

# WATER, SANITATION AND HYGIENE TO COMBAT NEGLECTED TROPICAL DISEASES

## INITIAL LESSONS FROM PROJECT IMPLEMENTATION

Access to water, sanitation and hygiene is fundamental for health. It plays a critical role the prevention and management of diseases including neglected tropical diseases which affect over 1 billion people among the poorest communities. WASH is one of five public health interventions to control NTDs. While NTD control efforts have achieved considerable success through mass drug administration campaigns, for many diseases, WASH remains essential to limit or break the transmission cycle.



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WHO released a Global Strategy<sup>1</sup> calling for closer coordination of WASH and NTD programmes to improve the lives of populations affected by NTDs. This may be done through joint planning, delivery and evaluation of programmes, strengthening the evidence, and making better use of endemicity data to target WASH services to the most vulnerable, underserved populations.

Examples of successful intersectoral collaboration exist. The guinea worm eradication campaign which involved implementation of a package of medical, water and education interventions<sup>2</sup> is one of the most cited examples. There are also many success stories with trachoma's SAFE strategy. Last year, Morocco received validation of elimination of trachoma as a public health problem, which resulted from comprehensive implementation of all four components of the SAFE strategy<sup>3</sup>.

Many WASH and NTD actors have started to work together on the planning and implementation of their projects and have documented their experiences and lessons learnt. This paper draws on examples from eighteen countries to summarize emerging successes and challenges.

## Overview

Country examples were solicited from implementers using a template circulated through WHO and the NTD NGDO networks. Case studies were primarily submitted from NGOs, but also from multilateral agencies and government. On the ground, collaboration meant a variety of activities including targeting provision of WASH services to NTD endemic areas, including WASH in training curricula of NTD staff and vice versa, promoting safer WASH practices during mass drug administration campaigns, or including NTD specific messages in household or school-based WASH activities. Some implementers reported positive outcomes of their programmes including reduced disease prevalence, cost-savings, increased coverage of mass drug administration, improved disease surveillance and health promotion, increased coverage of WASH services and safer WASH behaviours.



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## What factors contributed to success?

- **Coordination mechanisms** between institutions and across sectors facilitated sharing and understanding of information and improved planning and delivery of joint activities. These were most effective when roles and responsibilities were clearly defined. In some cases, a dedicated committee or task team was established at national and local level or individuals were assigned to coordinate specific activities between implementing entities. In other cases, existing sector coordination platforms were used as an opportunity to review WASH and disease data and identify priorities for action. Coordination mechanisms created a sense of shared purpose by acknowledging the equal contribution of all partners and were reported to be valuable whether established at national or subnational levels.
- **Cross-cutting programme targets and success indicators** enabled collaboration. In some countries, it involved establishing a harmonized monitoring and evaluation framework such as developing a joint logical framework or conducting joint data collection. It was important to engage all stakeholders in the process through discussions in national and local forums and meetings in order to foster joint ownership.
- **Documented benefits created incentives for continued collaboration.** Initiatives that documented benefits in terms of cost-savings and achievement of project targets as a result of greater collaboration were able to attract new funding.
- **Good leadership at the implementation level** was often cited as critical element of successful collaboration. In programmes where capacity and leadership constraints were identified at an early stage, increased engagement of external support and greater community involvement helped address the issues by taking rapid corrective actions.

