Latrine blocks at a healthcare facility in Kenya.

Case Study of Water, Sanitation, and Hygiene (WASH) in Healthcare Facilities in Ethiopia and Kenya: Key Findings and Recommendations

JANUARY 2018
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Globally, Many Healthcare Facilities Lack WASH Access

It is widely acknowledged that the Sustainable Development Goals, in particular access to quality essential health-care services, cannot be achieved without access to water, sanitation, and hygiene services. Yet many health care facilities lack basic necessities such as soap, water, and toilets. A 2018 global assessment of environmental conditions at health care facilities in 78 low- and middle-income countries estimated that 50% lacked piped water, 33% lacked improved sanitation, 39% lacked handwashing soap, and 39% lacked adequate infectious waste disposal (Cronk & Bartram, 2018). Using nationally representative data from six countries, the study found **only 2% of healthcare facilities provide all water, sanitation, hygiene, and waste management services.**

Beyond access to WASH and waste management services, another challenge has been achieving lasting hygienic behavior change at home and at institutions like healthcare facilities and schools. These conditions have implications for disease prevention and maternal-child health care efforts. Table 1 presents a summary of recommendations.

KEY TAKEAWAYS

BEFORE DESIGNING THE INTERVENTION

- Understand the present context.
- But don't forget the past.
- Consider patient points of view.
- Work within existing efforts.
- Remember that clinics are part of the community.

POWER TO THE PEOPLE

- Invest in leadership training.
- Pump up performance.
- Ensure all staff and patients get hygiene training.

SUPER STRUCTURES

- Fund robust water sources and distribution to all points of care, including to maternity bathing or shower facilities.

FINANCE FOR THE FUTURE

- Perform life-cycle cost analysis.
- Discuss budget line items with relevant parties including operation and maintenance costs for water supply and distribution, water treatment, soap, and managing medical and other wastes.

Table 1 – Summary of recommendations to address barriers that healthcare facilities face in maintaining WASH and waste management conditions and practices that meet standards

BARRIERS	RECOMMENDATIONS
Resources (workforce, facilities, and materials)	
• Not enough people trained in WASH and IPC	Following WHO recommendations, NGOs should support local and regional governments in ensuring all healthcare facility staff (including volunteers and cleaners) get WASH and IPC training and regular refresher training. Patients should also be educated on how to use WASH facilities and the benefits of doing so. A train-the-trainers method, where one person is trained and receives some incentive to train colleagues, could be an effective way to reach all staff.
• Some communities do not have toilets, want to use healthcare facility toilets	When designing new interventions, NGOs should consider (or advise governments on) community wide sanitation approaches. Community-led total sanitation interventions should include institutions as well as households.
• No water in handwashing stations, not at all points of care and latrines • Not enough water for cleaning facilities • Not enough water for patients to drink or clean themselves	When designing new interventions, NGOs should consider (or advise governments on) multiple uses of water for healthcare facilities, which have different needs than households or schools, including drinking water for patients, cleaning of wards, showering for patients, handwashing for staff and patients, disinfecting instruments. Because water is heavy and facility staff have multiple duties, NGOs should make access as easy as possible, e.g., pumps and pipes to get water to handwashing stations around the facility (including near latrines and waste management areas).
• No budget or funds for water treatment products, soap, cleaning supplies	When designing new interventions, NGOs should determine root causes (or help governments with this) for lack of needed WASH-related materials. Is it due to inappropriate budgeting? Lack of finance? Poor supply chain? Then appropriate actors for addressing these root causes (e.g., local/national government finance officials, private sector or government supply chain) should be engaged.
• Not enough cleaners	NGOs should provide technical advice to facilities on low cost ways to get piped water to all points of care and near waste management and latrines (as described above), which should reduce time and effort needed for cleaning.
• Poor waste management	When designing new interventions, NGOs should ensure that (or advise governments on) the cost for managing medical and other wastes, including operation and maintenance costs, are covered by adequate budgetary allocations.
Leadership support & competencies, Recognition and motivation, Change management, Organizational culture and quality, Health worker engagement	
• Only one respondent received leadership training • Kenya: One of six facilities have performance reviews for staff. • Kenya; No backup plans for WASH responsibilities during nurses' strike • Staff saw WASH-related activities like cleaning and filling handwashing stations as someone else's job	NGOs should support local / regional government in ensuring all healthcare facility directors get leadership training that includes education on the importance of WASH and IPC to healthcare, as well as performance management and contingency planning. Ethiopia has a robust leadership program already. Perhaps expanding this using a train-the-trainers method, where one person is trained and receives some incentive to train peers at other facilities, could be an effective way to reach all directors.
Autonomy and accountability, Monitoring and evaluation tools	
• Ethiopia: Examples of woredas not being responsive to facility requests • WASH and waste management at healthcare facilities does not appear to be included in supervisory checklists	NGOs should support local government health officials attending leadership training (see above).
• Facilities not held accountable for functional water supply, handwashing stations with water and soap, and clean latrines	In addition to following the recommendations of recent reviews (de Buck, et al., 2017; WaterAid, 2017), NGOs should consider replicating results-based financing programs that have shown success with improving health service delivery, ensuring that WASH and waste management related results / indicators are included. Consider patient points of view in pay for performance reviews and future evaluations. A representative sample of patients, especially pregnant women and mothers who recently delivered, could be interviewed about satisfaction with facility cleanliness and WASH facilities. Evaluation visits should be during operating hours, ideally, to observe hand washing at various points of care, toilet use, and waste management practices. A check for maternity bathing / shower facilities should be included.

