



Effect of community health clubs on child diarrhoea in western Rwanda: cluster-randomised controlled trial

Background: Community health clubs are multi-session village-level gatherings led by trained facilitators and designed to promote healthy behaviours mainly related to water, sanitation, and hygiene. They have been implemented in several African and Asian countries but have never been evaluated rigorously. We aimed to evaluate the effect of two versions of the community health club model on child health and nutrition outcomes.

Methods: We did a cluster-randomised trial in Rusizi district, western Rwanda. We defined villages as clusters. We assessed villages for eligibility then randomly selected 150 for the study using a simple random sampling routine in Stata. We stratified villages by wealth index and by the proportion of children younger than 2 years with caregiverreported diarrhoea within the past 7 days. We randomly allocated these villages to three study groups: no



intervention (control; n=50), eight community health club sessions (Lite intervention; n=50), or 20 community health club sessions (Classic intervention; n=50). Households in these villages were enrolled in 2013 for a baseline survey, then re-enrolled in 2015 for an endline survey. The primary outcome was caregiver-reported diarrhoea within the previous 7 days in children younger than 5 years. Analysis was by intention to treat and per protocol. This trial is registered with ClinicalTrials.gov, number NCT01836731.

Findings: At the baseline survey undertaken between May, 2013, and August, 2013, 8734 households with children younger than 5 years of age were enrolled. At the endline survey undertaken between Sept 21, 2015, and Dec 22, 2015, 7934 (91%) of the households were re-enrolled. Among children younger than 5 years, the prevalence of caregiver-reported diarrhoea in the previous 7 days was 514 (14%) of 3616 assigned the control, 453 (14%) of 3196 allocated the Lite intervention (prevalence ratio compared with control 0.97, 95% Cl 0.81-1.16; p=0.74), and 495 (14%) of 3464 assigned the Classic intervention (prevalence ratio compared with control 0.99, 0.85-1.15; p=0.87).

Interpretation: Community health clubs, in this setting in western Rwanda, had no effect on caregiver-reported diarrhoea among children younger than 5 years. Our results question the value of implementing this intervention at scale for the aim of achieving health gains.

May 01, 2017