



# Integrated community case management in Myanmar

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Lessons from Sagaing region

## Key learning

- With correct effective supervision and training, malaria volunteers can diagnose and treat uncomplicated diarrhoea and pneumonia, provide timely referral to save lives, and accurately prescribe antibiotics.
- Training malaria volunteers in integrated community case management can successfully improve motivation and retention as malaria cases diminish, improving surveillance capacity.
- To ensure high quality services, volunteers require responsive and regular supervision.
- Short refresher training sessions and targeted supervision are key to the provision of sustainable and high-quality supervision.



iCCM refresher training for malaria volunteers, Myanmar

## Background

Access to high-quality healthcare for childhood illnesses such as pneumonia and diarrhoea is severely limited in Myanmar, particularly for people in remote, hard-to-reach locations.<sup>[1]</sup> This, exacerbated by a lack of local knowledge around the signs and symptoms of malaria and malnutrition, has led to Myanmar having the highest child-mortality rate in southeast Asia.<sup>[2]</sup> The United Nations Inter-Agency Group for Child Mortality Estimation estimates this figure to have been 40 deaths per 1,000 live births in 2016,<sup>[2]</sup> while Myanmar's own National Health Plan 2017-2021 puts the estimation higher, at 72 per 1,000 live births.<sup>[3]</sup>

In an effort to provide health services to its 64,134 villages, the government of Myanmar has championed community case management (CCM) as a viable means of healthcare provision. The Ministry of Health and Sport (MoHS) has established a national CCM programme that has formed an integral part of Myanmar's health work-force. Local village health workers (VHWs) in the national CCM programme are trained to diagnose and treat simple pneumonia and diarrhoea without dehydration in areas with limited access to health facilities. Through its National Malaria Control Programme (NMCP), it has also established a network of VHWs known as malaria volunteers (MVs) to diagnose, treat and refer cases of malaria in malaria endemic towns and villages.

## Project overview

At the request of the MoHS, to ensure the health system's capacity to respond to all major childhood illnesses, from June 2016 to June 2017 Malaria Consortium implemented a pilot project that sought to integrate and scale up the two CCM components. Guidelines, training materials and supervision tools from the national CCM programme were updated to include sections on malaria and malnutrition, with the integrated approach rolled out through the NMCP MV network in 90 villages across three hard-reach townships in the Sagaing region: Banmawk, Kalay and Pinlebu. All three townships are characterised by poor infrastructure, limited access to health facilities, dysfunctional transportation systems, and internal and external migration flows.

MVs were trained to manage cases of pneumonia and diarrhoea, as well as malaria, and assess and refer cases of malnutrition. By expanding the roles and responsibilities of MVs in this way, Malaria Consortium also sought to improve MV motivation and promote the retention of MVs in areas where malaria transmission rates are declining. Retaining their role is critical to the tracking and surveillance of increasingly rare malaria cases in a country on the brink of elimination.



## Integrated community case management

Malaria Consortium uses the integrated community case management (iCCM) approach to deliver primary healthcare services in our programmes. ICCM aims to reduce child mortality rates by using community health workers to target a range of illnesses in low-income and isolated communities. Experiences of using iCCM in the Sagaing region suggest that trained MVs can effectively deliver a number of treatments and services to children under five in Myanmar. These include rapid diagnostic tests (RDTs) and artemisinin combination therapy for malaria; respiratory timers and amoxicillin treatment to diagnose and treat uncomplicated pneumonia; oral rehydration solutions and zinc treatment for diarrhoea; and assessment, referrals and prescription of antibiotics for malnutrition.

Malaria volunteer screening a child for malnutrition

## Activities

### 1. Government engagement and consultation

Malaria Consortium worked with health actors from national, regional and township levels, building on existing government-run mechanisms and networks to strengthen and expand health services. The pilot project was delivered in partnership with MoHS senior officials including the Director of the Child Health and Development Division, the Programme Manager of the NMCP and the Director of the Nutrition Development and Research Division. Collaboration between MC staff and government actors was central to project design and implementation.

### 2. Village selection

A country-specific implementation guide for the selection of villages and MVs was produced for NMCP team leaders and Township Medical Officers (TMOs) in Myanmar. The selection criteria recommended that only villages lacking local health facilities, with limited access to township hospitals, and those already containing MVs from the NMCP, should be chosen.

