USAID COMMUNITY CAPACITY FOR HEALTH PROGRAM

Community-Based Programs Effectively Address Child Health and Nutrition Priorities in Madagascar


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PROGRAM SUMMARY

The USAID Community Capacity for Health Program—known in Madagascar as Mahefa Miaraka—is a five-year (2016–2021) community-based integrated health program funded by the United States Agency for International Development (USAID). The Program is a collaborative effort among the Ministry of Public Health (MOPH), USAID, and JSI Research & Training Institute, Inc. (JSI). Mahefa Miaraka provides tools and capacity-building training to approximately 10,000 community health volunteers (CHVs) who provide basic maternal health, child health, and family planning services to their local communities. The Program also works with national and local government stakeholders to strengthen the health sector and health policies. Mahefa Miaraka operates in seven regions of Madagascar, covering 4,708 villages with a total population of 6.6 million people, or 28 percent of the country's population.

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OVERVIEW

A child under five (CU5) can progress from uncomplicated to severe illness within a few hours. In Madagascar, malaria, diarrhea, pneumonia, and underlying malnutrition are among the leading causes of illness and death. The country has seen reductions in child deaths, from 93 to 51 deaths per 1,000 live births during the period 2003 to 2019. Infant deaths have decreased from 60 to 37 deaths per 1,000 live births during the same period.[1,2]

The delivery of quality child health services faces several challenges in Madagascar, including geographic access to health care, weak supply chains, poverty, and the low number of qualified medical and health personnel available to a growing population. Moreover, approximately 40 percent of Madagascar's population live five or more kilometers from a health center. Twenty percent live in very hard to reach areas and lack access to transportation. The ratios of medical and paramedical staff per population are among the lowest on the African continent, with staff concentrated in urban areas and certain regions of the country.[3] Nationally, among children with diarrhea and malaria, treatment by a qualified health provider was sought for 38 percent and 50 percent of cases, respectively. More than 26 percent of children in the country are underweight-for-age and 41 percent are stunted.[4]

To overcome these challenges and address the gaps in health service provision for vulnerable CU5, Madagascar's MOPH has prioritized community-based health service delivery for CU5 close to their homes through the use of CHVs selected by community members, and trained and supervised by the local health center. Employing a focus on extending services to remote populations through community-based health care for more than twenty years,[5] the MOPH set a national goal to improve the health of its communities through social and health development programs and services, and to achieve optimal access to an integrated package of health promotion, prevention, treatment, rehabilitation, emergency services, and disease surveillance. Madagascar's community-based Integrated Management of Childhood Illness (c-IMCI) provides health prevention and treatment services for CU5 close to the homes of remote and economically vulnerable populations. The extension of health service delivery to the community level through CHVs has increased population access to quality services, notably for vulnerable groups.[6]

1 The World Bank Data. Mortality rate, under-5 (per 1,000 live births) – Madagascar. Retrieved March 30, 2021, from https://data.worldbank.org/indicator/SH.DYN.MORT?locations=MG.
2 The World Bank Data. Mortality rate, infant (per 1,000 live births) – Madagascar. Retrieved March 30, 2021, from https://data.worldbank.org/indicator/SP.DYN.IMRT.IN.
3 MOPH. National Strategic Plan to Reinforce Community Health 2019–2030.
4 Institut National de la Statistique (INSTAT) and UNICEF. (2019). Enquête par Grappes à Indicateurs Multiples-MICS Madagascar, 2018, Rapport Final. Antananarivo, Madagascar: INSTAT and UNICEF.
5 JSI Research & Training Institute, Inc. (n.d.). The Champion Communes Approach. Boston, MA: JSI Research & Training Institute, Inc. https://publications.jsi.com/JSIInternet/Inc/Common/_download_pub.cfm?id=16890&lid=3.
6 MOPH (2017). Madagascar National Community Health Policy.

KEY ACTIVITIES

Enhancing CHV c-IMCI skills and reporting. Following national policy shifts toward universal coverage, the Program assisted the MOPH to update national community health policy and strategy documents, including the CHV activity package,[7] the PNSC, and the PSNRSC. The Program supported health center heads to train CHVs and officially certify for service delivery those CHVs who attained the required skills level and competencies needed to carry out c-IMCI activities. The Program strengthened the relationship between CHVs and health center staff through monthly health center-led meetings with CHVs to refresh their technical and communication skills, review and finalize monthly reports, resupply child health commodities, and replenish client registers and tools. Mahefa Miaraka assisted health centers to ensure high CHV attendance and effective data reporting so that monthly meetings provided opportunities for greater coordination and improved quality of activities among the CHVs.

