household areas.

Visitors to the Godema Gott in South Achefer will notice that all the households have latrines, but many do not meet all the standards for safety, privacy, and comfort; at least one household latrine appeared not to be used at all because of its dilapidated condition. However, one household stands out in this community—Madame Tabote’s. Her house is well kept—drinking glasses are stored safely to keep them clean, drinking water is properly stored, the latrine has a squat hole cover to keep away flies, ash is used to wash hands, and the animals are kept penned up. She spoke with great pride at the changes she had made in her household as a result of what she learned from the community health worker and her belief these changes are making her family healthier. “The latrine saves us time and gives privacy,” she added.

Tippy Tap Revolution

Peeking through the bushes in the corner of the compound, a water bottle fitted with a straw hangs from a tree next to a latrine. “We use this to wash our hands. When we leave the latrine it reminds us to wash our hands,” said Fantaye Dessie, 36, an HIV-positive resident of the compound. Tippy taps, water saving hand washing devices, were not used in communities in Bahir Dar, Ethiopia, a few months ago. But after training from the USAID Hygiene Improvement Project on water, sanitation, and hygiene, outreach workers from three Ethiopian NGOs in the Amhara Region learned how to make tippy taps and shared this knowledge with their clients—people living with HIV/AIDS (PLWHA).

During the training, participants coined local Amharic terms for the tippy tap. These included *Woder-Yelesh* (extraordinary), *Asnakech* (cool), *Lakech* (excess), and *Kotabi* (water saver). But the most popular term was *Jog-Lemine* (Why use a jug?).

Now tippy taps are becoming more common. One organization said that since the training, 80 percent of their clients have constructed a tippy tap made of a water bottle and a straw. When the top of the bottle is closed, a vacuum prevents the water from pouring out of the straw, but when the top is opened, the water begins to flow. In addition to teaching tippy tap construction, outreach workers for home-based care demonstrate proper hand washing techniques—rubbing hands vigorously with soap or ash and then rinsing the loosened germs and dirt with water from the tap.

Soap is an inexpensive commodity—approximately 23 cents for a small bar—yet it is beyond the reach of the poorest community members. “In our training we learned that we can use ash or sand instead of soap, and I tell my beneficiaries that they can use ash if they don’t have soap,” noted Fasika, a home-based care worker.

Because these trained home-based care and support organizations regularly visit households with HIV-positive members, some families fear that construction of a tippy tap would identify them as HIV-positive. —We have a plan to overcome this fear of stigma,” said Sr. Almaz Abebe, executive director of NGO Tesfagoh (Dawn of Hope). —When we bring the community together, we will show everyone the benefits of a tippy tap and teach them how to make one. We think this will encourage even more people to adopt this practice.”

In Ethiopia, where access to water is limited, a tippy tap allows all family members to practice hand washing at critical times while drawing water from the community tap only once. These critical times for hand washing are after using a latrine or cleaning a child’s bottom, before cooking, and before eating or feeding someone. One resident said that her landlord asked her to use less water because he pays the water bill. —Once I got a tippy tap I told my landlord that I was saving water and he was happy. The tippy tap helps us a lot. It saves water and is really simple to construct.”

Madagascar: <http://www.hip.watsan.net/page/2822>

Ambatokely Remembers WASH Training

In the community of Ambatokely many children used to get sick with diarrhea from drinking dirty water. Because the water in this community is very turbid, it could not be adequately treated using the locally available water treatment product. In 2007 HIP partnered with the manufacturer of Aquasure (an alternative chlorine-based water treatment product that works well in muddy and heavily contaminated water) to provide water purification infrastructure for this community. Aquasure provided a 400-liter water treatment tank and HIP conducted WASH training for the villagers and helped establish a —*Chateau d’eau*” committee to manage the newly installed tank. As part of the pilot, Aquasure agreed to cover the cost of the tank and perform maintenance for free for one year; the villagers agreed to purchase the water treatment tablets and subsequently take over the maintenance costs after one year.

So how has the community fared two and a half years after its HIP intervention? Villagers of the community of 22 households served by the Chateau d’eau noticed an improvement in their health right after the water treatment began and the three key WASH behaviors—safe storage and treatment of drinking water, safe feces disposal, and hand washing with soap, and—became common practice. —We can’t remember anyone being sick in the last two and a half years,” said Virginia, a member of the Chateau d’eau committee.

