

Changing, Sustaining, and Measuring WASH-related Behaviors As Part of Integrated Disease Control and Elimination Programs

Session Date: Friday, November 3

Session Time: 1:00pm – 4:00pm

Session Location: Loch Raven I

Session Description: The goal of this session was to discuss, based on recent and ongoing studies, what works, in what context, and how to deliver scalable solutions that focus on coordination between WASH and NTD sectors. A recent systematic review commissioned by WHO has pointed to key gaps and opportunities for improving the design and effectiveness of F&E for elimination of trachoma. While there has been recent progress across NTDs for integrating national implementation plans, research, and program monitoring, challenges remain on how to effectively utilize the available research on the impact of WASH on the NTDs: there is a need for more theoretically-informed and evidence-based guidance for national programs.

Session Chairs: Matthew Freeman, Emory University
Anthony Solomon, World Health Organization

Session Rapporteur: Drew Deathe

KEY DISCUSSION POINTS

From planning to implementation: The realities and challenges of working across sectors in WASH and NTDs – Leah Wohlgemuth, *Sightsavers*

This talk presented examples from the field, specifically coordination of WASH in Ethiopia, implementation in Uganda and Zambia, and monitoring “F&E” data in Zambia through DHIS2. **Planning and coordination in Ethiopia:** joint WASH/NTD mapping. There are 102 districts in Ethiopia with NTD and WASH joint implementation. Of these, 38 districts have at least one endemic NTD, but have no WASH programming in place. Engaging regional and district levels in planning is critical. **Implementation in Zambia** with hand and face washing technologies that were once unavailable in the community. Community members preferred using Ndoo Chirizi (bucket with a tap) to tippy taps because they are easier to use, more efficient, and are easily moved and secured to structure. **Monitoring in Zambia** made use of WASH MIS, a mobile-to-web platform that allows the Zambian government to monitor WASH interventions in rural communities. The trachoma elimination program in Zambia proposed including 3 additional data elements to the data already being collected. Community champions review paper forms with Sanitary Action Group and submit via mobile phone. These community champions were already being paid and the additionally trachoma data responsibilities were added.

These examples of integrating WASH and NTDs highlight the importance of identifying WASH partners and incorporating NTDs into existing programmes. Both WASH and NTD sectors reach the poorest of the poor, these two can work and do so together. The two sectors need to build relationships and dispel the competitive nature between the two.

Questions and discussion

- What can this group add, and what related operational research can be done? Several respondents nominated the planning aspect of integration.

Changing, sustaining, and measuring WASH-related behaviors as part of integrated disease control and elimination programs – Matthew Freeman, Emory University

A literature review commissioned by WHO on F&E intervention design, planning, and implementation revealed that most F&E interventions have not aligned well with strategies that facilitate sustained behaviour change. Knowledge by itself does not lead to behaviour change, however, most F&E interventions for trachoma focus on knowledge and information dissemination. Andilaye, a trial aimed at developing and testing the impact of a demand-driven sanitation and hygiene intervention on sustained behaviour change and mental well-being is underway in Ethiopia. The Andilaye intervention consists of 11 key NTD-preventive WASH behaviors related to sanitation, personal hygiene, and household environmental sanitation. This intervention is unique in its positive encouragement approach to behavior change, promotion of small and incremental advances in the adoption of improved practices, and activities that catalyze behavioral change and maintenance.

It is important to appropriately align NTD and WASH-related interventions and go beyond knowledge-based interventions. Integrate interventions that address NTD-preventive behaviors into WASH programming emphasize the goal of changing behavior, but also the need to address maintenance of improved practices.

It was discussed that one of the largest barriers for this type of intervention may be that the improvements are demand-sided, meaning the community must pay for and provide the improvements related to sanitation, personal hygiene, and household environmental sanitation.

Questions and discussion

- This is one example of integration of NTD-related WASH interventions into a scalable program that fits within Ethiopia's health extension package. Additional operational research is needed to understand how this type of intervention could be scaled. What are the governmental capacities and gaps?
- The underlying drivers and barriers of some NTD-related WASH behaviors are not known and are not typically promoted within WASH projects and programs. Better operational research into how to promote behavior change and maintenance beyond the typical approach of knowledge dissemination (e.g., you should wash your face to prevent trachoma; everyone should dispose of human faeces in a way that isolates it from human contact to prevent transmission of worms) would provide much needed guidance to improve and sustain behaviors.