RECOMMENDATIONS

An overall recommendation based on the findings of this case study is that NGOs should consider ways to improve WASH and waste management conditions at facilities where previous interventions have not been well maintained, whether directly with technical advice or funding, or by supporting local governments. Table 1 provides specific recommendations for NGOs to address barriers that healthcare facilities face in maintaining adequate WASH and waste management conditions.

PICTURED, LEFT

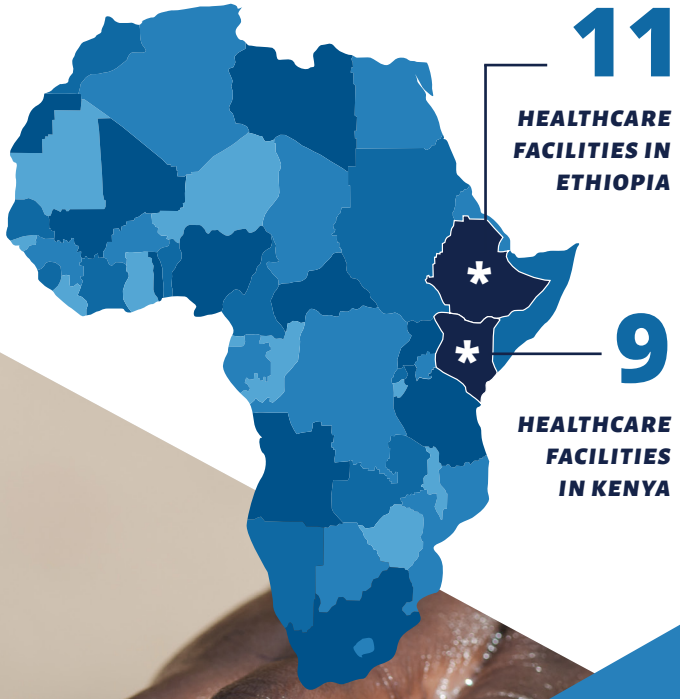
A temporary structure for cholera patients at an Ethiopian healthcare facility.

Purpose

The purpose of this case study was to ascertain the factors that triggered success of or challenges to sustained water, sanitation, and hygiene (WASH) services in healthcare facilities, as well as to consider the most useful roles that non-governmental organizations (NGOs) played or could play in supporting successes.

Sample Facilities

This case study was based on visits to 11 healthcare facilities in Ethiopia and 9 in Kenya where the Millennium Water Alliance (MWA) and other NGOs supported WASH and waste management. MWA members did not provide the full suite of WASH and waste management interventions at all observed facilities. For example, MWA members only provided water solutions at some facilities. Some of the observed facilities had WASH or other interventions by other organizations before or after the MWA interventions. Therefore, rather than being an evaluation of MWA's interventions and intended outcomes, this study was an opportunity to observe whether and how WASH interventions had been sustained over a year or more. It was intended as a learning opportunity for MWA and for other sector actors, despite the fact that MWA may not have been responsible for all aspects of WASH work done at each healthcare facility. Tables 2 and 3 present results for key WASH and waste management indicators at the observed facilities.



Case Study Criteria

Criteria were selected in collaboration with MWA based on the World Health Organization's Water and Sanitation for Health Facility Improvement Tool and Emory University's WASH Conditions Assessment Tool criteria, as well as other relevant national standards and research. Therefore, rather than being an evaluation of MWA's specific interventions and intended outcomes, this study was an opportunity to observe facilities where one or more WASH interventions had been conducted more than one year ago.

