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USAID MIKOLO PROJECT

TECHNICAL BRIEF
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ASSURING THE QUALITY OF COMMUNITY-BASED HEALTH SERVICES IN MADAGASCAR – A NEW APPROACH

Photo by Samy Rakotoniaina

Overview

Community health volunteers (CHVs) play a critical role in providing community-based primary health care, especially to rural populations who live more than five km from a health facility.[1] In Madagascar, there are about 17,000 CHVs supported by USAID, and most of them are women.[2] Guided by the national community health policy, CHVs are selected by their communities. They are trained and supported by the nearest health center and USAID Mikolo projects to provide integrated community case management (iCCM) treatment (diarrhea, malaria, and pneumonia); short-acting family planning (FP) methods (Pilplan, condoms, cycle beads, DepoProvera); and water, sanitation, and hygiene (WASH), nutrition, and health promotional activities. Nationally, CHVs cover about 1,500 communes, or 9.5 million people – over 40% of Madagascar's population.[3]

During its first year (2013-14), the USAID Mikolo Project supported 4,489 CHVs in 375 communes. Fifty-one percent offered only child health services, 34% offered only maternal health services, and 15% offered both (i.e. they were polyvalent). By mid-2016, the project was supporting a total of 6,694 CHVs in 506 communes and 31% were polyvalent (Table 1).

While Madagascar's diverse landscape and dispersed rural population pose many difficulties to ensuring service coverage, assuring the quality of CHV services has been

1. Haines et al, Lancet 2007.
2. USAID/Madagascar and Community Health Volunteers: Working in Partnership to Achieve Health Goals. 2015
3. Smith, S. C., et al. 2013. "Community Health Volunteer Program Functionality and Performance in Madagascar: A Synthesis of Qualitative and Quantitative Assessments." Research and Evaluation Report. University Research Co., LLC (URC), Bethesda, Maryland

THE USAID MIKOLO PROJECT increases access to and availability of community-based primary health care, especially for women of reproductive age, children under age five, and infants living in remote areas in Madagascar. Implemented by Management Sciences for Health (MSH), with partners *Action Socio-sanitaire Organisation Secours*, Catholic Relief Services, *Institut Technologique de l'Education et du Management,* and Overseas Strategic Consulting, Ltd., the project is aligned with Madagascar's national community health policy and specifically focuses on reproductive health; family planning; maternal, newborn, and child health; and malaria prevention and care. The five-year project serves an estimated 4.6 million people who live more than five kilometers from a health facility in 8 of Madagascar's 22 regions, 42 districts, and 506 communes.

The USAID Mikolo Project supports the Ministry of Public Health by training and supporting community health volunteers to support a continuum of care under the supervision of the local health center. The community-based delivery of the service package they offer is endorsed by the World Health Organization and has been shown to be an effective way to address shortages of human resources without compromising the quality of care.

an even bigger challenge.[4] One evaluation, conducted by USAID Madagascar, showed that only 49% of CHVs were offering FP in accordance with national standards and only 53% of children under the age of five were correctly treated for diarrhea, malaria, or acute respiratory infections.[5] Factors that contributed to poor service quality included a lack of or insufficient training and supervisory visits – often related to acute staff shortages at health centers. The absence of effective and sustainable quality control and ongoing capacity-building to improve CHV performance is not only demotivating and isolating for CHVs but potentially harmful for women and children receiving poor-quality services.

To address these issues, the USAID Mikolo Project created a new approach to assure, improve, and sustain the quality of community-based health services. This technical brief describes the Mikolo approach and assesses its impact on CHV performance between 2014 and 2016.