The committee has since taken over the maintenance of the Chateau d’eau. It found that the 50 Ariary (two and a half cents) it charges the villagers per 12 liter bucket is not sufficient to cover all the costs of running and maintaining the tank. And the committee is reluctant to increase the price of a bucket since the price is already five times more expensive than the water provided by public utilities in town. So committee members are raising funds by holding bake sales and growing extra crops in their fields in the off season to supplement the Chateau d’eau fund. And in doing so the committee has been able to safeguard the community’s access to clean drinking water.

As a result of their successful experience from this water project, the community decided to address other health issues. Recently the latrines of several families in the community became full. Remembering their WASH training, they wanted to build new improved latrines using the SanPlat latrine slabs they learned about. The families approached Aquasure and HIP for funding to partially subsidize the cost of constructing the new latrines; because of their success with the Chateau d’eau, the project was approved. Thus eight families now share two new improved latrines built with SanPlat washable concrete slabs. They also installed water saving —tippy tap” devices made from discarded drinking water bottles to enable

family members to wash their hands after using the latrines. Another practice learned during their WASH training.

Latrine Promotion Expands

Like many people in her neighborhood, Bernadette, who lives with her daughter and granddaughter in Tamatave, Madagascar, had a shallow, unsanitary latrine in her yard that was unpleasant to use. In 2007 Bernadette attended —“World Latrine Day” festivities in Tamatave and stopped by the hygiene promotion display set up by HIP and the local NGO Frères Saint Gabriel (FSG), which sells various latrine models. There she received information about the importance of using a hygienic latrine and the benefits of having a washable latrine slab called a SanPlat. The next month, with the help of loan from FSG, she bought a new slab and paid for the labor for installation of the latrine.

Nearly two years after its installation Bernadette’s toilet has had a positive effect not only on her and her immediate family but on her neighbors as well. There are currently 12 individuals regularly using the facility and a constant influx of visitors. Bernadette said that she is aware of two other families in her immediate neighborhood that have installed their own FSG toilet because of the cleanliness, effectiveness, and popularity of her facility. —“It’s exciting to see that others are wanting to get their own toilet after having seen and maybe even having used my toilet,” says Bernadette.

HIP provided technical training and support to FSG to improve and expand the sale of local hygiene products. Chantal and other hygiene educators from FSG received training from HIP on three key WASH practices— safe storage and treatment of drinking water, safe feces disposal, and hand washing with soap. They now educate the local community about the importance of proper WASH practices and benefits of using a hygienic latrine. Chantal oversaw the installation of Bernadette’s toilet as well as many others in the area. —“Currently, 2,339 toilets in the city of Tamatave have been done through my branch of FSG. The effects of hygiene education are starting to show from the number of toilets being purchased and installed in the area,” she said.

Innovative Hygiene Partnerships

HIP is helping to transform the Commune (local district) of Mahitsy into a cleaner, healthier place. After receiving the support of the mayor of Mahitsy, HIP introduced several new concepts to help the district improve its level of hygiene and sanitation: WASH-friendly schools, WASH-friendly community health centers, and the —“Approche Trois P” (public-private partnership). HIP also held numerous training and orientation workshops for local community health workers about the three main WASH messages: safe storage and treatment of drinking water, safe feces disposal, and hand washing with soap. The secretary-general of the commune, Niaina, said —“HIP taught us things we didn’t know. Now we have the knowledge and means to change and the follow up from HIP to make it happen.”

The centerpiece and most prominently visible aspect of this transformation is the newly renovated *bloc sanitaire*, a public toilet facility situated at the heart of Mahitsy, between the busy market and regional bus station. For many years Mahitsy residents and the numerous visitors to the regional market had no public toilet facilities. With funds from another donor, the commune built its first bloc sanitaire. Unfortunately the facility was poorly built and poorly managed, resulting in an unsanitary facility that was not heavily used and did not generate any revenue for the commune. HIP intervened and proposed a plan to renovate the bloc and improve its management using the public-private partnership approach.

