3ie-IFPRI Seminar

Encouraging stewardship of a common good: Experimental evidence from Kenya

November 13, 2014

Vivian Hoffman, Research Fellow at the International Food Policy Research Institute (IFPRI), presented her co-authored paper "Encouraging stewardship of a common good: Experimental evidence from Kenya" at the 3ie-IFPRI joint seminar series in Washington D.C. on November 13th. Hoffman's paper evaluates the impact of introducing up-front payments and threats of removal of chlorine dispensers on chlorine usage in rural Kenyan villages.

The study sample consisted of 126 villages stratified by willingness to pay for chlorine, and randomly assigned to four treatment groups. The Free Provision treatment villages (12 water sources) were offered free provision of both the dispenser and chlorine refills. The Up-front Payment treatment villages (48 water sources) were offered the dispenser at a subsidized $12.5 price and were responsible for purchase of chlorine refills. The Threat of Removal villages (44 water sources) received portable dispensers that would be removed if found not to contain chlorine during unannounced visits. Finally, the Comparison treatment villages (22 water sources) received free dispensers but were required to purchase chlorine refills. The primary outcomes of interest consisted of household chlorine usage after three months of dispenser installation and the availability of chlorine within the dispensers during random visits over an eleven month period. A Difference-in-Difference estimation strategy, using a linear probability model, was applied to estimate the impact of the treatments on these outcomes.

The paper finds no significant effect of up-front payment on the availability of chlorine in the dispensers or on chlorine usage. On the other hand, the threat of removal treatment led to a 20% point increase in the probability of dispensers containing chlorine, although better maintenance of dispensers did not translate into higher rates of usage in the those villages. The author highlighted the finding that communities with free refills consumed sufficient amounts of chlorine, while households in other treatment arms consumed only 20% to 30% of the recommended dose.

Eric Djimeu, Evaluation Specialist at 3ie and discussant for this seminar, commented on the absence of short-term impacts of the intervention (3 months), compared to the significant long-term impacts after 11 months. Djimeu also remarked on the importance of clearly explaining the overlap between intervention treatment arms. Participant questions revolved around the possibility of contamination across treatment arms, if households were able use water wells outside their treatment area.

This summary was prepared by Hisham Esper and Kara Ingraham.