4. ibid
5. Agarwal, A et al. 2013. "Evaluation of the Quality of Community-Based Integrated Management of Childhood Illness and Reproductive Health Programs in Madagascar." USAID/Madagascar, Antananarivo, February 2013

Table 1: Number and type of CHVs supported by the USAID Mikolo Project

CHVs supported by USAID Mikolo			
	Initial 375 communes	Additional 131 communes	Total 506 communes
Total number of CHVs	5,045	1,649	6,694
Polyvalent	1,884	192	2,076
Maternal health only	1,437	654	2,091
Child health only	1,724	803	2,527

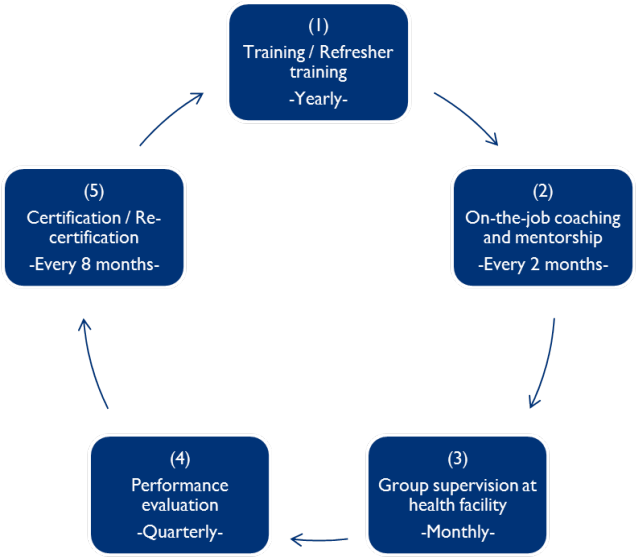
The USAID Mikolo approach

The USAID Mikolo Project quality assurance / quality improvement approach included five key activities (Figure 1):

1. Formal training or refresher training every year
2. On-the-job coaching and mentorship once every two months
3. Monthly performance monitoring and group supervision at the health facility
4. Standards-based competency evaluation every quarter
5. Annual certification or re-certification every eight months

Training and monthly group supervisions at the health facility were part of the standard practice prior to USAID Mikolo's intervention. In addition, the project provided job aids, equipment, and supplies to each CHV as well as an initial stock of products and medicines. In previous years, CHVs had received training and job aids, equipment, and supplies, and had been meeting for quarterly group supervision at

Figure 1: USAID Mikolo's quality assurance / quality improvement approach for CHV service delivery



the health facility. In partnership with the Ministry of Public Health (MOPH), Mikolo also developed algorithms to assist CHVs to systematically follow each step for service delivery according to national standards.

Since its inception, USAID Mikolo provided refresher training for all 5,045 existing CHVs and initial training for 1,649 new CHVs. Training was based on the national CHV training curriculum. Training included both theory and practice on maternal and child health, depending on the CHV's previous training and work focus. However, a major project goal was to ensure quality service provision. Rather than simply cross-training the CHVs, the USAID Mikolo Project tied cross-training to CHV performance and professional development.

The project introduced a standards-based performance evaluation which included both a theoretical test of the CHV's knowledge and understanding of the work and an assessment of the volunteer's practices. The CHV evaluation was conducted quarterly and assessed the degree to which CHV knowledge and practices complied with national standards. A CHV who complied at least 80% at the second evaluation qualified for cross-training. It is important to note that performance was linked not only to the quality of clinical service delivery but also took into account the timeliness and completeness of monthly data reporting, data quality, and management of essential

Table 2. : Mikolo categorization of CHVs based on performance evaluation

CHV Level	Performance evaluation criteria	Certification or re-certification as polyvalent CHV
0	CHV did not submit monthly activity report to the health center for >2 months	No
1	CHV achieved a performance evaluation score <80%	No but cross-trained
2	CHV achieved a performance evaluation score >80%	Yes
3	CHV achieved a performance evaluation score >80% on 2 consecutive evaluations	Yes
4	CHV achieved a performance evaluation score >80% on 4 consecutive evaluations	Yes + peer supervisor

Photo by Samy Rakotoniaina

medicines and commodities.

The standards-based evaluations were introduced in 2014, and implemented every six months. Based on the results, CHVs were categorized by performance level (Table 2), with the highest level (level 4) reserved for those CHVs who attained a compliance score of 80% or higher on four consecutive evaluations. Level 4 CHVs qualified to become CHV peer supervisors.

Peer supervision reduces dependence on traditional on-site supervision by a health worker from a project or health facility and has worked for community health workers in several low-income countries.[6] Because CHVs serve remote areas, frequency and quality of on-the-job supervision are a challenge, yet essential to assure CHV performance and quality of services. USAID Mikolo's peer supervision was a strategy to both increase the frequency by which other CHVs were supervised and supported to at least once a month, and improve their performance. By promoting well-performing CHVs to peer supervisors, the USAID Mikolo model also offered a performance incentive and career pathway.

