

Water, Sanitation and Hygiene and Neglected Tropical Diseases

An Integrated WASH-NTD Program Model

Background

More than 1 billion people worldwide suffer from one or more painful, debilitating tropical diseases that disproportionately impact poor and rural populations, cause severe sickness and disability, compromise mental and physical development, contribute to childhood malnutrition, reduce school enrollment, and hinder economic productivity. Some of these diseases can be controlled or eliminated through mass drug administration, although the reinfection of these diseases will remain a problem if behaviors and the environment remain unchanged.

Soil-transmitted helminthes infections (STH) are among the most common infections worldwide and affect the poorest and most deprived communities. According to WHO, more than 1.5 billion people or 24 percent of the world's population are infected with STH. The three most prevalent STH species include: roundworm (ascariasis), whipworm (trichuriasis), and hookworm. Symptoms include anemia, chronic fatigue, growth stunting; it is these that affect school attendance and future wage earnings.

Schistosomiasis is the second largest cause of parasite-related morbidity and mortality worldwide after soil-transmitted helminths. The economic and health effects of the disease are considerable. Primary symptoms include abdominal pain, diarrhea, swelling of the liver, fibrosis of the bladder, and vaginal bleeding. Secondary symptoms can lead to chronic disease and include anemia, inflammation, growth stunting, malnutrition, and overall slowed cognitive development.

Trachoma is the leading cause of blindness and visual impairment worldwide and contributes globally to annual productivity losses of between US\$3 and \$6 billion. Worldwide 325 million people currently live at risk for trachoma. More than 21 million have active trachoma; 7.2 million need surgery for trichiasis and 1.2 million have become irreversibly blind.

Soil transmitted helminths (STH), schistosomiasis, and trachoma are all clearly linked to inadequate sanitation, contaminated food and water, and poor hygiene, providing an opportunity for water, sanitation, and hygiene (WASH) related approaches to help change behavior and the environment. The literature acknowledges the potential importance of WASH, added to drug-based treatments, to ensure that these WASH-related NTDs are prevented and sustainably eliminated. The 2013 Second WHO Report on NTDs (*Sustaining the drive to overcome the global impact of NTDs*), describes five public health strategies that form the core to overcoming NTDs: Strategy 4 is safe drinking water, basic sanitation and hygiene services, and education. It is unlikely that trachoma can be eliminated without face washing and improved environmental hygiene and the cycle of STH treatment and reinfection will likely persist until sanitation and hygiene practices and conditions are improved.

In 2013 USAID's NTD program engaged WASHplus as a partner in a phased assignment to identify and present WASH interventions to help eliminate and/or control STH, shistosomiasis, and trachoma. WASHplus conducted a desk review, assessed the situation in 2 countries and chose Burkina Faso as a country in which to develop an integrated pilot program on WASH-NTDs that could serve as a model for the country as a whole and wider global community.

The timing has proven challenging. Implementing a comprehensive program in one year is difficult especially as preparing the terrain—engaging government and relevant stakeholders—takes time and effort before an intervention can be introduced. While this toolkit will not be able to share results of this project, we offer the tools and learning that the project has achieved to date.

Burkina Faso Pilot Project Description

As noted above, the goal of this project was to design and implement a model integrated WASH-NTD program that can be scaled up in Burkina Faso by other implementing organizations and be adapted and replicated in other countries. The objectives in Burkina Faso were as follows:

1. Promote coordination within government among sectors related to WASH-NTD integration.
2. Develop a comprehensive implementation activity in several villages in one district.
3. Share experience and lessons learned with other partners who may be able to advance or further develop this activity
4. Provide a toolkit for Burkina Faso and global partners.

Government Coordination

WASHplus initially considered a coordination mechanism at the national level specifically for WASH and NTDs, but was dissuaded from doing so by the national NTD coordination unit. They suggested integrating at the district/provincial level and bringing that experience to the national level at the end of the pilot period. At the national level, WASHplus participated in an existing working group on WASH in Emergencies that also had a WASH/nutrition component.

Thus, WASHplus introduced the project at the national level and the provincial level, but worked most closely with three entities at the district level: Ministry of Health, Ministry of Education and Ministry of Agriculture, Hydraulics, Sanitation and Food Security (which recently split into two: Ministry of agriculture, food security and hydraulics and Ministry of water and sanitation). This was a good place to start because all were concerned with village activities which are all interconnected. Thus gaining the support of these ministries personnel was not difficult. This coordination also appealed to the national NTD unit which understood that showing effective coordination at the local level may motivate more coordination at the national level.

WASHplus kept government actors involved as the project progressed. The coordinator met with members of all three ministries each time he visited the region to update them on progress. They participated in the village selection and supported trainings. WASHplus organized a validation workshop in Fada for district, provincial and national government stakeholders to share results

from the baseline activity that was conducted and to provide feedback on and validate the tools being adapted.

Baseline Survey

To develop a baseline survey, WASHplus had to develop WASH-NTD indicators. This had never been done previously and as part of this toolkit, the project offers these indicators to the community to use and adapt in the future.

WASHplus conducted a baseline survey to gather information about the knowledge and practices of the target population and a similar population in the neighboring district. While we recognize that this pilot project was not able to conduct an endline or measure any behavioral changes, the information collected provided a snapshot of the district that can be used by others. Indeed, the project has advocated for other groups to conduct an end line survey. Further, the baseline questionnaire has a comprehensive set of questions that can be used or adapted by others interested in WASH-NTD integration.

Comprehensive Village Activity

The project hired a local organization to assist in developing and implementing the comprehensive activity. The activity consisted of the following elements.

1. Orienting key stakeholders in WASH-NTDs. These stakeholders included teachers, nurses from the community health centers, community health workers and latrine user groups (a designated village group that includes masons who are responsible for constructing latrines).
2. Training 90 villagers in WASH activities and linking them to NTDs. Animators went into the villages and stayed for a week within the village. Working with village/religious leaders, women's groups, and others, they identified 90 motivated villagers at least half, but preferably more of whom were women. Using counseling cards and other participatory methods, the animators prepared a series of activities and lessons on different topics: drinking water, sanitation, proper hygiene, NTDs and finished the week by forming a hygiene club that is presented to the village. This group consists of students, a community health worker, health worker, a member of the latrine user group and a teacher. The hygiene club's role will be to organize activities within the village to promote hygiene and to monitor progress over time.
3. Implementing a CLTS program using trained CLTS igniters. The villages were triggered and followed up by the hygiene clubs as well as by the animators to follow progress toward becoming open defecation free.

Radio Campaign

WASHplus had neither the time nor budget to develop a comprehensive radio campaign. However, the project discovered that a partner organization had developed a radio campaign that included limited number of messages about hygiene. Therefore, WASHplus added four messages

to this campaign. Two messages were focused on washing hands and two messages were focused on using a latrine for urination and defecation. These messages were broadcast in the target area and were given to local animators to use with radio listening groups in various villages.

Ideally, with additional time and resources, a comprehensive radio campaign would have also developed messages about face washing, wearing shoes, treating and storing drinking water and staying out of water sources that could be contaminated by schistosomiasis.