Mozambique Bridge EOP Summary & Results

Geographic Implementation Areas

Provinces
- 11/11 (100%)

Districts
- 99/151 (66%)

Facilities
- CECAP: 141/1,612 (9%)
- Model Maternity Initiative: 125/1,612 (8%)

Population

Country
- 28.9 million

MCSP-supported areas
- 10.5 million

Technical Areas

Program Dates

April 30, 2015–September 30, 2015

Total Funding through Life of Project

$3,432,000

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	408
NMR (per 1,000 live births)[1]	30
U5MR (per 1,000 live births)[1]	97
TFR[2]	5.3
CPR (modern)[2]	25%
ANC4[2]	54.6%
SBA[2]	73%
IPTp2[2] IPTp3	34.2% 22.4%
DPT3[2]	81.6%
Care-seeking for fever in children U5[2]	57%
Stunting (height for age <5)[1]	43%

Sources: [1] Mozambique DHS 2011; [2] IMASIDA 2015

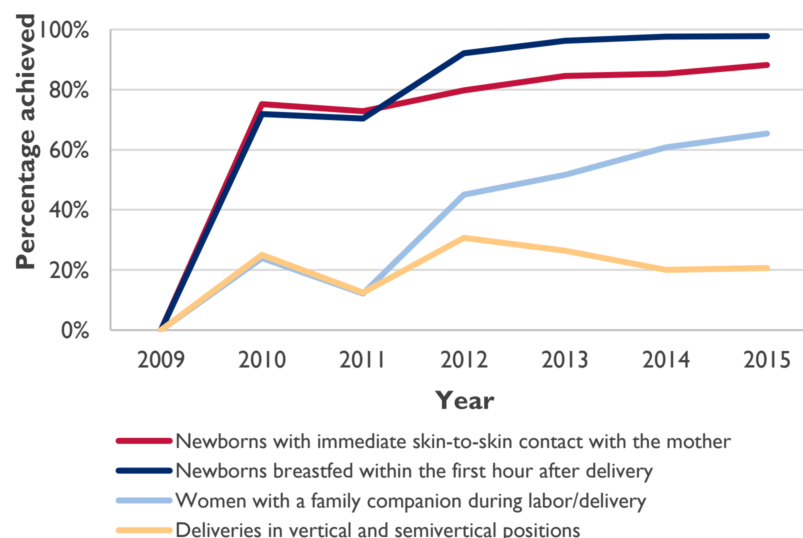
Strategic Objectives through the Life of Project

- Increase coverage of high-impact RMNCAH interventions and respectful care at the community and health facility levels to contribute to ending preventable child and maternal deaths.
- Strengthen health systems to deliver quality RMNCAH services, with an emphasis on data and human resources management, and linkages between community and facility services.
- Improve the environment for the delivery of high-impact RMNCAH interventions and respectful care through technical leadership and coordination.
- Strengthen child health in facilities implementing the Model Maternity Initiative through in-service training and IMCI management.

Highlights through the Life of Project

- Supported five health facilities to pass an MOH-led external evaluation, confirming their status as national Model Maternity facilities.
- Provided financial support and mobilized community efforts to conduct 96 mobile brigades with participation of 6,070 community members, resulting in the vaccination of 3,380 children.
- Screened 47,780 women for cervical cancer using visual inspection with acetic acid, of which 5.3% were diagnosed with a precancerous cervical lesion and 82% received treatment with cryotherapy on the same day.

Figure 1. Trends in respectful maternal and newborn care indicators*



*2015 data cover January–September of that year.

Mozambique—Bridge

Background

In Mozambique, MCSP continued crucial activities in support of the MOH's Model Maternity Initiative and National CECAP under a 5-month bridge program. These activities began under the MCHIP Associate Award, which was implemented from April 2011 to June 2015, and included support for postpartum and interval FP in line with national priorities.