The commune agreed to pay 20 percent of the cost to renovate and expand the bloc sanitaire from four to six toilets, add two showers, and one external water tap. The management of the bloc was opened up to community bids. Out of five bids the most attractive came from a local scouts committee, which already had previous WASH training from HIP. As part of the arrangement, the scouts agreed to pay the

commune 400,000 Ariary (\$200) per month, perform a long term study of usage, and provide WASH training to the inhabitants of all the fokontany (subdivisions) of the commune. Local scouts Santatra and Tsilavina now manage the newly renovated bloc. —This is win-win for us. We are students in management, and managing the bloc is an opportunity to serve the community and to do a management project for our studies.”

The sum of 400,000 Ariary represents a considerable income for the commune. With HIP’s assistance the commune decided to create a special hygiene and sanitation fund with this income. The incoming funds are now earmarked for further hygiene and sanitation projects within the commune. This includes the maintenance of the existing bloc sanitaire and within two years the construction of new facilities to serve the needs of the 11,000 people that frequent the one in Mahitsy.

What do users make of the renovated bloc sanitaire? —It is better to have a toilet [than not to have one],” says one user. Fitiavana, a young girl who studies at a private school in Mahitsy, prefers to pay a fee and use the bloc sanitaire rather than use the latrines at her school. —It is cleaner here,” she said.

Latrine Promotion

HIP promotes three improved WASH practices in Madagascar to reduce deadly childhood diarrhea: use of latrines, treatment of drinking water, and hand washing with soap. After learning about the importance of using latrines at a HIP/WASH training, members of Club Vintsy, a national environmental club in Madagascar, are now spreading the message and changing the lives of people in their village.

Madame Juliette is the coordinator of Club Vintsy in the city of Fianarantsoa and the leader of the village Ambatoharanana, about 40 miles outside the city. Her village had no previous hygiene improvement education and people defecated in open areas. She arranged for Club Vintsy students to promote the hygienic practices they learned from HIP in her community. During the months of May and June, the students made several trips and discussed sanitation with groups of people in Ambatoharanana, emphasizing building and using washable latrines. —We told people a latrine is very important for health and needed for development,” says Menja, a member of Club Vintsy.

The community of Ambatoharanana listened carefully to Club Vintsy and took its message seriously. Working with Madame Juliette, the community hired a technician from the city to come out to the village to build *SanPlats*, washable latrine platforms. The community decided that all families would buy a SanPlat (about US\$9 each) to be installed near their homes. The 32 families used their own money to purchase SanPlats and built new latrines. As a result, they now have a cleaner community.

Members of the Ambatoharanana community said the education they received from Club Vintsy convinced them to build and start using latrines. —We want to be healthy,” says Mr. Jean Raymond, whose family of nine now has a new, cleaner latrine in their yard to use.

Club Vintsy and Madame Juliette hope to continue WASH education in Ambatoharanana and the surrounding villages.

Expanding SanPlat Coverage

In rural Madagascar latrine floors are typically made of wood or earth. The resulting floor is not always easy to keep clean and the latrine opening usually lacks a cover. These two factors make the latrine less than hygienic. In 2003 UNICEF introduced the SanPlat, a reinforced concrete latrine slab, to Madagascar as an affordable, durable, and washable latrine option. In HIP launched a campaign to promote the use of the SanPlat in the four regions where it works.

To ensure the SanPlat would be widely and sustainably available, HIP targeted masons at local cement workshops and commune engineers with SanPlat production training and then provided the trainees with the molds needed to make the SanPlat. HIP also provided a prominent display stand for vendors to showcase the SanPlat model. The SanPlats are sold to the public for 12,000 Ariary (just under \$6), which generates a profit of 20 percent to 50 percent for the producer over the material costs. This margin has made the production and availability of the SanPlat a sustainable endeavor.

Madagascar now has 21 SanPlat producers and 30 points of sale in the capital Antananarivo, and they cover the major routes leaving the capital. In fact SanPlat latrine slabs are sold in four out of the six principal cities of Madagascar with a total 67 points of sale all over the country.

HIP initially carried out a media campaign to introduce the SanPlat. Now after minimal demand creation, sales of SanPlat slabs are estimated to be 200 slabs every month from all the points of sale established with HIP support.