Strengthening community nutritional screening for CU5. The Program supported health center heads to train CHVs on CU5 nutritional screening. Conducted during monthly growth monitoring sessions, screening was often combined with health center vaccination outreach. During sick child visits at the toby, CHVs monitored the nutritional status of children, provided counseling to caretakers on optimal feeding practices based on locally available foods, and referred malnourished children for treatment and follow-up at the health center. Growth monitoring sessions provided an important opportunity for CHVs to provide health education on nutrition to caretakers and link the promotion of optimal nutrition practices through follow-up with households via the Model and Mentor Families approach.

Equipping CHVs with the necessary management tools. The Program provided CHVs with social and behavior change materials, job aids, stock management tools, and data collection tools to support the provision of quality c-IMCI services, growth monitoring, and nutrition counseling for uncomplicated malaria, pneumonia, and diarrhea among CU5. CHVs identified signs of severe illness necessitating referral to their catchment area health center and followed up with CU5 returning to the community through counter-referrals after completion of their referred care.

7 MOH. National Strategic Plan to Reinforce Community Health 2019–2030.

Strengthening supply chain management. To reinforce the availability of quality-assured malaria rapid diagnostic tests, artemisinin-based combination therapy, packaged oral rehydration salts, zinc, pediatric dispersible amoxicillin, and artesunate suppositories, Mahefa Miaraka collaborated with the USAID IMPACT Project, and the MOPH Directorate of Pharmacies and Laboratories to signal CHV commodity stockouts while working at the health center level to advocate for CHV resupply. To better manage commodities and reduce stockouts in communities, health center heads supported by the Program trained nearly all CHVs on commodity management and reporting during monthly health center meetings.

Enabling the development and ownership of community structures in support of health. To increase involvement with and ownership of community health programs, Mahefa Miaraka built management capacity for community health coordination committees at fokontany (community), commune, district, and regional levels. In line with the PNSC, the Program worked with health committees at the community and commune levels through the COSAN and Commune Commission for Health Development (CCDS, Commission Communale de Développement de la Santé) to support the identification and nomination of CHVs by the community. Additionally, the Program supported the CCDS community score card to gauge client satisfaction with services they received from CHVs.

Promoting healthy behaviors and social and behavior change. To increase demand for CU5 services and the adoption of healthy behaviors, Mahefa Miaraka supported CHVs to promote disease prevention, health seeking behavior, and nutrition through CHV household visits, use of the Model and Mentor Families approach, community education sessions, local radio broadcasts, high visibility public events, and the distribution of child health cards.

Innovations. Since 2016, the Program has supported planning for emergency evacuation and development of emergency health transport measures. These activities are covered in a separate technical brief. Since 2019, Mahefa Miaraka has contributed to the introduction of artesunate suppositories at the community level as pre-referral treatment for severe malaria cases in CU5. Specifically, the Program supported cascade training from the regional to the community health worker level in 19 initial districts. Scale-up to the remaining 14 districts was carried out at the end of 2020 and in early 2021.

APPROACH

As a trusted partner of the MOPH, Mahefa Miaraka built the skills of central, regional, district, and commune-level health personnel to increase their capacity to support the CHVs. The CHVs delivered quality low-cost or free health prevention and treatment services for CU5, including growth monitoring, nutritional counseling, and referral of malnourished and sick children with complications or danger signs, to remote and economically vulnerable populations.

Nationally, Mahefa Miaraka provided technical support for the development and revision of the national community health policy (PNSC, *Politique Nationale de Santé Communautaire*) and the National Strategic Plan on Strengthening Community Health (PSNRSC, *Plan Stratégique National de Renforcement de la Santé Communautaire*). The Program also provided training and implementation support to CHVs to strengthen the quality and sustainability of c-IMCI services for CU5 in seven regions. With the support of village health committees (COSAN, *comités de santé*), CHVs provided services in health huts (called toby) to routinely assess, classify, treat, and refer CU5 for three major illnesses: malaria, pneumonia, and diarrhea. The CHVs also provided referral and care for infants less than two months of age, including chlorhexidine for umbilical cord care, and the administration of pre-referral rectal artesunate suppositories for children presenting with severe malaria symptoms. When CU5 presented with more severe illness, including possible severe bacterial infection in neonates, the CHVs referred them to health facilities. The Program supported investments in planning for health and emergency transport measures at the community level and counter-referral for CHVs to follow up with children after they returned to their communities. To complement the c-IMCI approach, CHVs provided monthly growth monitoring, including child weighing; measurement of the mid-upper arm circumference; nutrition counseling during home visits; sick child consultations at the *toby*; and vaccination sessions, in coordination with health centers.