FACILITY TYPE	MAIN WATER POINT FUNCTIONAL	WATER ACCESSIBLE TO ALL USERS AT ALL TIMES	TREAT WATER ONSITE	TOILETS FUNCTIONAL	TOILET BLOCK FOR PATIENTS WITHIN 30M OF ALL PATIENT CARE AREAS	ALL TOILETS CLEAN	FUNCTIONING HAND HYGIENE STATION WITH SOAP WITHIN 5M OF LATRINES	FUNCTIONING HAND HYGIENE STATION WITH SOAP AT ALL POINTS OF CARE	INCINERATOR
Table 2 – Summary of WASH conditions at Ethiopia healthcare facilities									
Health Center									
Health Clinic									
Health Center									
Health Post									
Health Center									
Health Post									
Health Center									
Health Center									
Health Post									
Health Center									
Health Center									
Total Yes	6/11	4/11	6.5/11	8/11	7/11	7.5/11	1/11	0.5/11	2/11
Table 3 – Summary of WASH conditions at Kenya healthcare facilities									
Private Dispensary									
Private Dispensary									
Government Dispensary									
Government Dispensary									
Government Health Center									
Government Dispensary									
Government Dispensary									
Government Dispensary									
Government Dispensary									
Total Yes	5/9	4/9	7/9	8/9	9/9	6/9	0/9	0.5/9	5/9

These tables show representative criteria.

Key Findings

Maintaining WASH Services Continues to be a Challenge

None of the visited healthcare facilities in Ethiopia or Kenya met all the water, sanitation, hygiene, cleaning, and waste management criteria selected for the case study. Even having a functional water supply did not mean facilities had sufficient quantity or quality for all needs. The criterion most often met in Ethiopia was having a functional toilet. The criterion most often met in Kenya was having a toilet block for patients within 30 meters of all patient care areas. The criterion least often met in both countries was having a functioning hand hygiene station with water and soap within 5 meters of latrines, at all points of care, and near waste management areas.

These results are in line with evidence from other studies of WASH functionality in general as well as at healthcare facilities in particular. A common challenge for the WASH sector has been achieving lasting hygienic behavior change. Poor WASH and waste management conditions have implications for disease prevention and maternal-child health care efforts.

WASH is Low Priority

A question going into this study was whether facilities whose directors were good leaders were more likely to have WASH and waste management conditions that met standards. While this could not be determined, a few examples suggested that healthcare facilities maintaining WASH and waste management conditions that meet standards could be less about finance and more about staff priorities. This echoes findings of a review of Ethiopia's Clean and Safe Health Facilities program, which found that the facilities where the most change had been achieved were those where staff had a "commitment to the issue, energy and enthusiasm and an interest and appreciation of the issue of WASH and IPC [infection prevention and control]" (WHO, 2017). Therefore, rather than focusing simply on infrastructure and training at individual facilities, future WASH and waste management efforts in healthcare facilities should consider the dynamics of who sets and enforces priorities and how best to work within them.

PICTURED, CLOCKWISE FROM BOTTOM LEFT

ETHIOPIA

Temporary water supply.
One of the treatment rooms.
The spring-fed water source is piped to washbasins.
The incinerator is in the background.

KENYA

One of the disabled access toilets.
Handwashing station by men's toilets has spiderwebs in it; does not appear to have been filled recently.

A health worker in Ethiopia shows the soap at the handwashing station attached to the latrine blocks.

MILLENNIUM WATER ALLIANCE

ABOUT THE MILLENNIUM WATER ALLIANCE

The Millennium Water Alliance (MWA) was formed in 2002 by a group of NGOs to improve collaboration among NGOs working in the WASH sector in the developing world. MWA was formed to support efforts to achieve the Millennium Development Goals by offering sustainable solutions through collective impact, shared knowledge, and innovative programming and is now using these principles to support achievement of the Sustainable Development Goals. MWA seeks to advance high standards for program quality, transparency, and accountability, is a strong advocate for US leadership in effective foreign assistance, and is part of a global coalition to raise awareness of and commitment to water and sanitation.

Contact us at info@mwawater.org

IMPROVE INTERNATIONAL

ABOUT IMPROVE INTERNATIONAL

Improve International is a mission-driven research and consulting firm that seeks to improve the responses to the water and sanitation crises. We believe that people deserve to have high quality water and sanitation services, for life, and for generations. We play a unique role in the sector. We don't do water projects, we don't fund water projects, we just try to make them last forever. With a focus on accountability, learning, and innovation, we amplify the impact of international development organizations and donors.

Contact us at info@improveinternational.org.

This case study was co-funded by the Millennium Water Alliance and the Wallace Genetic Foundation.