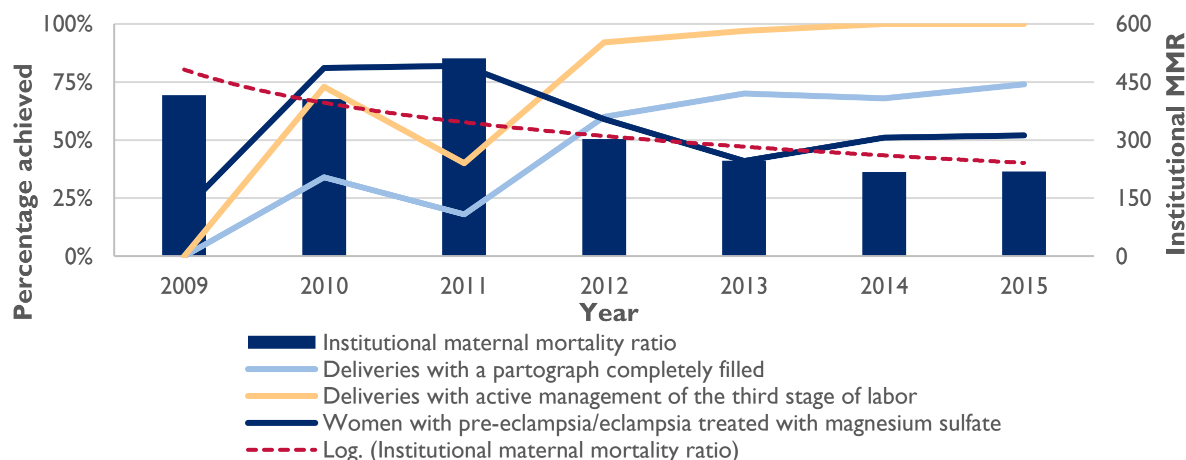
Key Accomplishments

Scaled Up Quality, High-Impact, and Respectful MNH Interventions in 125 Health Facilities

Following MCHIP, MCSP supported the ongoing scale-up of quality, high-impact, and respectful MNH interventions in 125 maternities. Five additional health facilities received and passed an MOH-led external evaluation to confirm their status as national Model Maternity facilities in recognition of their sustained performance of 80% or more in all areas of the Model Maternity Initiative performance standards, bringing the number of health facilities achieving this status to 11. Respectful MNH care practices were also expanded. Figure 1 highlights trends in selected respectful MNH indicators during the implementation of MCHIP and MCSP. During MCSP specifically, over 89% of newborns were breastfed within the first hour of delivery and had immediate skin-to-skin contact with the mother by September 2015. In addition, over 65% of women were accompanied by a companion for labor and delivery, compared to 12% in 2011.

MCSP also expanded, supported, and reinforced three high-impact interventions: completed partographs, treatment of severe PE/E with magnesium sulfate, and active management of the third stage of labor. As Figure 2 below illustrates, the institutional MMR at Model Maternity Initiative facilities declined over the course of 5 years as implementation of the three key high-impact interventions increased.[34]

Figure 2. Trends in institutional maternal mortality and selected high-impact interventions*



*2015 data cover January–September of that year.

Expanded Coverage of Fistula Repair Services

With limited access to health services in Mozambique, the prevalence of obstetric fistula is estimated to be relatively high. However, there are limited treatment services for women with fistula in the country, particularly in the provinces outside of Maputo City. MCSP supported the MOH in conducting two fistula trainings in Tete and Inhambane provinces for 33 health professionals. During these trainings, trainees helped

