

# Community Case Management of Malaria

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Community case management and universal access to testing before treating for malaria has been endorsed by agencies such as, WHO, UNICEF and major civil society organisations. This strategy combined with services for other childhood illnesses have been scaled up in 20 sub-Saharan countries. It aims to increase access to prompt, effective treatment to those where significant barriers to public health systems exist. Despite the increased momentum behind the use of community based programmes and malaria rapid diagnostic tests (RDT), limited evidence exists on their operationalization in different transmission settings using different community providers.

## STUDY DESIGN

We conducted two cluster-randomised trials over two years to evaluate the impact and cost-effectiveness of RDTs when used by community health workers (CHWs), compared with treatment based on the patient’s signs and symptoms- in a high and a low malaria transmission setting in Southwest Uganda.

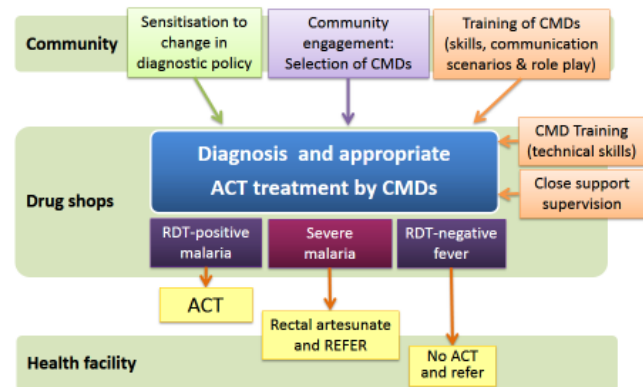
A total of 389 CHWs in 128 communities were randomised to receive training on the use of RDTs or on presumptive diagnosis. All CHWs also attended a 3-4 day training workshop on malaria case management according to algorithms which covered ACT prescription, rectal artesunate pre-referral treatment, and when to refer. CHWs were provided with pictorial job aids and forms to record treatment and refer patients. The training included playing roles to simulate making clinical decisions and promote communication with patients. CHWs randomised to intervention clusters were also given training on how to perform, interpret RDTs and prescribe ACTs based on the test’s result. The primary endpoint for both trials was appropriate treatment consistent with a double read blood slide. Supporting interventions included activities to raise community awareness; and close support supervision for the first six months of implementation.

- Primary objectives:**
- Examine validity of RDTs in identifying malaria infection when used by community health workers (CHWs)
  - Evaluate impact of use of RDTs by CHWs on the proportion of children receiving appropriate ACT treatment for malaria [primary endpoint].
  - Compare cost-effectiveness of RDT use in malaria community case management.
  - Investigate the consequences of diagnostic testing by CHWs – referral, household costs & adherence to ACTs.
  - Perceptions and acceptability of diagnostic testing to CHWs, community & staff at health facilities.

## PRELIMINARY FINDINGS

Over 14,000 children were seen by CHWs in both transmission sites and compliance with mRDT results exceeded 85% and over 95% of patients in control arms received an ACT, compared to 44% in the high transmission mRDT arm, reducing ACT treatment by 51%. In the low transmission area, less than 10% of children in the RDT arm were treated with an ACT vs. 94% in the control arm, reducing ACT prescription by 87%. Referral was more common in RDT arms compared to control, in low transmission settings non-severe illnesses accounted for over 60% of referrals in both arms, compared with severe illnesses. In the high transmission setting severe referrals were more common in the control arm (78%) than in the RDT arm (40%). Referral completion by patients was low in both sites, but was higher where CHWs used RDTs (13% vs. 4% presumptive treatment) in the high transmission site.

## Intervention Design and Outcomes



## Impacts on Health Facility Caseload

One year prior to the implementation of the trial health facility outpatient department (OPD) attendance resembled seasonal attendance. During the course of the trial a decrease was observed in malaria and other OPD diagnoses.