FIGURE 1. PERCENTAGE OF CASES TREATED BY CHVs OF TOTAL CASES TREATED BY CHVs AND HEALTH CENTER PERSONNEL

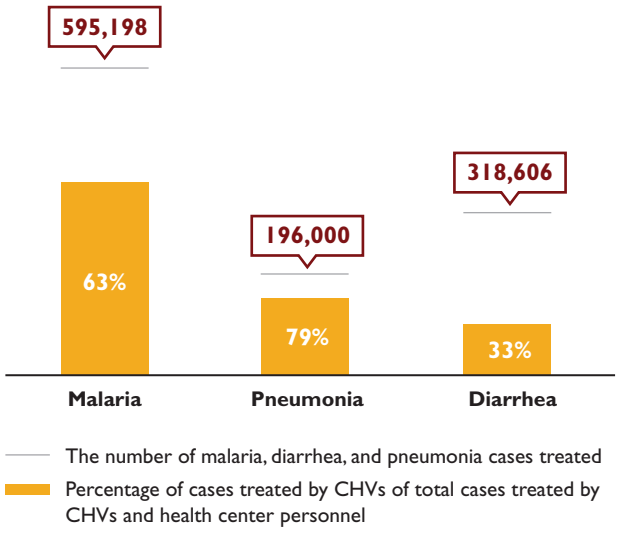
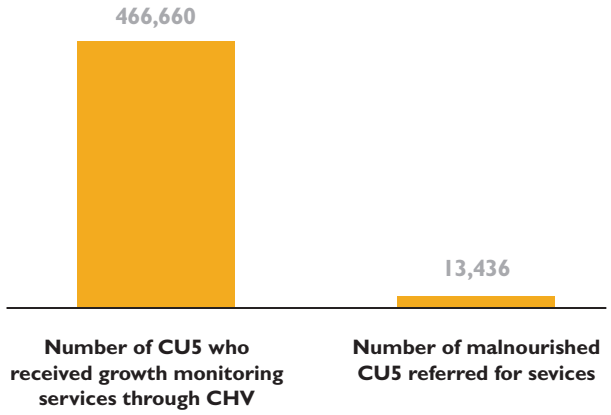


FIGURE 2. NUMBER OF CU5 WHO RECEIVED GROWTH MONITORING SERVICES THROUGH CHVs AND THE NUMBER OF MALNOURISHED CU5 REFERRED FOR SERVICES



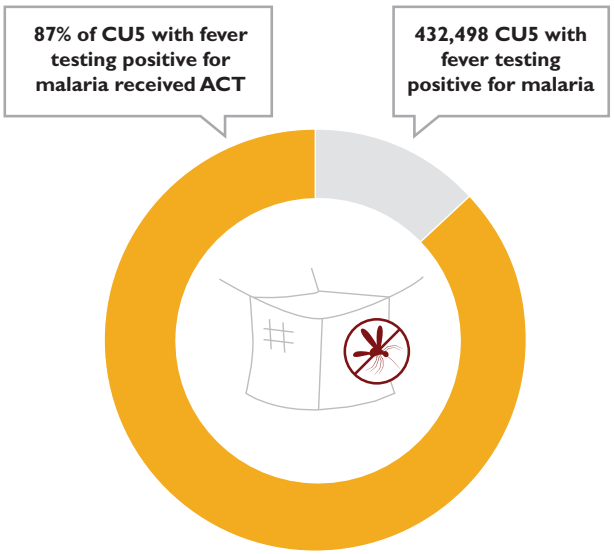
RESULTS

CHVs receiving Program-supported training and supervision **provided quality c-IMCI services to CU5 in more than 4,700 communities**, including treatment of **377,262 cases of malaria (representing 63 percent of all malaria cases treated in Program-supported regions); 154,114 cases of suspected pneumonia (79 percent of all cases); and 106,005 cases of diarrhea (33 percent of all cases)**. As shown in Figure 1, Program-supported CHVs treated the majority of all malaria and pneumonia cases seen in the community and at health centers. CHVs also **provided growth monitoring services to 466,660 children and 13,436 malnourished children were referred for services** (Figure 3). Among CU5 with a positive malaria rapid diagnostic test (RDT), **87 percent received artemisinin-based combination therapy (ACT)** over the life of the Program (Figure 2).