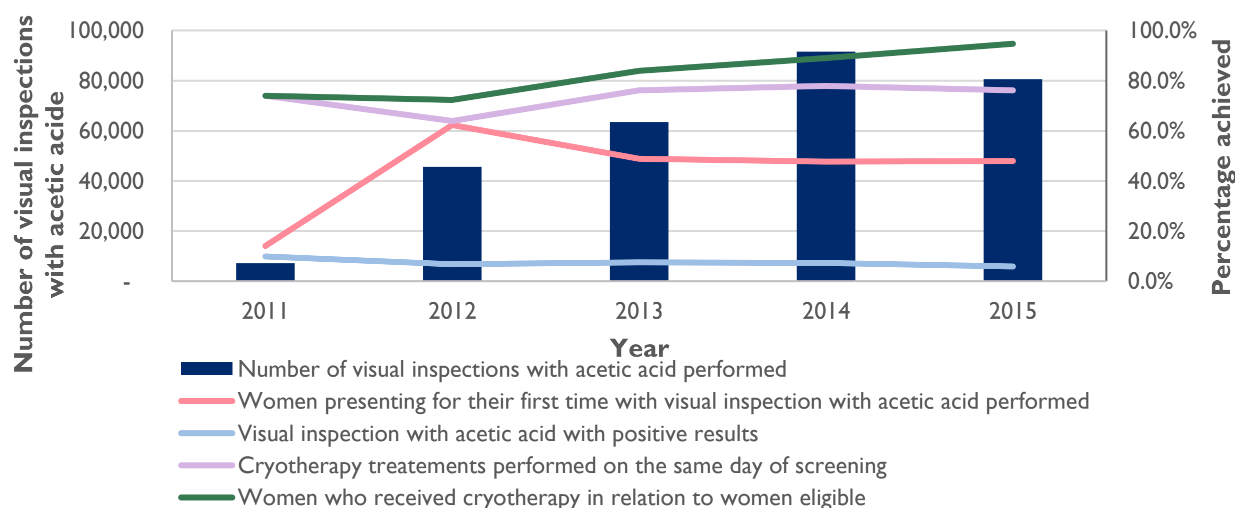
[34] The HMIS does not currently disaggregate severe from moderate cases of pre-eclampsia, so the denominator for the indicator percentage of pre-eclamptic and eclamptic women is inflated and includes moderate cases that do not require treatment. This disaggregation is included in the newly revised RMNCH registers, so the quality of information reported on this indicator is expected to improve in 2016.

to mobilize transport for 26 women suffering from fistula to health facilities so they could receive services to repair this condition.

Supported Integration of Cervical and Breast Cancer Prevention into Reproductive Health/FP Services

In alignment with MOH policy, MCSP supported service expansion for the prevention of cervical and breast cancer using the single visit approach and increased the overall coverage of referral services (colposcopy and the loop electrosurgical excision procedure) for follow-up of patients with severe lesions detected by visual inspection with acetic acid. MCSP supported the training of 111 health professionals in the visual inspection with acetic acid screening approach and cryotherapy treatment, and 13 health professionals in colposcopy and the loop electrosurgical excision procedure, increasing women's access to these vital services. By the end of September 2015, the visual inspection with acetic acid screening rate was 48%, more than triple the baseline in 2011 (14%), and 95% of eligible women received cryotherapy on the same day or during the days following screening. Figure 3 presents overall trends of CECAP indicators from MCHIP to MCSP.

Figure 3. Trends in CECAP indicators through the transition of MCHIP to MCSP in 2015*



*2015 data cover January–September of that year.

Mobilized Community Groups to Become Active Participants in the Health of Their Communities

MCSP mobilized groups to lead or engage in efforts to improve the health of their communities. The program provided financial support and mobilized community efforts to conduct 96 mobile brigades, which included vaccination for 3,380 children and educational sessions with 6,070 community members regarding FP, the importance of pre- and postpartum consultations, the new rotavirus vaccine, exclusive breastfeeding, nutrition, institutional births, and diarrhea. MCSP also provided refresher training to 297 co-management and humanization committee members, which included facility and community representatives who work together to identify and jointly address priority issues affecting quality of health services. As a result of the capacity-building support, co-management and humanization committees were able to clearly define their tasks and objectives, elaborate on plans, and report results.

