About 1.8 billion of the world’s population consumes water from highly contaminated sources. Level of fecal contamination of water differs between point-of-source (POS) and point-of-use (POU). Providing water quality information to households is known to improve water, sanitation and hygiene behaviors and reduction of diarrheal diseases. Studies in which water quality information is disseminated to randomly selected households potentially underestimate the impacts, missing the potential learning experiences from household self-water testing and also missing the most effective channels in the delivery of such information to the treatment groups. We conducted water testing experiments in southern Ghana (Greater Accra region) in which students in public basic schools, and adult household members were randomly assigned to receive water testing kits and water quality improvement messages. Selected participants were also trained on the use of water testing kits in testing for E. coli; an indicator bacteria of fecal contamination of water. Baseline orthogonality tests are used to check the similarities and differences between the intervention groups (clustered randomized design). Difference in difference (or comparison of means) estimators are analyzed by gender and type of participants (students vs adult household members). Robustness checks and sensitivity analysis are performed by testing for heterogeneity in treatment effects in order to limit false predictions/estimates. Short-run program effects are estimated for a wide range of outcome variables including water sources, diarrheal diseases, water transportation, and handling and storage techniques, among others. Demand for water testing (measured by participation rate) was high for students’ intervention group compared to adult household members group. Participation rate (used to proxy demand) was slightly higher for females compared to males.