

# Evaluation Tools for Water, Sanitation, Hygiene in Schools: Dar es Salaam, Tanzania

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## Background

Water, Sanitation, and Hygiene (WASH) programs in communities and schools improve health and reduce sanitation-related illness. With over \$300 billion spent in Sub-Saharan Africa between 1990-2015 to improve WASH services, monitoring and evaluation is seldom performed for schools despite importance to sustainability.

**GOAL: Develop a toolkit for school WASH evaluation in Dar es Salaam by extending and connecting evaluation guidance from WHO/UNICEF and the Tanzanian government.**

### In Sub-Saharan Africa

- Only 21% of schools had basic hygiene service<sup>1</sup>
- 47% of schools had no drinking water service<sup>1</sup>
- ~50% of water points installed fail within 5 years<sup>2</sup>



### In Tanzania

- ~70% of health budget spent on preventable WASH-related diseases<sup>3</sup>
- 8% children <5 die from preventable diarrhea<sup>3</sup>



UN Sustainable Dev. Goal 6.2 to "achieve access to adequate and equitable sanitation and hygiene for all" by 2030.

## Partners

Muhimbili Univ. of Health and Allied Sciences

- Dr. Hussein Mohammed: *preceptor*
- Irene John: *research partner, translator*



## Methods

### Survey Development

Extended existing WASH assessment materials

- WHO/UNICEF Joint Monitoring Programme (JMP)
- Tanzanian Government monitoring and implementation documents

#### Topics

- School demographics
- Existing resources
- Hygiene activities (clubs and lessons)
- Ongoing challenges
- Facility inventory
  - Water source/service
  - Sanitation (latrines/ drop holes)
  - Hygiene (handwashing stations)

Survey administered (in Kiswahili) to environmental and health teachers in 24 primary schools around Dar es Salaam between July 3-August 1, 2019.

### Data Mapping

Joint Monitoring Programme Standards in Schools			
Service levels:	Water Source	Sanitation	Hygiene
<ul style="list-style-type: none"> <li>• None</li> <li>• Limited</li> <li>• Basic</li> <li>• Advanced (Safely Managed)</li> </ul>			
<b>Basic Facility Criteria</b>	Drinking water from an improved source is available at the school	Improved facilities (flush/ pour flush toilets, pit latrine with slab, composting toilet) which are single-sex and usable at school	Handwashing facilities that have water and soap are available

Reported and observed data were collected and mapped to the "basic" service level of WHO/UNICEF<sup>4</sup> JMP (above) and Tanzania government indicators to determine facility status. Chi2 tests for association were used to assess relationships between facility quality and WASH behavior.

## Results

- 92% of schools observed did not meet basic facility criteria for hygiene.
- 42% did not meet basic water service.
- 100% of schools met criteria for basic sanitation facilities, but
- 75% did not meet Tanzanian government latrine ratio standards or WHO/UNICEF JMP standards.

Some facilities that did not meet drophole ratio standards were better maintained than others that did. A usability index was developed to quantitatively define "usable at school" to fill a gap in existing JMP indicator criteria. Usability scores were assessed and used in Chi2 tests for association with other variables.

**Usability Criteria:**  
 Cleanliness/Maintenance  
 Odor  
 Privacy/Security  
 Access to Sanitation and Water  
 Water Availability

- No association between latrine quality and staff hours spent on WASH or staff training for WASH administration.



## Discussion

While funds are allocated to address initial WASH services, services tend to be short term due to:

- 1) Lack of coordination between schools and district for long-term support
- 2) Challenges that result in poor evaluation and maintenance at the school level
- 3) Facilities not used for intended purposes

### References

1. Drinking water, sanitation and hygiene in schools: Global baseline report 2018. New York: United Nations Children's Fund (UNICEF) and World Health Organization, 2018.
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3. Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS MIS), 2015-16; NBS et al., Tanzania Service Provision Assessment Survey 2014-2015, 2016.
4. Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines. Geneva: World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2017. Licence: CC BY-NC-SA 3.0 IGO.