In addition to training and performance evaluation

6. Hill Z et al. Supervising Community Health Workers in Low-Income Countries – A Review of Impact and Implementation Issues. Glob Health Action 2014, 7: 24085 http://dx.doi.org/10.3402/gha.v7.24085

USAID MIKOLO PACKAGE OF INTERVENTIONS FOR CHV PERFORMANCE

Standards-based competency evaluations of individual CHVs, linked to certification, re-certification, and recognition every six months

Routine supportive supervision:

- Monthly on-site supervision of CHV by CHV peer supervisor or Mikolo technical assistant
- Monthly on-site supervision of CHV peer supervisor by Mikolo technical assistant (will be piloted in 2017)
- Monthly group supervisions at health facility led by the head of the health center
- Quarterly supportive supervision by Mikolo technical assistants at select sites
- Quarterly NGO review meetings with MIKOLO regional project coordinator and M&E advisor

Formal training and refresher training of CHVs in maternal health (MH)/FP services; child health services; and cross-training tied to performance and certification as peer supervisors

linked to peer supervisor certification, the USAID Mikolo package of interventions for CHV performance improvement included supervision every two months by USAID Mikolo technical assistants to coach and mentor each CHV on the job. The project also supported monthly group supervision meetings between CHVs, the head of the health center, the project technical assistants, and the community health committee at the health facility as well as targeted quarterly supervision of select CHVs. Finally, the project provided technical support and capacity-building to the head of the health center through quarterly review meetings focused on CHV service quality improvement and assurance.

To monitor and assess the progress of implementing this new quality improvement approach, the project tracked its activities through its routine monitoring and evaluation system and systematically collected data from the performance evaluations. This data was inputted in MS Excel software and analyzed using simple frequencies, cross-tabulations, and the x^2 test, which compares statistical differences.

Results

From October 2014 to April 2015 (FY15), USAID Mikolo introduced its performance improvement package of five activities in 375 communes. After the first six months, the project assessed 2,154 CHVs offering MH/FP and 2,909 CHVs offering iCCM for compliance with national standards. Among the CHVs offering MH/FP, 1,462 (68%) achieved a compliance score of 80% or higher for FP, compared to 49% at baseline ($p < 0.002$). Among iCCM CHVs, 1,979 (68%) achieved a compliance score of 80% or higher for iCCM, compared to 60% at baseline ($p < 0.02$). All CHVs who achieved at least 80% were cross-trained to become polyvalent.

In May 2015, the project expanded its coverage to an additional 131 communes, bringing the total to 506. Since then, USAID Mikolo conducted another three evaluations of CHV compliance with national standards.

Tables 3a and 3b show the significance levels as tested by the chi square in increases in the proportions of CHVs scoring 80% or more on FP and iCCM in, respectively, the original 375 communes and the additional 131 communes, over time. Figure 2 shows the results of these evaluations for both FP and iCCM in the original communes while

Table 3a: Significance levels as tested by the chi square in increases in the proportions of CHVs scoring 80% or more on FP and iCCM in the original 375 communes

CHV assessment			
CHVs	1st evaluation	2nd evaluation	3rd evaluation
Number evaluated for FP	2,536	2,801	2,586
Proportion with FP performance score > 80%	50%	59% ($p < 0.01$)	68% ($p < 0.0001$)
Number evaluated for iCCM	3,005	3,330	2,933
Proportion with iCCM performance score > 80%	54%	61% ($p < 0.01$)	74% ($p < 0.0001$)

Table 3b: Significance levels as tested by the chi square in increases in the proportions of CHVs scoring 80% or more on FP and iCCM in an additional 131 communes

CHV assessment			
CHVs	1st evaluation	2nd evaluation	3rd evaluation
Number evaluated for FP	637	636	627
Proportion with FP performance score > 80%	33%	58% ($p < 0.0001$)	61% ($p < 0.0001$)
Number evaluated for iCCM	739	744	654
Proportion with iCCM performance score > 80%	28%	55% ($p < 0.00001$)	61% ($p < 0.02$)