Madam Berthine runs a cement workshop that is situated on one of the main roads leaving the capital toward the north. She is one of several people who participated in HIP's SanPlat production training and started producing and selling SanPlats six months ago. She says, "My workshop is opposite a bus stop and the prominent SanPlat display stand attracts a lot of attention from passengers and passersby." She adds, "The SanPlat model now outsells my original cement latrine model by five to one. It doesn't have a basin like my original model, and it is cheaper and lighter." Her SanPlat customers come from as far as 100 kilometers away.

Madam Berthine understands the importance of good WASH practices. She distributes leaflets about the three key WASH messages—safe storage and treatment of drinking water, hand washing with soap, and safe feces disposal—to her customers. She has taken the initiative to introduce the SanPlat to her own native commune of Ambomanga, and plans to introduce the innovation to the community at an upcoming inaugural ceremony. The new public school to be built in Ambomanga will use SanPlats in its latrines. For Madam Berthine and other HIP-trained masons the production and sale of SanPlats are more than just an economic activity, it is a service they willingly undertake to help people be healthier.

Changing the Rural Landscape

"I don't remember ever being ill [with diarrhea]," says young Nandrianina, a child in the village of Ambohibary. This sentiment was echoed by many other children in the village.

In sharp contrast to this, Mr. Eme, local resident and mason, says that in the past, "We used to take our kids to the hospital every day because they were sick all the time."

What has led to such a change in the fortunes of the children and people of Ambohibary?

Travelling through rural Madagascar it is easy to identify which communities do or do not have latrines. Those that do can be easily identified by the small structures built near the iconic Malagasy homes. Unfortunately, many communities around Madagascar are still marked by the conspicuous absence of latrines. A lack of education and a lack of exposure (people may have never seen a latrine before) are two principle barriers to rural people building and using latrines.

In communities where the HIP has been active—either through participation in the 2008 Rapid Results Initiative (RRI) to build latrines or implementation of Community-Led Total Sanitation, a grassroots approach to sanitation—one can see a significant increase in the adoption of latrines, indicated by the small but quite visible structures popping up adjacent to village homes.

Some communities initially balked at the idea of building latrines for themselves. The *fokontany* (a rural subdistrict) of Ambohibary is one such case. Despite participating in the RRI, the villagers were reluctant to build because they were concerned with cost. HIP organized a special focus group meeting with the participation of the locals to explore the barriers in the community. Dr. Michele Odile, program director for HIP in Madagascar, drew on her experience to challenge the community members saying, —How long will you remain in these dirty conditions? What will you do for the health and future of your children?”

HIP helped win over the support of the fokontany president who became instrumental in organizing the community of Ambohibary to build improved latrines. All of the houses now have one, and the community’s commitment to improved sanitation opened the doors to additional funding from another organization for new clean water infrastructure.

Building the latrines was expensive for the villagers. They sold livestock or did extra work to raise the money needed for the materials. Some further economized on the cost of construction by using local materials such as mud and straw. However, the benefits to the villagers for their initial investment have been more than repaid over time. Now the people of Ambohibary have a clean community and also safe water to drink. As a result, when you ask the children of this village when was the last time they had diarrhea, they can’t remember. —I remember having a headache,” was the most one child could recall.

Four other communities with full latrine coverage thanks to HIP’s intervention were visited for this story, and none of the children interviewed could remember having diarrhea. A reduction in sickness has been the main outcome, but other benefits were cited as well: —Now we can eat the fruits that grow around our homes without fear of getting sick,” says Mr. Daniel of the hamlet of Sahalava.

—We used to have to buy a lot of medicines before [to treat diarrhea] and pay for the hospital. With the money we save we can now buy better food for ourselves,” said Mr. Justin of the village of Andranomiadiloha.

Scouts Spread WASH Messages

Where do you find thousands of talented and experienced community animators to help you spread the WASH message? In Madagascar, you go to the scouts. HIP has formed a partnership with the scouts over the last two years. After receiving WASH training from HIP, scouts have gone on to change their own behavior and educate their families about three key WASH practices: safe storage and treatment of drinking water, safe feces disposal, and hand washing with soap. They have also engaged local communities by helping make their churches WASH-friendly and preparing skits and songs to teach neighbors about WASH practices. The scout leaders in the four regions of HIP intervention have also been trained in WASH practices, and they are in turn training all the scouts in their regions. Below are highlights of some scout WASH efforts.