Recommendations for the Future

During its 5 months of implementation, MCSP was able to finalize activities initiated under MCHIP, including consolidating implementation of the Model Maternity Initiative and National CECAP program in all provinces of Mozambique, and demonstrate improvements in reproductive and MNH health quality indicators. By the end of the program, MCSP transitioned capacity-building, QI, and supervision activities to the MOH and provincial health directorates where the follow-on MCSP program would no longer be operating. Beginning on October 1, 2015, the 5-month bridge program transitioned to a 3.5-year follow-on

program under MCSP, which focused on providing continued support to the central-level MOH and to Nampula and Sofala provinces for facility- and community-based RMNCAH services. Recommendations for the new program included:

- **Continue support of national initiatives.** MCSP successfully supported the MOH's MNH and CECAP initiatives. It also recommended that future programs provide ongoing support to assist with the transition of national programs by providing technical assistance to the MOH and other implementing partners to conduct national and regional trainings in the Model Maternity Initiative and CECAP programs.
- **Strengthen community health efforts and community-facility linkages.** MCSP found that community groups were vital to engaging fellow community members in health-related activities. It recommended that future efforts in RMNCAH focus on the community level and on strengthening linkages between communities and health facilities.
- **Integrate service delivery.** The bridge program was able to integrate CECAP and breast cancer prevention into reproductive health/FP services. To reach more women, men, and children with important health services, MCSP recommended that an integrated service delivery approach be used in other health areas as well.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of women receiving active management of the third stage of labor through USG-supported programs	100% (target: 95%; target exceeded)
Percentage of deliveries with partograph completely filled	77.1% (target: 75%; target exceeded)
Percentage of babies who graduated from KMC at MCSP-supported facilities	87.6% (target: 80%; target exceeded)
Percentage of babies not breathing/crying at birth who were successfully resuscitated in MCSP-supported areas	74.8% (target not defined)
Percentage of eligible cervical cancer screened women with visual inspection with acetic acid-positive results receiving immediate cryotherapy	82.2% (target: 80%; target exceeded)
National policies drafted with USG (MCSP) support	1[1] (target: 2; 50% achieved)
Number of MCSP-supported health facilities actively implementing a QI approach	127 (target not defined)
Percentage of MCSP target districts with regular feedback mechanisms supported by the program to share information on progress toward RMNCH health targets with community members and/or CSOs	100% (target: 30%; target exceeded)

[1] National Strategy for Quality and Humanization 2015–2019.

For a list of technical products developed by MCSP related to this country, please click here.

Mozambique Malaria EOP Summary & Results

Geographic Implementation Areas

Provinces
- 1/11 (9%)—Zambezia

Districts
- 14/22 (64% in Zambezia)

Facilities
- 58/246 (24%)

Population

Country
- 28.9 million

MCSP-supported areas
- 3.45 million

Technical Areas

Program Dates

March 1, 2016–September 30, 2018

Total Funding through Life of Project

$2,950,000

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	813,907
MMR (per 100,000 live births)[2]	408
NMR (per 1,000 live births)[2]	30
U5MR (per 1,000 live births)[2]	97
Malaria prevalence among children 6–59 months[3]	40.2%
ANC4[3]	54.6%
Births with SBA[3]	73%
IPTp2[3]	34.2%
IPTp3[3]	22.4%

Sources: [1] UN 2017 World Population Prospects; [2] Ministério da Saúde, ICF International, Moçambique Inquérito Demográfico e de Saúde 2011; [3] 2015 Survey of Indicators of Immunization, Malaria, and HIV/AIDS in Mozambique