Utilization of multiple evidence streams to iteratively inform programing in a WASH randomized trial on trachoma and STH infection – Solomon Aragie, The Carter Center

Sanitation, water, and instruction in face-washing for trachoma (SWIFT) study in Ethiopia aims to determine the efficacy of non-antibiotic measures for trachoma elimination and model the cost-effectiveness of various strategies. Interventions consisted of construction of water points, promotion of water collection for hand- and face-washing, promotion of latrine construction, promotion of proper latrine use, and promotion of hygienic behavior in schools and communities. Bi-monthly checks of households, new water points, and schools will occur as well as mini-spot checks of households.

Further, annual disease surveillance will take place. Some challenges and lessons learned from this are low coverage and slow progress of latrine construction, behavior change takes time, and how important process indicators and fidelity measures to ensure that the intervention is being rolled out as intended.

Development and reliability of a novel facial and hand cleanliness metric: Potential implications for WASH-NTD program evaluation – Maryann Delea – Emory University, LSHTM

Personal hygiene is a risk factor for several NTDs that can be prevented by improving WASH practices and conditions. Some evidence suggests the metrics typically used by the trachoma community to measure facial cleanliness (presence/absence of ocular discharge, nasal discharge, flies on face, etc) lack reliability. Field testing of a potential new metric occurred as a sub-study embedded within an RCT in Ethiopia. Face swab protocol materials consist of sterile saline wipes, clear bag and label, and a “brown scale” used for scoring the colour of the wipe (refer to the presentation for more info). Inter-rater reliability analyses between non-blinded vs. blinded observers, and three blinded raters took place to assess the inter-rater reliability of the methods. Reliability was relatively high amongst several types of reviewers including field vs expert reviewer (moderate), multiple blinded reviewers (high), and blinded vs. computer-generated densitometry measures (high). Preliminary results were presented - moving forward, more complete and comprehensive analyses are required for all rater comparisons. There is a possibility that this novel strategy could be used in NTD research and programming efforts if reliability can be confirmed.

Questions and discussion

- This approach could be used to better quantify exposure risk above and beyond the current approach of assessing clean faces. More work is needed to determine whether there is an association between a facial (or hand) cleanliness metric generated in this way, and face- and hand-washing practices, for example.
- Should investigators try to prevent cross contamination between eyes of the same subject by changing the protocol for swabbing? This had not previously been considered, but is thought not to present a major ethical issue.

Group Discussion

The discussion was wide ranging, with some focus on how best to integrate WASH and NTD activities at programmatic level. One participant suggested that case studies are needed to better understand good examples of national-level integration. What countries have been successful? Where have there been challenges? Could there be a concerted advocacy effort in a select number of countries to determine how and where collaboration, communication and coordination are working?

At programmatic level, there is a need to integrate NTD-related WASH interventions within national WASH programming strategies. Where has this been done well? What are the key messages and modalities of delivery?

WASH community operates on a human rights framework vs NTDs operating on access to health framework. Some WASH interventions are not accompanied by health benefits. Can we ask WASH programs to use NTD indicators to test effectiveness of the NTD-preventive WASH interventions?

KNOWLEDGE GAPS IDENTIFIED

- How can WASH access be measured accurately and efficiently within NTD programs?

- What data are needed from the WASH community for parameterizing NTD modelling endeavors, and how can these be incorporated into national program monitoring and evaluation frameworks?
- How can national and sub-national data, as well as mapping data from the NTD community, be used to effectively advocate for better WASH targeting?
- What WASH interventions support control and elimination of NTDs?
- How can and should NTD-preventive WASH behaviors be included in WASH programming? What are the appropriate messages and entry-points to targeting NTD-related WASH as scalable in endemic areas?
- What are the prime drivers of NTD-related WASH behavioral change and maintenance? Why do some people adopt recommended behaviors early, and some very late? Answering these questions would allow us to understand why some individuals don't change behavior and give insights into how to specifically target them.

RECOMMENDED NEXT STEPS

- Agree upon standardized protocols, materials and methods to use to collect WASH data across programmes, countries and regions.
- Determine if there are better, more standardized ways of measuring NTD-related WASH behaviors (like clean faces)
- Determine the WASH parameters needed by modelers; communicate these to WASH researchers
- Undertake intensive basic research to identify behaviors needed to change pathogen transmission, and determine whether those behaviors are sufficient, on their own, to eliminate NTDs.
- Capture case studies for government stakeholders that are leading the integration of WASH and NTDs; provide guidance for country programs about steps to better coordinate and collaborate between sectors.
- Undertake work with social scientists to identify what governs early versus late adoption of NTD-related behavior change.
- Undertake health systems research to explore ways for better integrating WASH and NTD programming at large scale.
- Undertake implementation research to identify the types of latrines, hygiene practices, and water supplies that help prevent NTDs. What works in certain environments should be documented in detail for future application.