### 3. Training and bespoke training manual

An eight-day training of trainers programme was delivered to 13 'master trainers' from township health departments and the National Malaria Control Programme. Master trainers were introduced to iCCM and taught the necessary skills to train both supervisors and MVs.

The training of trainers offered an opportunity for participants to provide feedback and input into the iCCM training manual and job aids. Existing MoHS CCM training materials and job aids, which included only the Department of Child Health's guidance, were further updated and refined based on learning from previous Malaria Consortium projects to include sections on malaria and malnutrition. After completing their own training, master trainers provided initial six-day sessions on iCCM and supervision for basic health staff (BHS) and eight-day iCCM sessions for MVs, using the newly developed training manual. MVs were taught to diagnose, treat and refer illnesses, provide nutrition counselling, keep records using the patient register, and engage with patients. Throughout the project, refresher training was provided to both MVs and supervisors.

### 4. Supervision

MVs received regular supervision from trained BHS and Malaria Consortium project staff. Based on the existing MoHS CCM implementation guide, BHS supervision initially took place on a weekly basis, before being reduced to twice a month and finally to once a month, dependent on satisfactory MV performance. Malaria Consortium project staff provided additional monthly supervision



One of the children benefiting from the expanded skills of the malaria volunteers

towards the start of the project. During supervision visits, BHS and Malaria Consortium staff identified support needs, provided feedback and mentoring, and reviewed the accuracy of patient registers.

Directors from the MoHS (NMCP and Child Health Development Division) also conducted one supervision visit per township for MVs and BHS.

### 5. Monitoring and reporting

Monitoring and reporting took place regularly and were integrated into supervision visits. Existing monthly reporting forms from the national health system were adapted for data collection on key iCCM indicators including availability of supplies and iCCM treatment and referrals, while national supervision checklists were updated to include elements on malaria and malnutrition. Supervisors monitored MV performance using the checklist, assessed local satisfaction and acceptability of services through community feedback forms, and monitored drug usage and stock outs. Resupply systems were incorporated into existing supervisory mechanisms.

Monitoring and evaluation assessments were also carried out by a consultancy at baseline, mid-term and end-line to determine acceptability and feasibility before, during and after the project.



A midwife supervises a malaria volunteer

## Results

Findings indicate that, with the correct training and supervision, non-qualified community members can successfully deliver a range of health services to children under five, including accurately and safely prescribing antibiotics.

By the end of the project, the following successes were achieved:

- **99 percent** of MVs were correctly prescribing amoxicillin and **94 percent** were correctly prescribing cotrimoxazole.
- **95 percent** of MVs were able to count respiratory rates correctly, **98 percent** could accurately identify severe signs of pneumonia, and **90 percent** could correctly identify cases for referral.
- **91 percent** of MVs were able to assess malnutrition using mid upper-arm circumference (MUAC) tape measurement and **90 percent** could accurately use the weighing scale.

## Lessons learnt

Corrective actions were implemented based on monitoring and reporting data, resulting in improved project outcomes and a number of important lessons learnt for future iCCM delivery:

- Integrating pneumonia, diarrhoea and nutrition assessments into MVs' work is an effective strategy for improving motivation and retention. Despite downward trends in malaria transmission, 90 percent of trained MVs were still active by the end of the project. Nine MVs dropped out due to marriage, pregnancy, work, study, or dismissal.
- Existing MVs were able to learn relatively complex skills for assessing, treating and referring pneumonia, diarrhoea and malnutrition after receiving training, refresher training and ongoing, targeted, high-quality supervision.
- iCCM can successfully bridge gaps in access to health services at the community level and reduce the workload at formal health facilities.
- Targeted supervision can make better use of limited BHS time and improve MV service delivery. Weekly supervision during the early stages was found to be impractical, given the busy schedule of BHS. Universal monthly supervision after the first three months, as recommended in the CCM implementation guide, however, was not sufficient for all MVs. Malaria Consortium project staff found, during their routine supervision visits, that some MVs still encountered difficulties, particularly around the prescription of antibiotics. In response, the frequency of BHS supervision was adjusted and, based on the findings of supervision reports, targeted to enable BHS to provide bi-monthly visits to those in greatest need of support.
- Regular refresher training for MVs can also address issues of poor service delivery. Based on data collected during supervision visits and during the mid-term survey, it was determined that MVs were underperforming and that refresher training was needed, particularly around the prescription of antibiotics for pneumonia and subsequent patient follow up. After regular refresher training, misuse of antibiotics had decreased from 200 cases in September 2016 to zero by March 2017 and the number of children receiving follow-up care had increased.
- Shorter refresher training sessions can encourage higher MV turnout. A five-day refresher training session for MVs, as had originally been planned, was found to be impractical and infeasible, as MVs did not feel able to stay away from their villages for five days at a time. To promote a high turnout, the length and frequency of refresher training was adjusted, with one day sessions delivered on a monthly basis in each township, with a consistent turnout of between 70 and 90 percent.
- Systematic preparation of early training sessions, using findings from supervision visits, can however create demand for longer training sessions. At the request of MVs, training sessions were eventually extended from one day to three days. Demand for longer sessions increased as findings from supervision reports and examples from patient registers were incorporated into the training curriculum. The three day training session had a turnout of 90 percent.
- Additional refresher training for supervisors may be needed to improve the quality of supervision given to MVs. Central supervision visits conducted by directors from the MoHS found that the quality of supervision was inadequate. In response to these findings, refresher training for supervisors was organised and delivered in collaboration with TMOs.
- Shorter refresher training sessions are more practical for supervisors. There were difficulties in organising workable refresher training dates for all supervisors due to the competing demands on BHS. Three-day refresher trainings, as had originally been planned, were found to be impractical as they took up too much time. In response to BHS' concerns, one or two-day training sessions were delivered twice in each township.
- Supervision visits provide a useful opportunity to collect data for monitoring and reporting purposes. Through supervision checklists, reviewing patient records, observation, and by interviewing caregivers, supervisors assessed MVs' skills and knowledge and determine when refresher training was needed to improve service delivery.
- Resources can be utilised more effectively by selecting only villages with limited access to health facilities to receive iCCM services. In preparing for the pilot-project, the TMO of Pinlebu did not comply with the village selection criteria; two villages were, in fact, in close proximity to the township hospital. iCCM services were more widely used in remote, hard-to-reach villages with limited access to existing health facilities.

## Recommendations

- ICCM should be scaled-up to build the capacities of MVs and BHS across the country, increase access to essential health services in hard-to-reach areas, and should be supported as an essential tool for motivating MVs and strengthening malaria surveillance.
- Dedicated monitoring and evaluation staff at the township health department should be employed to undertake monthly reviews of data from patient registers and BHS supervision reports, to identify MVs in greatest need of supervision and provide feedback to supervisors.
- The busy schedule of BHS should be considered during scale-up design, and supervision should be targeted to make the best use of limited BHS availability. Those MVs whose performance is found to be poor should receive bi-monthly supervision.
- Guidelines for the use of the supervision checklist and other reporting tools such as records, patient registers and reports, should be introduced, written in local languages, to strengthen monitoring capacity and promote the ongoing improvement of service delivery.
- Both supervisors and MVs should receive refresher training one or two months after activities commence to reinforce learning and improve performance.
- The curriculum for MV refresher training should be adapted, based on findings from supervision visits, to make sessions relevant to the needs of MVs and improve attendance. BHS refresher training should not be too time consuming to ensure high attendance.
- Training for supervisors should focus more on developing the necessary communication skills to enable them to establish trust and build relationships with communities and MVs. This will enable them to conduct more thorough interviews and gain more useful qualitative feedback for monitoring and reporting purposes.
- Training materials should be further updated according to lessons learnt from the iCCM Myanmar pilot project.
- The selection process of villages should be monitored and TMOS encouraged to follow the inclusion criteria, and should visit selected villages to assess their suitability.

Nurse conducting malnutrition check-up, Myanmar



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## About Malaria Consortium

Malaria Consortium is one of the world's leading specialist non-profit organisations. Our mission is to improve lives in Africa and Asia through sustainable, evidence-based programmes that combat targeted disease and promote child and maternal health.

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