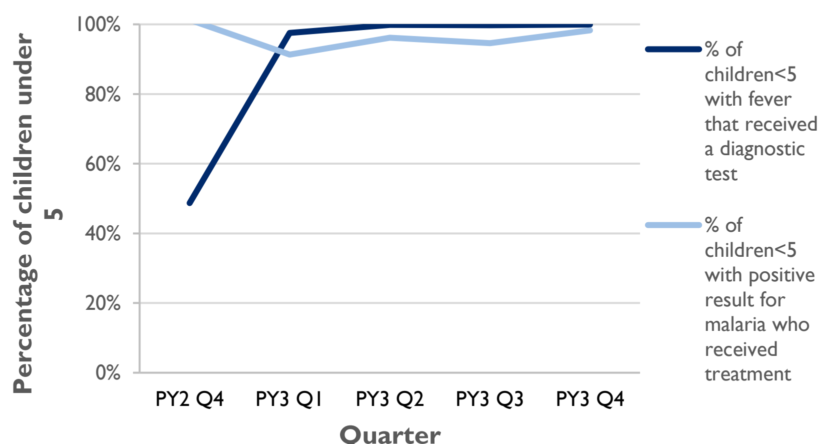
Strategic Objectives through the Life of Project

- Strengthen provincial and district health systems to improve overall performance of malaria prevention and treatment efforts.
- Increase access to quality fever case management (correct diagnosis and treatment) to be in alignment with national malaria treatment guidelines.
- Expand access and quality of MiP activities in targeted districts.

Highlights through the Life of Project

- Provided technical and financial support to develop the National Malaria Strategic Plan 2017–2022, national malaria treatment guidelines, and national case management training package.
- Developed and implemented comprehensive malaria standards. By the end of PY3, all 58 program-supported facilities had initiated the QI 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 to baseline.
- By the end of PY3, over 99% of children under 5 with fever had received a diagnostic test in MCSP-supported areas, and 98% of children under 5 with a positive malaria diagnosis had received artemisinin-based combination therapy.
- Increased the percentage of pregnant women with a positive result for malaria who received treatment over PY3 (when data for this indicator started being reported through the national HIS), from 72% in quarter 1 to 95% in quarter 4.

Figure 1. Coverage rates for diagnosis and treatment of malaria in Zambezia Province



Source: Mozambique HMIS

Mozambique—Malaria

Background

MCSP's 2.5-year malaria program in Mozambique aimed to reduce malaria morbidity and mortality in Zambezia Province, which, at 68%, has the highest prevalence of malaria in children under 5 in Mozambique. To achieve this goal, MCSP supported the MOH and the NMCP to build supportive national and subnational systems for malaria prevention and control efforts, including the development of national strategies, guidelines, and training materials, as well as improved systems for measurement and use of malaria data for decision-making. MCSP improved the quality of malaria case management and MiP services by developing and applying malaria performance standards and building the clinical capacity of health workers through training and mentoring in case management, microscopic diagnosis of malaria, and MiP. To improve the quality of iCCM services, MCSP enhanced the supervision of elementary polyvalent agents (*agentes polivalentes elementares*), who are community members trained to provide basic health care (including malaria prevention, diagnosis, and treatment) in the remote areas in which they live. (For more information about MCSP's malaria activities under this program and in Nampula and Sofala, see the malaria program brief.)

Key Accomplishments

Strengthened Quality and Use of Malaria Data

MCSP helped the Provincial Health Directorate organize quarterly data review meetings with representatives from program-supported districts and health facilities to present malaria indicators and discuss the findings and trends. To build capacity for improved measurement of malaria programs, MCSP trained 389 health workers to correctly complete data collection forms. MCSP also integrated verification, analysis, and reconciliation of data in registers and monthly summary reports into quarterly onsite support visits at 58 health facilities. At the district level, MCSP helped statistical officers to review malaria reports and reconcile errors and missing data. This technical assistance was particularly important during the first 2 years of the malaria program in Mozambique, as the entire health system transitioned from an earlier HIS platform (*Módulo Básico)* to the District Health Information Software 2. By the second year of the malaria program, 58 (100%) of MCSP-assisted health facilities were analyzing malaria indicators on at least a quarterly basis and identifying recommendations for improvements.