## What are the common challenges faced?

- **Conflicting or mismatched priorities** between different sectors were commonly cited as one of the main challenges. WASH programmes rely on coverage while NTD programmes use disease prevalence to decide on intervention areas which can be challenging to reconcile for joint prioritization. For example, NTDs often affect poor and marginalized areas where WASH services are often not prioritized precisely because those areas are harder to reach. In other cases, like in Lao PDR, schistosomiasis-endemic villages are not the poorest areas due to their location on the Mekong river and their income from tourism. In this context, WASH implementers have prioritized poorer areas with the lower water and sanitation coverages, and did not feel justified to shift services to schistosomiasis-endemic villages. There was often little flexibility to shift WASH services to NTD endemic areas when funding was tied to a specific project area. Even simple barriers such as the use of different professional language or lack of awareness of areas of interventions between sectors, can undermine collaboration.
- **Coordination can place additional burden on programme staff.** Coordination required relevant staff from different government departments and external agencies to be available, for work with the counterpart sector, but given existing workloads, dedicating time to additional meetings and workshops proved challenging. Overcoming such challenges required very strong individual and institutional commitment.
- **Lack of evidence on effective delivery options can hinder implementation of innovative approaches.** This is partly caused by lack of rigorous and systematic documentation and evaluation of operational aspects of programme delivery and challenges in measuring the potential added value of collaborative efforts.
- **Capacity constraints** were reported to undermine effective implementation. These included insufficient staff, staff answering to multiple grants and programmes, lack of adequate training on technical aspects, and complex bureaucracy resulting in time constraints and delayed implementation.
- **Short project timeframe** due to short term funding cycles. Pilot projects were implemented over a timeframe too short to provide sufficient information and experience to inform design and implementation of large scale, sustained programmes. Without guaranteed continued funding, momentum generated by a project did not translate into lasting changes to systems and institutions.

## Key lessons

- ➔ Invest in **building capacity and developing leadership** at the implementation level.
- ➔ **Don't 'integrate' everything.** Identify coordination and implementation mechanisms that suit the context in which the programme is delivered. For example, joint health promotion campaigns and monitoring & evaluation surveys benefit from an integrated approach (with a single delivery mechanism addressing multiple needs), while the targeting of WASH projects to high NTD burden areas requires coordinated, but separate implementation.
- ➔ **Involve all key stakeholders from the outset** at all administrative levels, including the community and civil society. A joint situational analysis followed by a stakeholder process for review and planning is a useful starting point for sustained collaboration and shared ownership of the programme.
- ➔ **Develop an effective coordination structure** with clear roles and responsibilities, and review regularly to ensure it is delivering the intended results.
- ➔ **Invest in documentation, evidence and experience sharing.** Document benefits and challenges of the approach and share lessons learnt.
- ➔ **Make funding available** to bring stakeholders to the table; this does not have to be substantial, but is important to make it clear that collaboration can bring benefits and that it is being sufficiently prioritized.
- ➔ **Don't give up easily** if things don't work from the start – keep persisting despite challenges.

### Lao PDR and Cambodia CL-SWASH initiative

The Mekong River is the main source of water and income from farming and fishing. Schistosomiasis is endemic in approximately 300 villages across Lao People's Democratic Republic and Cambodia, a stretch of about 250 kilometres along the Mekong River. Soil-transmitted infections are also highly prevalent in those communities as well as is anaemia and stunting.

Mass drug administration activities have been conducted for many years in those areas and as a result, Cambodia and the Lao People's Democratic Republic are moving closer to elimination of schistosomiasis as a public health problem. However, there have been cases of resurgence in the past, highlighting the importance of continued prevention. While MDA campaigns over the past ten years have helped to significantly reduce prevalence, communities continue facing a number of challenges including open defecation and poor hygiene conditions which makes interruption of transmission difficult. In a drive to accelerate elimination of schistosomiasis and other NTDs and improve nutritional status of the population along the Mekong River, a community-led integrated approach to NTDs, WASH and nutrition (CL-SWASH) was launched. This initiative aimed to build on national water, sanitation and hygiene efforts by developing water safety plans in schistosomiasis-endemic communities in both countries.



The approach was initially piloted in communities of the Champasak province in Lao PDR. At community level, the approach consisted of setting up a water safety plan team, composed of selected volunteer members, including a representative of the local Women's Union. The team used the village fund to promote, oversee and monitor construction of improved sanitation facilities, conduct inspections, assess risks, and support facility maintenance and repairs. This pilot led to an increased coverage in improved sanitation facilities and safer water handling practices in the community.

