WASH Impacts on School Enrollment

The impact of school water, sanitation, and hygiene improvements on pupil enrollment and gender parity in enrollment

Introduction

In Kenya, 1.1 million primary school-aged children remain out of schools—the world’s 7th largest out-of-school population.¹ There is also a trend of decreasing gender parity in enrollment with increasing age. However, there is limited but compelling evidence that school water, sanitation, and hygiene (WASH) improvements can positively impact education and enrollment.

The objective of this study was thus to assess if a school-based hygiene promotion, water treatment, sanitation, and water source intervention would increase enrollment of primary school pupils, particularly girls, in western Kenya.

Findings gathered over the course of the multi-year project suggest that increased school enrollment and improved gender parity in enrollment may be influenced by a comprehensive WASH program that includes an improved water source. This may be because water source improvements alleviate girls’ water collection burden and provide an important resource for girls as they begin menstruation, enabling them to more easily and comfortably attend school. The study also found that schools with poor water access during the dry season may benefit most from these types of interventions.

Research

Within four districts of Nyanza Province, Kenya, 135 “water available” schools were randomly selected into one of three treatment arms: 1) hygiene promotion and water treatment; 2) hygiene promotion, water treatment, and sanitation improvement; and 3) a control group. “Water available” was defined as having a water source within one kilometer.

Hygiene promotion consisted of a three-day teacher training on the importance of handwashing, soap, provision of water containers, and hygiene education. Water treatment included the provision of containers with taps for drinking water storage and a one-year supply of WaterGuard. Schools with sanitation improvement received latrines.

Among “water scarce” schools, 50 were randomly allocated to two arms: 1) hygiene promotion, water treatment, sanitation, plus water supply improvement; and 2) the control group.

Data on total enrollment as well as the proportion of female enrolled students was collected from both water available and water scarce schools.

Findings

Among water scarce schools, those that received a hygiene promotion, water treatment, sanitation improvement, and water supply intervention demonstrated an increased enrollment of 26 additional pupils per school on average. The proportion of girls enrolled in school also significantly increased by 4%, with much of the increase being among the older girls.

Among water available schools with better baseline water access during the dry season, there was no evidence of increased enrollment in schools that received either of the treatment arms. In addition, there was no evidence of improved gender parity in these water available schools.

Conclusions

This study is one of the first to use a randomized design to test the impact of school WASH improvements on enrollment and gender parity in enrollment. Though it is not entirely clear whether increases in enrollment were actually due to reduced absences or to more pupils joining school, the authors found compelling evidence that a comprehensive WASH improvement program in schools with poor water access during the dry season increases overall school enrollment. In addition, female students were impacted more than male students, indicating that the intervention improved gender parity in enrollment.

This brief is based on the article, ‘A cluster-randomized trial assessing the impact of school water, sanitation, and hygiene improvements on pupil enrolment and gender parity in enrolment.’ Joshua V. Garm, Leslie E. Greene, Robert Dreibelbis, Shadi Saboori, Richard D. Rheingans and Matthew C. Freeman. (2013). Journal of Water, Sanitation and Hygiene for Development.