Updated Malaria Strategy, Training Package, and Guidelines

To improve strategic planning for malaria, MCSP hired a consultant who worked with the NMCP and in consultation with malaria partners to develop the National Malaria Strategic Plan, 2017–2022. The plan aims to reduce the burden of malaria in high-transmission areas and sustain gains in low-transmission areas to accelerate toward malaria elimination. It has six objectives that address program management, prevention, case management, social and behavior change communication, elimination, surveillance, and M&E. The minister of health approved the plan in November 2017. In PY3, MCSP worked with the NMCP to develop an updated case management training package that includes facilitator and participant manuals, and also provided technical support to update the national malaria treatment guidelines. MCSP printed over 2,000 copies of both manuals for Zambezia Province, and an additional 15,000 copies of treatment guidelines and 200 training manuals for the NMCP to distribute to health providers throughout the rest of the country.

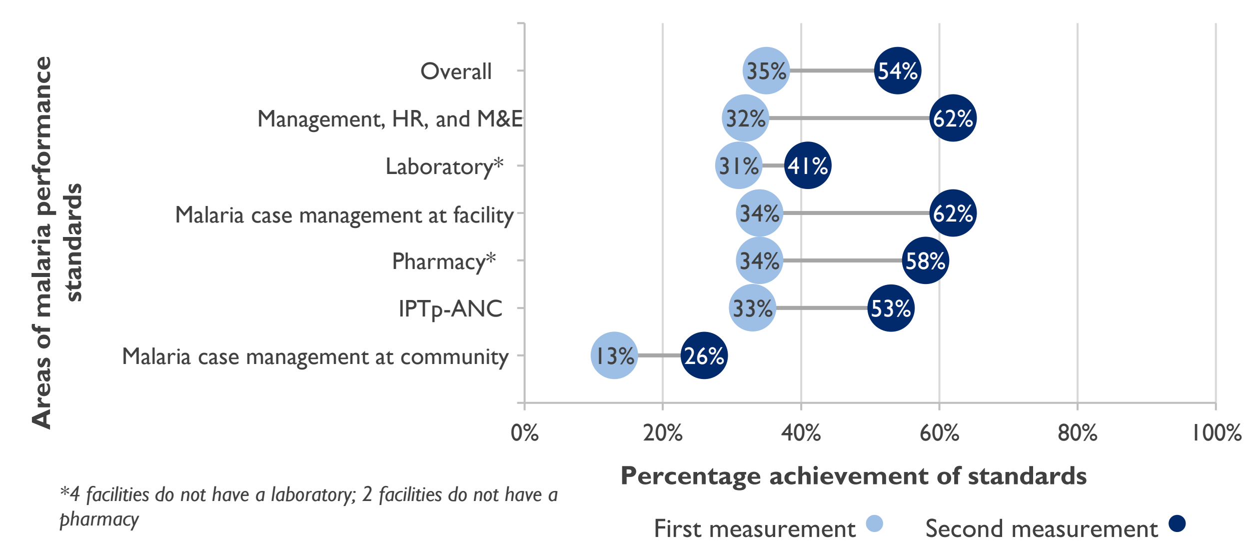
Improved Coordination of Provincial Malaria Partners

Under the direction of the Provincial Health Directorate, MCSP helped plan and hold regular partner meetings in an effort to improve coordination, reduce duplication of malaria activities, and increase the impact of collective malaria efforts in the province. As a result of these meetings, the Provincial Health Directorate improved coordination with PMI partners, implementing partners shared monthly work plans with each other and the Provincial Health Directorate, and the Provincial Health Directorate and partners regularly discussed and reviewed malaria data. These meetings, which have continued after the end of the program, empowered the Provincial Health Directorate to make more strategic decisions about malaria efforts.

Implemented a QI Approach for Malaria

MCSP provided technical support to the MOH to develop comprehensive malaria standards, which assess six areas of performance: pharmacy, management of human resources and commodities, laboratory, malaria case management, IPTp, and community malaria case management. To carry out the QI approach, the project trained 20 trainers and 113 managers and health workers, and provided onsite mentoring to conduct quarterly measurements against standards and help facilities develop action plans to address identified gaps. By the end of PY3, all 58 program-supported facilities had conducted a baseline measurement. 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 to baseline (see Figure 2).

