

Water, Sanitation and Hygiene in Kenya: Where Health and Development Meet

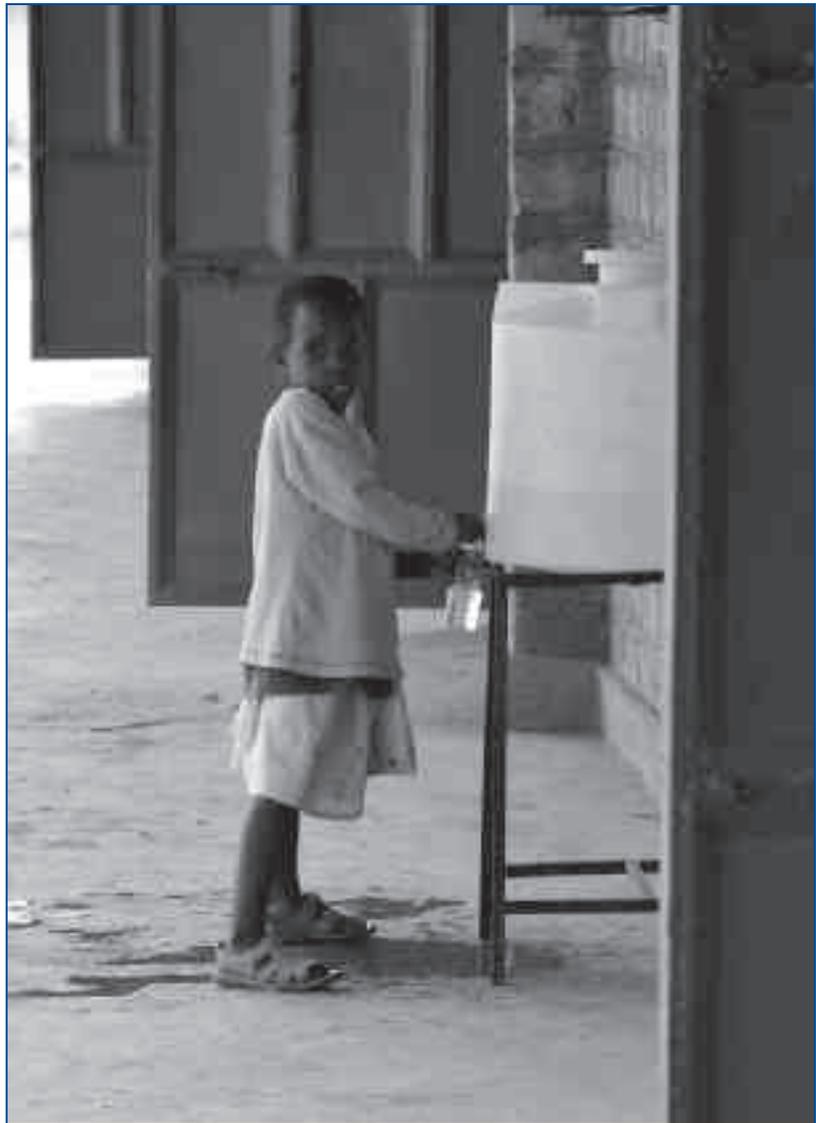
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For the past 4 years my research team has been working on a series of projects related to water, sanitation and hygiene in Kenya, Ethiopia, Madagascar and Mali. Much of our work in Kenya focuses on understanding the impact of school-based water, sanitation and hygiene (WASH) on health and educational outcomes. Poor WASH conditions can result in exposure to diarrheal pathogens and intestinal parasites, leading to illness, absenteeism and poor educational performance. The driving question is whether and how school-level improvements can reverse these patterns without broader community interventions.

The project is based in rural areas of Nyanza Province in western Kenya and is done in collaboration with Great Lakes University of Kisumu and CARE. It is designed to generate knowledge on effectiveness and sustainability and to use the information to influence policy and practice at a national level. The project includes a randomized trial to measure health and educational impacts, along with qualitative and contextual assessments of a wide range of issues including menstrual management for girls, anal cleansing, and interactions between communities and schools.

Preliminary results demonstrate that, as expected, girls are more affected by poor WASH conditions in schools and at home. This effect is predominantly among girls in poorer or marginalized households. Similarly, improvements in school WASH primarily benefit girls and not boys. Data from the trial also show that school-based interventions can be effective in changing water treatment behaviors among households within the community. This diffusion effect is strongest among poor households, suggesting that school-based interventions can partially offset social and economic-induced disparities in drinking water quality.

One of the greatest challenges for improving school WASH relates to maintain clean latrines, ensuring soap for handwashing, and treating water for drinking. While government policies require these, schools lack the necessary resources and there is seldom a system of accountability to ensure conditions are sustained. Our current work is exploring different models for that, which combine community-based accountability with improvements in school capacity for sustaining



In addition to the schools project, we also work with our partners in western Kenya to explore the mechanisms for creating disparities in household drinking water quality and sanitation. This work explores specific sources of contamination and behavioral risk factors, but also explores the role of social norms and neighbors in creating disparities.

Richard Rheingans is associate professor in the Center for African Studies and the Department of Environmental and Global Health. Funding for the projects in Kenya is from the Bill and Melinda Gates Foundation and Global Water Challenge.