Based on this initial success, national CL-SWASH teams in both countries launched national task forces including representatives from NTD, WASH, animal health, nutrition, education and research. Joint actions plans were developed and are being put into action including through the development of a training curriculum for facilitators to replicate the approach at larger scale.

## The CARE Integrated WASH and NTDs Programme in Ethiopia

Ethiopia is facing a significant burden of NTDs. Eight diseases have been identified as priority NTDs for control, elimination or eradication. This includes trachoma; soil-transmitted helminth infections and schistosomiasis, which are all closely linked to poor WASH conditions. CARE Ethiopia has been supporting the Federal Ministry of Health in its efforts to control NTDs and initiated a project in the Amhara region to test WASH implementation models for NTD prevention in Ethiopia.

The project aimed to 1) address known barriers to WASH-NTD integration 2) test models for delivery of joint-activities and assess their feasibility, uptake and impact, and 3) better understand the cost of integrating WASH and NTD program elements to inform practitioners. The programme included several components: strengthening capacity of local governments in the planning and delivery of joint activities including training of health extension workers and health development armies, facilitating access to water and sanitation services in schools and households, and encouraging WASH behavior change alongside mass drug administration.

These efforts led to significant uptake of WASH services beyond original targets and resulted in safer WASH practices. Capacity building efforts led to the development of action plans outlining local government responsibilities for WASH and NTD control at woreda and zone level. Initial targets for government staff and community members receiving training and supportive supervision were exceeded. Initial analysis suggested that adding NTD prevention components to an existing WASH platform was minimal, resulting in a 10% increase in total budget.

The project included rigorous monitoring and evaluation components with detailed documentation and analysis of programme delivery. Findings have been used to inform the design and implementation of similar efforts in the country. The project demonstrated that collaboration is possible and can have a positive impact on the capacity of institutions and workforce to deliver effective programmes in order to have a long lasting impact on the health of communities.

In recent years, the government has given more attention to the prevention and control of Neglected Tropical Diseases and has developed a Master Plan to address the challenge and the health burden related to NTDs. Use of clean water and food, improvement of personal hygiene and sanitation is one of the key and most sustainable strategies to control and prevent the NTDs.

*Melkamu Beyene, Amhara Region Bureau of Health*

## REFERENCES

- <sup>1</sup> WHO (2015) Water sanitation and hygiene to accelerate and sustain progress on neglected tropical diseases. World Health Organization, Geneva, Switzerland. [http://www.who.int/water\\_sanitation\\_health/publications/wash-and-ntd-strategy/en/](http://www.who.int/water_sanitation_health/publications/wash-and-ntd-strategy/en/)
- <sup>2</sup> Cairncross S., Muller R., Zagaria N. (2002) Dracunculiasis (Guinea Worm Disease) and the Eradication Initiative. *Clinical Microbiology Reviews* 12, 22-46.
- <sup>3</sup> Hammou J, El Ajaroumi H, Hasbi H, Nakhlaoui A, Hmadna A, El Maaroufi A. (2017) In Morocco, the elimination of trachoma as a public health problem becomes a reality. *Lancet Global Health*. 5(3):e250-e251.