World Water Day

Madam Claris, a villager with two young children, attended World Water Day ceremonies in March 2010 in the town of Mahitsy, where scouts performed several songs and sketches related to WASH practices. She said that prior to this event she did not have a good understanding of the importance of treating drinking water or how to do it. Her water source is a well and her family used to get diarrhea often from drinking untreated water. When asked what the three key WASH messages are she could recount them thanks to the sketch. —It was the most interesting part of the program,” she said. She also learned how to use tippy taps—a water-saving hand washing device—and how to wash hands with soap. —I will use Sur’Eau [a locally made chlorine-based water purification product] from now on,” Madam Claris affirmed.

Bloc Sanitaire In the town of Mahitsy, the local scout committee helped the government carry out a study on how much revenue a public toilet, or *bloc sanitaire*, which was renovated with HIP support, could generate. Poor or corrupt management of this facility prior to HIP involvement prevented it from generating any income. The scouts now help manage the facility and bring in revenue for the community.

Churches In Antananarivo, scouts promote WASH-friendly churches by manning a booth next to an improved latrine at the church during services, helping explain how to use the newly installed tippy taps, and dispensing treated drinking water. As they do so, they hand out WASH literature for the churchgoers to take home.

Community involvement When the village of Andina suffered a severe epidemic of diarrheal disease that caused the death of two children and numerous livestock, scouts from the nearby town of Ambositra came, and together with the Red Cross, carried out educational activities to promote better WASH practices.

The scouts' level of involvement with WASH promotion is being codified thanks to the integration of a WASH badge into the scout's official list of 30 talent badges. To merit the WASH badge scouts have to undergo WASH training and then demonstrate that they have educated members of their community in the three key WASH practices.

Personal change

The scouts are committed to improving their lives and the lives of others in their communities, and ultimately their country. Their partnership with HIP is a tool that the scouts are using to make this goal achievable.

The WASH-Friendly Influence

HIP is now helping to set up —WASH-friendly” community health centers (CSB) around Madagascar. These health centers will serve as an example of proper hygiene for diarrhea prevention while promoting the three basic WASH practices: hand washing with soap, drinking safe water, and using clean latrines. The goal is for the clients to observe and do these improved practices at the health center and then practice the same habits in their homes and communities.

At the CSB Vatovory in Ambositra, health workers took action after their WASH training with HIP and set up a tippy tap hand washing station right outside their clinic. Tippy taps are made out of used plastic bottles with holes punched in their caps that act as a faucet when a bottle filled with water is hung from a rail or nail with string and then “tipped” over. They are very cheap and easy to use, and they conserve more water than hand washing with tap water, or a cup and bucket.

In the beginning of August, Ambositra resident Madame Marthe brought her 11-month-old daughter to the CSB Vatovory for a vaccination. That day the nurse gave a presentation about WASH practices and demonstrated how to use the tippy taps. Marthe was impressed. She thought it was such a good idea, and when she went home she set up tippy taps in her front yard near the latrine for her family to use. She tied bottles to her plum tree and set out soap in an empty yogurt container. —After using the latrine you must wash your hands well with soap,” she says about the message she learned from WASH-friendly CSB Vatovory.

Marthe sells honey at her home for a living, and buyers come to her house each day. They are sure to see the tippy taps in her yard and ask questions. This is how the WASH influence starts at the health clinic and filters out to the rest of the community.

HIP is also helping the local *fokontany* (community) to set up WASH-friendly schools and WASH-friendly —“*taxi brousse*” stations and markets.

Hygiene and Tourism

In the community of Soatanana located near Ambositra in Madagascar, women are trying to start a small business cooperative with their traditional silk-weaving. Within this past year, these women have discovered how a cleaner village may draw more tourists to where they live and increase their income.

When visitors stay overnight in Soatanana it brings money into the community. They pay for food and lodging, and the women get to display their silk products for sale. Last year the women found that guests were displeased with the overall lack of sanitation in the village. —“They were upset because there was no proper latrine,” says Emilienne, one of the weavers. Fearing that this would discourage tourists from staying in Soatanana, the women’s group asked for help from local NGO Ny Tanintsika with building better latrines.