Figure 2. Proportion of CHVs complying with national standards in 375 communes

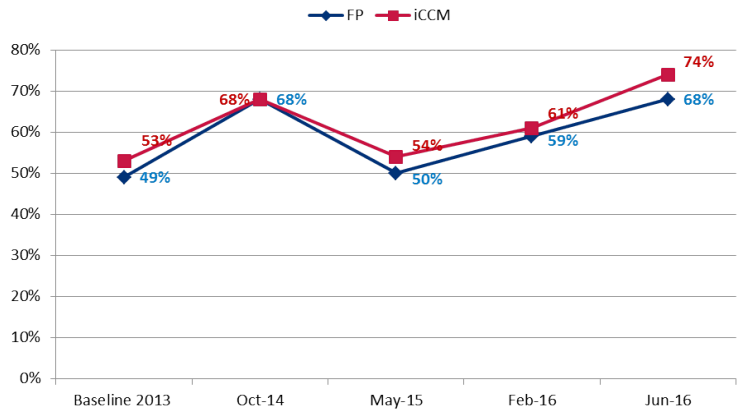


Figure 3a: Compliance with FP standards in original and new communes

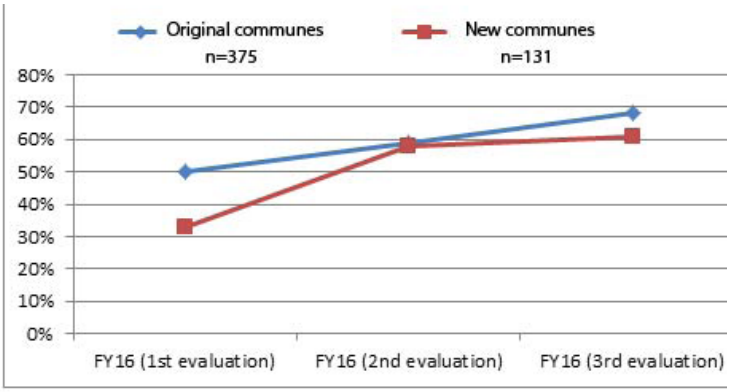


Figure 3b: Compliance with iCCM standards in original and new communes

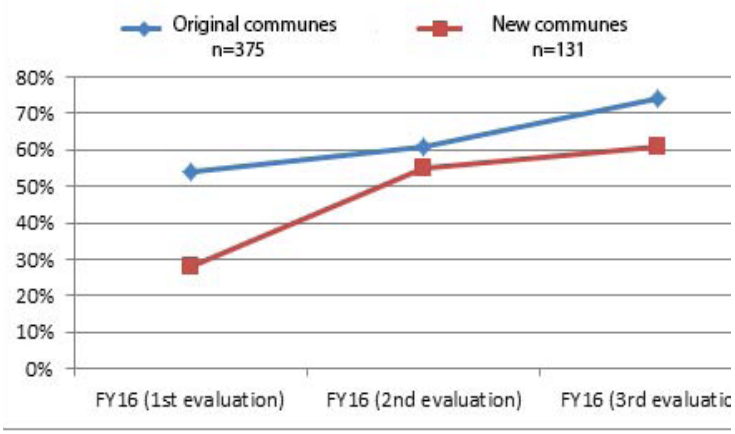


Figure 3a compares the performance of CHVs in the 131 new communes to that of CHVs in the 375 communes that had been earlier supported by the project.

Based on the results of two consecutive evaluations, the project certified 3,181 out of 5,315 (60%) CHVs in 2016. During the second cycle, a total of 3,842 out of 6,694 (57%) CHVs qualified for certification. A total of 2,934 CHVs were certified as polyvalent

Challenges

While the USAID Mikolo Project obtained full backing from and collaborated with the MOPH to implement its innovative quality improvement approach, the MOPH had begun revising its community health policy, including its policy regarding engaging CHVs as peer supervisors while the new approach was being implemented. Therefore, the MOPH has requested that the project hold off appointing qualifying CHVs as peer supervisors. This last step will be implemented with the MOPH in 2017.

Without the full implementation of the model, the period of observation has been too short to draw firm conclusions. Nevertheless, the data are indicative of its potential.

