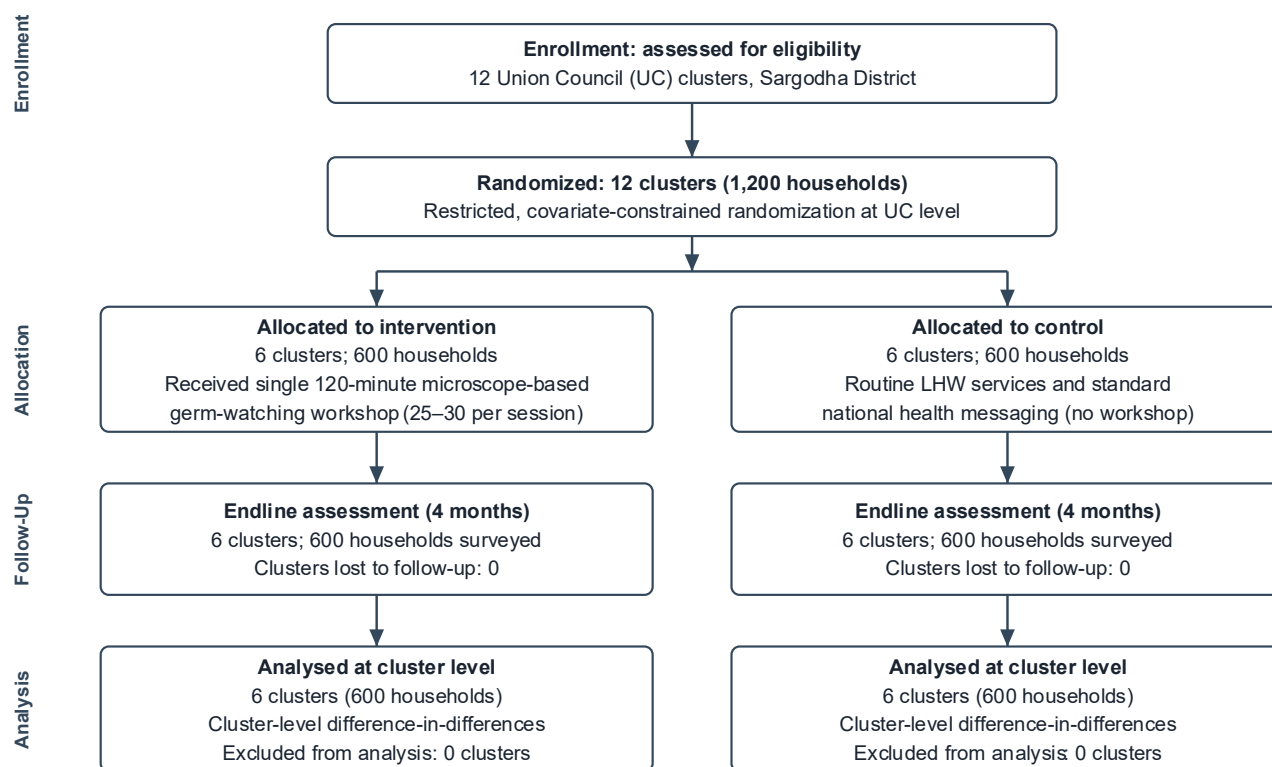


**Microbe Literacy Initiative cluster RCT, Sargodha District, Punjab, Pakistan
(ClinicalTrials.gov NCT07771738)**

Baseline and endline data were collected as repeated cross-sectional surveys within the same clusters; the cluster (UC) was the unit of randomization and analysis.

Supplementary Figure S1. CONSORT flow diagram (cluster randomized trial).

Notes: The Union Council (UC) was the unit of randomization and of analysis; households were the unit of enrolment. Twelve UC clusters were allocated 1:1 to the intervention or to routine services by restricted, covariate-constrained randomization, giving six clusters and 600 households per arm (1,200 households in total). The intervention was a single 120-minute microscope-based germ-watching workshop delivered by Lady Health Workers to groups of 25–30 participants; control clusters received routine services and standard national health messaging.

Assessment and analysis: Baseline and endline data were collected as repeated cross-sectional surveys within the same clusters approximately four months apart (1 May to 31 August 2024), rather than by individual longitudinal follow-up; cluster-level completeness is therefore reported, and no clusters were lost or excluded. Effects were estimated at the cluster level using a difference-in-differences comparison of the six intervention and six control clusters, with 95% confidence intervals. Intracluster correlation coefficients were estimated from the baseline data (0.09–0.12 for the hygiene outcomes).

Reporting. Prepared in accordance with the CONSORT 2010 statement and its extension for cluster randomized trials.