African Journal of Public Health and Health Systems

# A Data Descriptor for a Multi-Sectoral School-Based WASH Intervention and Soil-Transmitted Helminth Reinfection in Pemba Island, Tanzania

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**Published:** 26 August 2012 | **Received:** 30 March 2012 | **Accepted:** 02 July 2012

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**DOI:** 10.5281/zenodo.18529831

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## Abstract

Soil-transmitted helminth (STH) infections remain a public health burden in many low-resource settings. School-based deworming is widespread, yet reinfection is common. Integrated water, sanitation, and hygiene (WASH) interventions in schools may complement chemotherapy, but robust data on their effectiveness are needed. This data descriptor documents a curated dataset from a study assessing a multi-sectoral school-based WASH intervention's effect on STH reinfection rates among schoolchildren on Pemba Island, Tanzania. Its objective is to provide a reusable resource for analysing links between school WASH infrastructure, behaviours, and parasitic reinfection. The dataset originates from a longitudinal study. Stool samples were collected at baseline and follow-up for STH diagnosis via the Kato-Katz technique. Structured surveys and observational checklists captured data on school WASH facilities, their maintenance, and hygiene behaviours. The intervention comprised improved water supply, gender-separated and accessible latrines, handwashing stations with soap, and behaviour change education. Data were cleaned, anonymised, and organised into relational tables. The dataset contains complete parasitological and WASH survey records for over a thousand participants. Preliminary analysis suggests a nuanced relationship between WASH and reinfection; for instance, a lower prevalence of any STH reinfection was observed in intervention schools with sustained soap availability at handwashing stations compared to control schools. This dataset offers a detailed resource for investigating the role of specific school-based WASH

components in mitigating STH reinfection. It underscores the complexity of measuring WASH intervention outcomes and highlights the importance of sustained service levels. Researchers are encouraged to use this dataset for further analysis, including multivariable modelling of specific WASH factors. Policymakers and programme implementers may use it to inform the design and monitoring of integrated school health programmes. soil-transmitted helminths, school health, water sanitation and hygiene, reinfection, dataset, Tanzania, sub-Saharan Africa. This data descriptor provides a validated, accessible dataset to support secondary analysis on WASH and neglected tropical diseases, facilitating evidence-based public health decisions.

**Keywords:** *Soil-transmitted helminths, WASH intervention, School-based health, Sub-Saharan Africa, Neglected tropical diseases, Reinfection, Cluster-randomised trial*