## Summary of case studies

Country	Description	Programme aim	Outcome
<b>Angola</b>	School-based initiative on hygiene for NTD control	To increase handwashing in schools and integrate WASH education into national education policy	Increased handwashing by children, improved water management
<b>Bangladesh</b>	School-based WASH improvement and health promotion programme	Improved school environment and health behaviours	WASH infrastructure improvements in over 300 schools and around 250 preschools
<b>Burkina Faso</b>	Pilot project: capacity building, behaviour change promotion and community-led total sanitation	To test a model WASH-NTD program	Set of tools for enhancing WASH and NTDs collaboration
<b>Ethiopia<sup>a</sup></b>	Integrated programme: WASH measures for NTD control and capacity building	Investigate barriers and successes in WASH NTD collaboration; establish collaboration models	Integration of NTD prevention into WASH activities; Woreda prevention action plans;
<b>Ethiopia</b>	Operational research comparing schools receiving integrated WASH, feeding and deworming package with those receiving feeding/deworming only	Determine feasibility, costs and acceptability of an integrated school health programme	Decreased parasite intensity; improved nutritional indicators; improved knowledge, attitudes and practices; cost-savings; uptake by Ministry of Education; sustained clean latrines and hand washing stations
<b>Ethiopia</b>	Health and WASH promotion and infrastructure in schools and communities	Improved control of soil-transmitted helminths (STH) and schistosomiasis	Sustained control of STH and schistosomiasis (decreased prevalence from >40% to <2% and from ~20% to <2% respectively)
<b>Honduras</b>	School-based health promotion	Improve availability of school health services, school environment, knowledge, attitudes and interest for health service uptake and protective behaviors, policy environment and community support	WASH improvements in targets schools
<b>Laos PDR and Cambodia</b>	Implementation of model water safety plan Community-led integrated approach (NTD-WASH-Nutrition) efforts	Accelerate elimination of schistosomiasis and other NTDs; improve nutritional status of the population	Not yet evaluated
<b>Latin America and the Caribbean: Brazil, Guyana, Haiti, Mexico<sup>b</sup></b>	Regional initiative improving coherence across NTD programmes and linking with public health programmes; cross sector action on risk factors	Control or eliminate NTDs through integrated programmes addressing multiple diseases through health, water, sanitation, education and other sectors	Improved MDA coverage
<b>Malawi</b>	Implementation of facial cleanliness and environmental improvements through behaviour change promotion, training, capacity building	Contribute to elimination of trachoma in Malawi by March 2019	Implementation in progress
<b>Nigeria</b>	WASH, NTD treatment, IEC and capacity programme	Mainstream NTD programmes into WASH initiatives; Demonstrate impact of WASH on incidence of NTDs	Reduced STH prevalence in ODF communities; improved reporting
<b>Philippines</b>	Study of STH prevalence in preschool aged children (PSAC) in relation to ODF programmes	Describe the status of STH control in PSAC in selected municipalities	Research; not applicable
<b>Philippines</b>	Study of STH prevalence in and nutritional status of school and preschool aged children	Determine prevalence and intensity of STH and nutritional status of SAC and PSAC in ODF and non-ODF villages	Research; not applicable
<b>South Sudan</b>	WASH infrastructure and training for people affected by leprosy	WASH provision and community mobilization on human rights	Improved access to water infrastructure, new latrines installed and used
<b>Sudan</b>	WASH hardware and training	Elimination of trachoma by 2020	Not evaluated
<b>Timor Leste</b>	Latrine construction and promotion	Improved access to and use of latrines	Reduced open defecation; suggested reduced child mortality
<b>Uganda</b>	Implementation of facial cleanliness and environmental improvements under the trachoma elimination programme	Promote facial cleanliness and environmental improvement in endemic districts to sustainably reduce trachoma prevalence and improve access to WASH	Construction/rehabilitation of sanitation and handwashing facilities; successful cross-sectoral coordination, planning and implementation; leveraged funding for water facilities; teacher and Village Health Teams training in hygiene promotion

<sup>a</sup> Further information available from: <http://water.care2share.wikispaces.net/>

<sup>b</sup> Inter-American Development Bank, Sabin Vaccine Institute and Pan America Health Organization. (2014) It Can Be Done: An Integrated Approach for Controlling and Eliminating Neglected Tropical Diseases.

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Geneva  
Switzerland  
[www.who.int/water\\_sanitation\\_health/en/](http://www.who.int/water_sanitation_health/en/)  
[www.who.int/neglected\\_diseases/en/](http://www.who.int/neglected_diseases/en/)

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