

**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 caregiver-reported 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% CI 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