CHVs referred 30,490 CU5 with danger signs to health centers. During counter-referral visits, CHVs followed up with returning caregivers to ensure that they understood and were following through on treatment plans while reinforcing preventive measures.

Trained 9,499 health agents in the provision of c-IMCI and 8,470 in the provision of nutrition services for CU5. Using a cascade training approach, Mahefa Miaraka supported health center heads to train CHVs in their catchment areas using the national c-IMCI

FIGURE 3. PROPORTION OF CU5 WITH FEVER TESTING POSITIVE FOR MALARIA WHO RECEIVED ACT

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training curriculum to support practical internships for CHVs and skills certification at the health center.

More than 8,477 CHVs, 922 health center staff, 140 district staff, and 20 regional staff were trained on the use of artesunate suppositories for the pre-referral of suspected cases of severe malaria.

MOPH personnel conducted more than 13,700 supervision visits with CHVs. To promote ongoing service quality, the Program supported health center heads to conduct formative follow-up, ongoing training, and annual refresher training as part of annual district and health center workplans.

On average in 2020, 85 percent of CHVs provided monthly case management and activity reports and 76 percent of CHVs attend monthly meetings at the health center in their catchment area to refresh their skills, finalize monthly reporting, and resupply health commodity reporting and management tools.

CHALLENGES

Stockouts of amoxicillin have ranged from 35 percent to 62 percent, and stockouts of diarrhea treatment kits, primarily zinc, from 31 percent to 53 percent during the Program period. Oral rehydration salts (ORS), zinc, and amoxicillin were supplied through the social marketing circuit supported by the USAID IMPACT Project and were available at supply points in certain communities. Malaria commodities were distributed through the public health supply chain, from district warehouses to health centers and to CHVs. From central to district levels, the challenges included incorrect calculation of consumption and under fulfillment of quantities ordered, which led to rationing of stock by health centers. Health center staff consequently faced challenges providing sufficient supplies to CHVs to meet community needs and to cover the needs of patients seen at the health center. Because malaria commodities are available at health centers, CHVs generally had more access to resupply from health centers, unlike the case for ORS, zinc, and amoxicillin, whose distribution points were often located further away than the local health center.

Weather conditions limited population access to health centers, with only 54 percent of health centers accessible during the full 12 months of the year.[8] Flooding during the rainy season (November to March) often prevented travel between the fokontany and the health center.

Insecurity in Boeny, Melaky, and Menabe regions prevented the arrival of sick children at the toby level. In some areas, thieves (Daholo) have raided villages, which caused dislocation or even the complete relocation or dispersal of communities, thereby impeding the functioning of health centers and the ability of CHVs to resupply commodities and attend monthly meetings.

8 MOPH. National Strategic Plan to Reinforce Community Health 2019–2030.

RECOMMENDATIONS

Support fundamental interventions for the quality and sustainability of community case management and nutrition activities. This involves providing resources for continued monthly meetings with CHVs at the health center, including a budget for health center staff to continue the supervision of CHVs; and pairing newly recruited CHVs with experienced CHVs for their initial orientation and on-the-job learning.

Continue to include community needs in the MOPH's national quantification estimates for commodities for CU5. To this end, the Program has supported building CHV and health center staff capabilities in supply management, streamlining stock management tools, advocacy for health centers to consider CHV needs in their reporting and requisition requests, and collaboration. Health centers also need to order and receive sufficient quantities of commodities—taking into account the needs at the community level—and clearly labeling separate CHV and health center requisitions.

To improve health commodity availability **the quantification of CHV commodity needs should be included in the commodity requisition form** during CHV monthly meetings.

To strengthen the use of community monthly reports through Madagascar's District Health Information Software, **the Direction of Health Monitoring, Disease Control, and Response should be further supported to reinforce district health team and district data managers'** data collection, entry, and submission of CHV monthly reports to the national level.

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