Ny Tanintsika sent technicians to Soatanana and constructed two new latrines using a SanPlat (a washable platform) and two new shower stalls. The women saw how this made their guests more comfortable and requested additional education on hygiene. —“We want to learn about cleanliness and how to keep our village clean,” stated Voahangy, an observer of the improvements.

HIP became involved and began teaching members of the women’s group as well as other leaders in Soatanana about WASH practices beyond latrine usage: washing hands with soap and drinking clean, treated water. In August 2008 a mobilization was done in Soatanana with the Office of Regional Tourism from Ambositra and HIP, emphasizing the importance of hygiene and its connection to better business. Not only will they sell more silk products, but cases of diarrhea will decrease and the general health of the community will improve if they follow the WASH practices.

With support from HIP the community wrote an action plan and set a goal to build latrines at each household. They intend to follow through with this plan to make Soatanana a cleaner, healthier place for both residents and guests.

Churches Expand Hygiene Uptake

When a political crisis hit in early 2009, the U.S. Government stopped providing direct foreign assistance to the Madagascar government. As a result, HIP shifted its WASH promotion efforts away from government-run institutions such as schools and health clinics. Among the newest targets of its WASH-friendly initiative were churches.

To qualify as WASH-friendly, a church is required to have basic sanitation infrastructure—toilets/latrines, the means for washing hands with soap, and available clean drinking water—and to carry out WASH education for church members and for the surrounding community.

HIP staff members have been spearheading this approach by introducing the WASH-friendly concept to their own respective churches. WASH training is also being offered to various religious entities such as the Dorcas, an association of church-going women, the scouts, and Sunday school teachers. These HIP trainees are then encouraged to introduce WASH-friendly practices to their own churches.

Mr. Sombiniaina is in charge of water and sanitation marketing at HIP. He is also a deacon at his local church. With his help his church has agreed to become WASH-friendly and is now well on its ways to meeting the criteria.

His church has built new improved latrines to replace its old ones. A hand washing station with tippy taps and soap was installed as were two treated drinking water stations. Local scouts established a station near the latrines and tippy taps where they often talk to users of the latrines and remind them to wash their hands with soap. They also distribute WASH literature.

These improvements stand in sharp contrast to the past; the church's old latrines were smelly, and there was only one hand washing tap for the whole church. Mrs. Vohangy, a deaconess and Sunday school teacher at this church, says, —Before people used to touch the tap to wash their hands and it was dirty; the tippy taps are better because you don't touch them and they are clean. Also the new latrines are ventilated so they are dry and they don't smell.”

Mr. Haja, pastor in training at the church, notes a change in people's behavior. —For to this people didn't have the habit of washing their hands after going to the toilet. Now everyone washes their hands,” he says with visible relief.

In March 2010 Mr. Sombiniaina's church hosted a regional meeting for over 1,000 representatives of 63 churches. The visitors experienced firsthand the hygiene improvements at the church and asked for information on starting a similar program at their own churches.

Mr. Jose, a regional coordinator for HIP, says, —No one has ever involved churches in this manner in Madagascar. This is a first.” Religion plays a great role in the social fabric of life in Madagascar, and as the approach of integrating WASH messages into religious institutions continues to evolve and mature it has the potential to play a considerable role in helping Madagascar achieve its WASH objectives.

The WASH-Friendly School

Students and teachers at the —WASH-friendly” school located in Isorana south-central Madagascar are eager to show visitors the changes they've made at their school since learning about the importance of good WASH practices from HIP.

New hand washing stations with tippy taps and soap are set up around the school yard and used regularly. Students have been taught the importance of washing their hands at appropriate times and have taken to this practice enthusiastically. —The students really like cleanliness,” remarks Madame Georgine, the school director.

At the beginning of each week, teachers review with all the students the three practices that make a school WASH-friendly: Using a washable latrine—the school has one; drinking water that has been purified—the school now uses Sur'Eau (chlorine) to treat water the students drink; and washing hands properly with soap. The students recite these three principles to visitors, while their school reflects how they are put into practice.