The success of any community-based model of service delivery largely depends on its quality, and service quality is directly associated with the ability of agents to connect clients to a continuum of care that links them with higher-level health facilities. Furthermore, service quality is also strongly associated with the performance of the CHV supervisors, who are the heads of the health centers in Madagascar. However, the ability of the country's basic health centers to manage referred clients remains weak. Many health facilities continue to be under-staffed; are impacted by stock-outs of essential medicines, commodities, and supplies; and many are poorly managed. Often, the head of the health center is the only service provider at the facility and therefore cannot adequately fulfill tasks and rarely conducts on-site CHV supervisions.

In this context, a model of peer supervision has several advantages. First, it alleviates the burden on already under-staffed health facilities. Second, peer supervision costs significantly less than on-the-job supervision conducted by professional medical staff who need to travel greater distances. Third, as the main focus of CHV services is on

"WITHOUT THE CONTRIBUTION of the CHVs in the health system, our health center would have enormous difficulties in handling the work. These volunteers also spread information in isolated communities and sensitize the population on various important topics, including vaccination."
- Dr Harimbolamena Rakotonoel, head of the health center in the rural commune of d'Anjeva Gara in Analamanga Region

Photo by Samy Rakotoniaina

prevention and health promotion, peer supervision will reinforce this focus while supporting the CHVs in case management. This reduces the need for referring clients to the health center and thus helps reduce the patient load.

Finally, the quality of data recording, collection, and reporting remains variable, partly due to CHV capacity and partly related to the capacity of local NGOs that support the CHVs. Strengthening the capacity of local institutions, including NGOs and health centers, in their role to support CHVs is a key objective of USAID Mikolo.

Lessons learned

The data, while preliminary, suggests that USAID Mikolo's innovations regarding quality assurance of community-based service delivery in Madagascar contribute significantly to CHV performance improvement. Repeat, standards-based performance evaluations tied to peer supervisor certification appeared to improve the quality of community-based service delivery by increasing coverage and frequency of supervision and complementing traditional supportive supervision efforts. In addition, integrating personal professional growth of CHVs into the USAID Mikolo approach created performance incentives as well as a career path for CHVs, which may constitute an additional motivation for CHVs to become polyvalent and comply with national standards while delivering services.

However, to ensure the continuum of care is functioning well, the USAID Mikolo approach to improving the quality of CHV services must be accompanied by a minimum support package that targets not only the CHV peer supervisors but also the heads of the health centers. Such a support package must focus on strengthening the overall management of community health, including strengthening of the referral-counter referral system, improving the quality of services offered at the health center, ensuring the availability and competence of adequate numbers of health center staff, reducing stock-outs of essential medicines and commodities, and strengthening the management of community health activities. These include monthly group meetings, ongoing capacity-development, review of health data, and regular updates of population data for the catchment area of the health center and respective CHVs.

Photo by Samy Rakotoniaina

Way forward

To improve the health status of Malagasy families and communities and achieve the country's sustainable development goals, the Government of Madagascar continues to rebuild its health system and services and work towards universal health coverage. However, this process will take time, and until then the role of CHVs in bringing much needed health care to the people will remain critical. Assuring the quality of the health services will continue to be just as essential as expanding access to them, because people will only be satisfied with the services when they meet their needs. Satisfaction with services will stimulate and sustain demand for and use of primary health care services, and can lead to community engagement and participation to ensure that health services remain available.

As such, the USAID Mikolo Project quality assurance and improvement approach is a critical component of sustainable health service availability and uptake and to achieving universal health coverage. The project continues to implement a quality improvement approach and will continue to monitor its efficacy and sustainability through both routine data collection and an independent evaluation.

This brief was prepared by Hajamamy Rakotoarisoa, Andry Tsarafihavy, Delord Ramiaramanana, Elke Konings, Samy Rakotoniaina, Aishling Thurow, and Cindy Shiner.

Additional information can be obtained from: Management Sciences for Health, USAID Mikolo
Immeuble Fitaratra au 3è étage
Rue Ravoninahitriniarivo, Ankorondrano
101 Antananarivo - Madagascar
+(261) 20 22 481 91, +(261) 34 42 805 81
www.msh.org

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