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Maternal and Child
Survival Program

MCSP Mozambique Program Brief

Malaria

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Goal

The Maternal and Child Survival Program (MCSP) in Mozambique strengthened national, provincial, and district health systems in Nampula, Zambezia, and Sofala provinces to advance evidence-based policies and successful approaches for preventing malaria and treating pregnant women and children under 5 years old.

Program Approaches

Mozambique made significant progress controlling malaria in recent years, but it remains the major cause of morbidity and mortality and is responsible for 29% of all deaths and 42% of deaths in children under 5 years old¹. Malaria also contributes to maternal anemia, stillbirth, premature birth, and neonatal mortality. Malaria-related anemia in pregnant women is a risk factor for maternal complications such as postpartum hemorrhage. According to a 2012 National Needs Assessment, malaria (27%) is the main cause of indirect institutional maternal deaths².



Zaida Jaime, a Community Development Agent (CDA), teaches a mother how to put up a mosquito net in Intinquane village in Nampula. Photo: Kate Holt/MCSP

To address these issues, MCSP and the Ministry of Health (MOH) worked in Nampula, Zambezia, and Sofala provinces to improve malaria prevention and treatment efforts and to increase access to high-quality fever case management and malaria prevention in antenatal services using the following approaches:

- **Strengthened health system for malaria prevention and treatment:** MCSP worked at the national level to review, develop, and update malaria policies, strategies, guidelines, and tools. The Program supported the development of sustainable training and supervision systems, and, in partnership with MalariaCare, supported the revision of the national supervision tools for malaria. At the provincial level, MCSP worked with the Provincial Health Directorates in Zambezia, Nampula, and Sofala to revitalize malaria coordination groups and held regular malaria partner meetings to improve coordination, share updated policies and work plans, and reduce duplication of efforts.
- **Improved malaria prevention:** In partnership with the National Malaria Control Program (NMCP) and the President's Malaria Initiative (PMI), MCSP provided technical assistance and supported activities to improve prevention of malaria in pregnancy (MiP). MCSP trained 2,160 providers in MiP, including initiating intermittent preventive treatment of malaria (IPTp) with sulfadoxine-pyrimethamine (SP) at 13 weeks per WHO recommendations, and distributing Long-Lasting Insecticidal Nets (LLINs) during antenatal care (ANC) visits. MCSP provided mentoring to health

¹ Post-Census Mortality Survey 2008

² Ministério de Saúde. Avaliação das Necessidades de Serviços de Cuidados Obstétricos e Neonatais de Emergência em Moçambique, 2012. Maputo, Mozambique 2014.

workers, including maternal and child health nurses, to both reinforce their ability to estimate gestational age for early initiation of IPTp and provide high-quality counseling on the use of LLINs.

- **Increased proper malaria diagnosis and treatment:** MCSP worked with the MOH to strengthen the malaria diagnostic skills and case management capacity of MCSP-supported providers. MCSP trained 2,372 providers in appropriate diagnosis and treatment using rapid diagnostic tests (RDTs) and Artemisinin-based Combination Therapy (ACT) and provided mentoring and supportive supervision, per the revised national guidelines. Although MCSP did not procure malaria commodities, the Program helped ensure that RDTs and medications were available at health facilities by helping to monitor stock levels and providing forecasting support, as well as ad hoc assistance transporting supplies to facilities experiencing emergency stock-outs. MCSP worked with PMI and United States Agency for International Development (USAID) supply chain partners, through the Quantification Technical Working Group (TWG), to address supply chain problems at the facility level and improve supervision of health care providers to roll out the district Logistics Management Information System. MCSP also trained health staff to conduct malaria death audit reviews, improving staff's understanding of factors that led to each death, what they could have done differently, and how they approach severe cases in the future.
- **Improved quality and use of malaria data:** MCSP helped the DPS to organize provincial quarterly data review meetings with representation from program-supported districts and health facilities to present key malaria indicators and discuss the findings and trends. MCSP also integrated verification, analysis, and reconciliation of data in registers and monthly summary reports into quarterly on-site support visits to 58 health facilities in Zambezia province. This technical assistance was particularly important during the first two years of the Program, as the entire health system transitioned from the *Módulo Básico* to the District Health Information Software 2 (DHIS2). During this period of transition, the MCSP team played an important role in helping the province track and update missing district level data to enter into the new system, and ordered registers to ensure facilities did not experience stock-outs.
- **Strengthened community malaria case management:** In collaboration with PMI and UNICEF, MCSP provided technical support and supervision to 266 Community Health Workers (Elementary Polyvalent Agents/*Agentes Polivalentes Elementares* [APEs]) in Nampula, Sofala, and Zambezia provinces to diagnose and treat malaria at the community level. Supply chain partners facilitated providing RDTs and ACT kits required for community case management. In Zambezia Province, MCSP also worked with 83 APEs to improve the linkages between the community and facility-based health teams. The Program involved the APEs and supervisors in joint supervision visits to review the quality of malaria data and discuss targeting of services based on results, to review APE kits and ensure a sufficient stock of malaria commodities, and to provide technical updates to APEs and supervisors on malaria diagnosis and treatment guidelines.
- **Supported Social Behavior Change Communication (SBCC):** In 580 communities in Nampula province and 178 communities in Sofala province, MCSP supported the NMCP's SBCC activities to promote correct and consistent use of LLINs, acceptance of Indoor Residual Spraying, and awareness of the importance of prompt diagnosis, treatment, and prevention of malaria among pregnant women. These activities were key to achieving and maintaining the NMCP's goals for malaria prevention and control. SBCC messages, provided in partnership with PMI and USAID's SBCC project Health Communication Capacity Collaborative, gave community members information on the danger signs of malaria and the need to seek prompt treatment for children with fever. MCSP also supported Community Health Workers (CHWs) in completing simplified data collection forms and supported CHW supervisors with routine data quality checks and assistance interpreting and using monitoring and evaluation (M&E) data for planning and prioritization.