—Before we had WASH instruction, students were often sick with diarrhea,” comments Madame Brigitte, a teacher at Isorana. —Now the students aren't sick and can study regularly.” Other teachers agree that absences from school have decreased since the students started washing hands with soap and drinking clean water.

HIP's —WASH-friendly” goal is for students to practice the same sanitation they learn at school in their homes, helping to change the behavior of their families. HIP and its partners have set up WASH-friendly schools in four regions of Madagascar and are seeing positive results with many of these schools. Some schools report that students will not drink water at home unless it has been boiled, and some families have started treating water using SODIS, a new solar disinfectant method taught by HIP. It is these changes initiated by WASH-friendly schools that will bring better health to their communities.

Nepal: <http://www.hip.watsan.net/page/3479>

Hygiene Trickles Down

Nestled in the hills above the beautiful Dang Valley lies Ghoddhaura, a remote village in western Nepal; its nearest neighbor, Ghorahi Municipality, is a 5 kilometer hike away.

It took years of lobbying before villagers succeeded in opening a primary school for their children. Shree Primary educates 101 students of mixed ethnic heritage, including the Dalit ethnic group, and its stone and woodwork building is in desperate need of renovation. Because of the small number of students enrolled, the government supports the school only up to grade four. If students want to continue their education, they have to walk downhill for an hour and a half and cross a river, which floods annually, to attend higher grades at another school, a significant burden for students at such an age. Similarly, all villagers who need to supplement their agricultural subsistence must walk for at least an hour and a half for food and other supplies.

Community Hygiene and Environment Improvement

Despite these challenges, the community convinced UNICEF to build toilets at the school for students and teachers. Teachers, villagers, and students carried the sacks of sand, cement, and bricks to the school from the base of the hill to ensure the toilet construction succeeded. Students and caretakers oversee their maintenance. Learning about this outcome, the Nepal Hygiene Improvement Project (NHIP) selected this school to participate in its school point-of-use pilot study conducted in early 2008. NHIP is a collaborative effort between UNICEF and the government of Nepal to improve hygiene practices, particularly water treatment and hand washing, with USAID's Hygiene Improvement Project providing targeted technical assistance.

An uphill spring provides a regular water supply to the school through a tap located in a designated drinking water room. To address the issue of bacterial contamination, NHIP installed three clay colloidal silver (CS) filters at the school as part of the study. The students and teachers received an orientation on use and maintenance of the filters along with basic hygiene and sanitation training on such topics as hand washing with soap, use of toilets, and other hygienic behaviors that they need to practice at school and their homes.

A month after installation, the NHIP team checked in on the school to assess the efficiency of the filter and its maintenance; the findings were positive. The team returned again after six months to see if the filter was being properly and consistently used and to observe if the safe water and hand washing messages had trickled down to the village level from the schools. The filters were intact and being used regularly. At the community level, the research team observed households using technologies like solar disinfection and boiling to treat water.

—“We have been very lucky to get support from UNICEF, Water Supply and Sanitation Sub-Divisional Office in Dang, and the Nepal Hygiene Improvement Project that has guided us to a healthy life,” said the Chairperson of the School Management Committee Baburam Mahara. These days the village does not have any waterborne disease such as diarrhea or cholera that used to occur on a regular basis. Chet Bahadur Nagarkatti, a member of the School Management Committee said, —“If a household has a member suffering from such diseases...it is the obvious reason of not following basic hygiene practices.”

Mr. Nagarkatti and members of the Village Committee have spearheaded a separate environmental initiative to benefit households—technical assistance to improve stoves. Thus a movement to have safe

drinking water, a toilet, and an improved stove has now become a must for every household in the village. —A household will be socially rejected if it does not have all three facilities,” Mr. Nagarkatti said.

Households use available resources to build toilets, receive technical support from two trained village technicians to construct improved stoves, and practice either SODIS or boiling to treat water. The school’s child club Chairperson Puja Thapa, a grade three teacher, said that the club —has been very active in informing and educating members of the households about the safe drinking water and hand washing practices in the tap stands from where villagers get their water.” According to Tel Bahadur, the Water Supply and Sanitation Sub-Divisional engineer and technician in charge, —Hygiene defines an individual’s personality that helps him to be a respectable and responsible citizen of the society.”

The Village Committee chairperson and the school principal are determined to mobilize the entire village to become open defecation free with a toilet in every household together with safe drinking water facilities and improved stoves. Their determination to achieve this goal in a relatively short time puts them in healthy competition with other villages attempting to make these improvements.

Bringing Safe Water to Schools

When it comes to waterborne disease, children are among the most vulnerable population; in Nepal diarrheal disease accounted for 2,200 deaths in children under the age of five in 2001. To improve water quality in Nepal and spread safe water treatment knowledge and practices, NHIP was launched in 2006, a public-private sector initiative between the government of Nepal’s Department of Water Supply and Sewerage and UNICEF. The USAID Hygiene Improvement Project has provided focused technical assistance for this activity throughout its implementation. In addition to targeting households and communities in four pilot districts with point-of-use (POU) water treatment and hand washing messages, NHIP recognized the need to involve children in its safe water and hygiene interventions.

Schools were identified as an ideal entry point because students have tremendous potential to be effective change agents (an estimated five family and community members per student could be reached with hand washing and POU messages). NHIP recognized that providing hygiene information to students and teachers was not enough to change complex behaviors and reduce waterborne illness. It was crucial for students to practice safe water treatment and drink clean water on daily basis at home and at school.

POU in Schools

Addressing safe water options at schools was a bigger challenge than at the household level. No safe water products were available on the market that could handle the high volume water demand of an average school with 300 students, particularly in light of operation and maintenance challenges. NHIP conducted a pilot study to design and identify high volume water treatment products that could address the schools’ needs. It modified and designed several of the existing water treatment filters and finally developed a colloidal silver (CS) filter into a high volume device (15–18 liters/hour filtration capacity) that was suitable for central or decentralized (classroom) safe water provision. The project also explored other technologies such as chlorination, solar disinfection (SODIS), and the issue of regular colloidal silver filters, so that schools would have other options that addressed their particular water quality and management needs.

At the conclusion of the study, guidelines for school POU promotion were developed and subsequently implemented in 200 schools in Nepal. To determine what type of water treatment option to install in each school, technicians assessed the school environment, the quality of its water system, and its management capabilities and consulted with the school management committee. The school was expected to contribute to the treatment system (in cash or in kind, normally on the accessories such as stands/platforms, mugs, buckets, etc.). Either the members of the school management committee, teachers, or child clubs were solely or jointly responsible for day-to-day operation and maintenance.

Results

Arunodaya Primary School in Subhang Village constructed a separate room for its filters. The school has one large CS filter (100 liter capacity), 10 small CS filters, and 50 SODIS bottles for water treatment. The principal of this school says, “This is the first organization that came to our Dalit [ethnic minority] community and offered such a wonderful solution to our village school. We were compelled to boil the water because the quality of village water was very bad, but now we can drink cool and refreshing water from these filters.”

Suminima Primary School in Phidim has one large CS filter and two small CS filters. The school constructed a concrete platform with wooden doors that lock for safety purposes. The young principal, Indra Kala Rai, says, “Because of this cold and cloudy weather throughout the year, [the village] could not do SODIS, however, after getting knowledge about boiling and filtration, the villagers have now started either boiling or filtering water. In school, the school children, especially the child clubs, take care of the filters and when needed ask for help from teachers or caretakers.”

Jorkulo Primary School of Chokmagu Village has made a separate rack for SODIS bottles aside from investing in making a separate safe water room and platform for the large CS filter. Students use their classroom roof top for SODIS; once the water is treated they store it on the rack they have made for use the next day.

The health post in charge of Kurumba Village, Manoj Shah, attributes a 20 percent to 30 percent decline in cases of diarrhea and waterborne disease to the safe water and hygiene promotion in the village and schools. Similarly, Manager of the Agriculture Cooperative of the village Mandhwaj Lawati says, “With people having less fuel wood for household purposes including boiling of water, other options for safe water such as colloidal silver filters are in demand, which could help people get safe water every day and also help reduce the use of fuel wood.”

The principal of Sahid Dasahrad Primary School says the school has strategically placed its filter outside the classroom so that villagers and visitors to the school can see how it works. The school also provided a certificate of appreciation to the technicians who installed the filter and gave its commitment to relay safe water and sanitation messages and practices all over the village.

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