Photo: MCSP/Dércio Alfaca

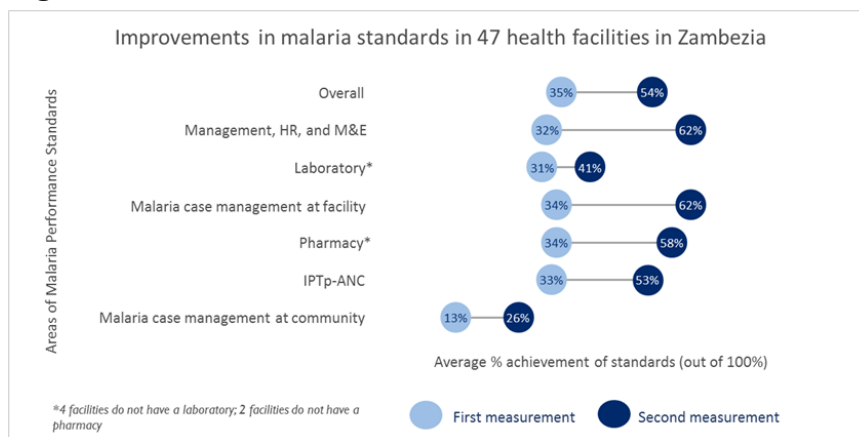
Key Results

Results

- Policies and guidelines revised:** With MCSP's support, the MOH developed the *National Malaria Strategic Plan 2017-2022*, which aims to reduce the burden of malaria in high transmission areas and sustain gains in low transmission areas, and revised the national treatment guidelines. The MOH adopted the MCSP-developed job aid on treating uncomplicated malaria among women of reproductive age based on WHO guidance, as well as parts of the toolkit to improve early and sustained uptake of IPTp, which MCSP tested in Mozambique. These documents set the standards for malaria treatment and care throughout the country and are essential training documents that guide the provision of care from provincial to facility levels.

- Quality of malaria care improved:** MCSP supported the development of MOH-approved standards for malaria services in six areas including pharmacy, management of human resources and commodities, laboratory, malaria case management, IPTp, and community case management. MCSP trained 113 providers at

Figure 1.



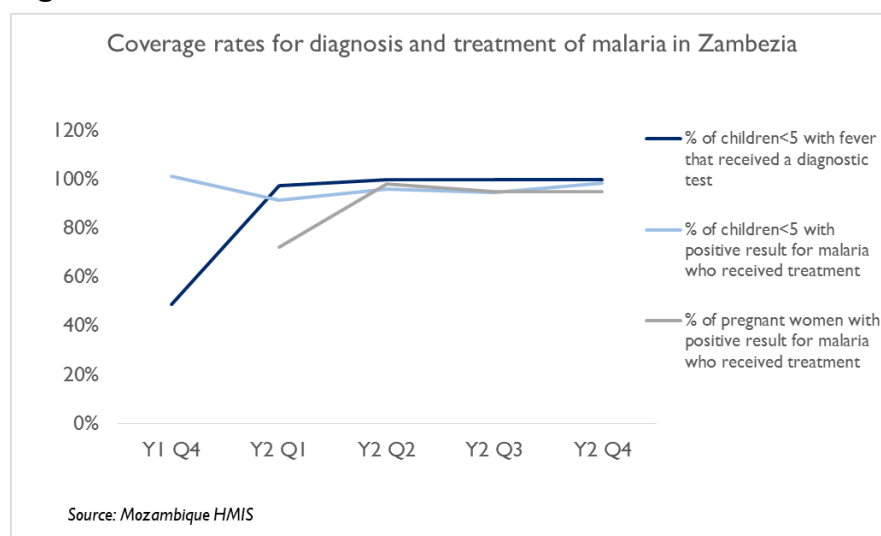
58 health facilities in Zambezia province in the Standards-Based Management and Recognition quality improvement approach using these standards. By the end of Year 2, all 58 program-supported facilities had initiated the quality improvement process. Forty-seven health facilities conducted at least a second internal measurement, of which 41 (87%) had improved their performance on malaria standards, and 27 (57%) had improved their performance against the standards by at least 50% compared with baseline. Please see Story Map: <http://arcg.is/0r5n9T>

- Data used for decision-making:** At the facility level in Zambezia, MCSP trained 389 health workers on the correct completion of malaria data collection forms and practice of data entry. At the district level, MCSP helped statistical officers to review malaria reports and reconcile errors and missing data. Decision makers now have a better appreciation of the impact of good data and the impact of inaccurate/false data entering into the system. Through this comprehensive support, the quality of malaria data in the province and the accurate reporting of patient information improved over the course of the Program. By the second year of the Program, 58 (100%) health facilities were analyzing key malaria indicators on at least a quarterly basis and identifying recommendations for improvements.
- Supervisor and provider skills updated:** MCSP built the capacity of 42 facility-level malaria focal points in Nampula and 27 focal points and trainers in Zambezia as malaria supervisors and strengthened their skills through joint supportive supervision and mentoring visits at program-supported facilities. MCSP supported the MOH to revise the malaria case management training package and trained 33 trainers in Zambezia and 31 in Nampula. MCSP supported these trainers to conduct district level training of 3,602 (2,372 in Zambezia and 1,230 in Nampula) health providers in case management, with the goal of the improved use of RDTs and treatment of cases of uncomplicated and complicated malaria, according to national guidelines. By the end of Year 2, more than 99% of children under 5 with fever had received a diagnostic test in MCSP-supported areas, 98% of children under 5 with a positive malaria diagnosis had received ACTs, and 95% of pregnant women with a positive result for malaria had received treatment. See Figure 2. Malaria testing rates for children under 5 at the 58 MCSP-supported facilities also increased by 17% in January-August 2018 compared with the same period in 2017. Most of the malaria case management training took place between January and August 2018.

Lessons Learned

- **Quality Improvement:** MCSP's previous experience with quality improvement in Mozambique indicates that the process takes time, and therefore health facilities should continue to receive support implementing malaria quality improvement activities. An important influence on malaria quality improvement is the need for early ANC

Figure 2.



and increased access to services in order to increase IPTp coverage. Availability of resources, including trained health workers, essential commodities (i.e., RDTs, SP, LLINs), and data collection and reporting tools, impacts performance against standards and key indicators.

Recommendations

- In Zambezia Province, health facility management showed strong leadership in continuing to implement the quality improvement process using performance standards, even without support of the Program. The MOH, Provincial Health Directorate, and future projects should tap into these leaders to support the expansion of quality improvement efforts into additional health facilities. Based on the experience in this province, the MOH should continue to explore pairing health facilities to conduct internal measurements on standards to introduce increased objectivity to the quality improvement process and facilitate healthy competition.
- Data discussion meetings proved to be an effective means of convening decision-makers from different levels of the health system to analyze malaria results and use data to drive programmatic decisions. As the MOH rolls out the new child health registers and improved malaria data becomes available, it will be important for implementing partners to continue support for data review meetings and analyze trends on key malaria indicators over time.
- The DPS and implementing partners should continue to strengthen linkages between community-level APEs and health facility supervisors to reinforce skills in malaria diagnosis and treatment and ensure timely referral of complicated cases of malaria.

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