Figure 2. Improvements in malaria standards in 47 health facilities in Zambezia



Increased Provincial Capacity to Deliver Quality Fever Case Management and MiP Services

MCSP developed 20 district-level malaria focal points as trainers in malaria case management, and supported them to train and mentor 679 health workers in fever case management, 87 in IMCI, 95 in microscopic diagnosis of malaria, and 467 in MiP. In PY4, the program also supported the Provincial Health Directorate to roll out a province-wide cascade training of 33 provincial trainers and 1,660 health workers from 22 districts in case management and MiP. By the end of PY3, when MCSP completed its direct support to the 58 health facilities, over 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 artemisinin-based combination therapy, and 95% of pregnant women with a positive result for malaria had received treatment.

Strengthened Community Malaria Case Management

MCSP worked with district health directorates to strengthen the capacity of elementary polyvalent agents at the community level to diagnose and treat malaria, and to improve the linkages between the community and facility-based health teams. The program involved 201 elementary polyvalent agents and 83 elementary polyvalent agent supervisors in 58 joint supervision visits in 13 of 14 implementation districts. The supervision visits ensured that patient data were reported from the community to the facility (for subsequent reporting up to the district level) and that the elementary polyvalent agent and their supervisor reviewed the quality of data and used the information to target services. The visits also confirmed whether elementary polyvalent agents had a sufficient stock of malaria commodities in their kits; helped the elementary polyvalent agents establish and maintain linkages to other community structures, such as community health committees; and built the capacity of the elementary polyvalent agents and their supervisors to correctly diagnose and treat malaria based on national guidelines. These supervision visits have continued since the end of the program, demonstrating the sustainability of this activity developed through MCSP's support.

Recommendations for the Future

- **Pair health facilities to measure performance and examine motivating factors for improving quality of malaria services.** During the first 2 years of implementation, the districts and MCSP worked together to pair health facilities to conduct internal measurements on performance standards. This practice was found to increase the objectivity of the process and resulted in healthy competition among facilities. MCSP recommends its incorporation in future QI efforts. Although MCSP did not directly support facilities to conduct quality measurements after PY3 (based on USAID's recommendation to direct all remaining funding to case management training), 45 facilities continued to conduct measurements in quarter 1 of PY4. MCSP recommends that the provincial health directorates continue to track the use of QI approaches at the facility level and to examine which factors (i.e., leadership, resources, support from the provincial health directorates) motivate staff to continue these measurements.
- **Coordinate facility and community-level MiP efforts.** Availability of essential commodities (e.g., rapid testing kits, SP, and long-lasting insecticidal nets) and data collection and reporting tools likely impacts performance against MiP standards and indicators. Successful implementation of WHO's MiP guidelines will require coordinated efforts to strengthen MiP service delivery alongside community-level interventions to promote early ANC. MCSP recommends that future malaria investments consider including coordinated facility- and community-level components to address the demand and supply side of MiP service delivery, and that supply chain efforts focus on the "last mile" to improve product availability at the health facility and community levels.
- **Continue to support data review meetings.** Quarterly meetings of district data managers 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 improves malaria data, it will be important to continue support for data review meetings and analyze trends on key malaria indicators over time.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number and percentage of pregnant women who received IPTp2 for malaria under direct observation in MCSP-supported areas	52,171 (55%, target: 71%; 77% achieved)
Percentage of women with a positive result for malaria who received treatment for malaria during pregnancy	92% (target: 80%; target exceeded)
Number and percentage of children under 5 with fever that received a diagnostic test in MCSP-supported areas	428,301 (92%)[1]
Number and percentage of children under 5 with positive diagnosis for malaria who received artemisinin-based combination therapy	250,219 (96%)[1]
Number of people trained in fever case management through USG (MCSP)-supported programs	2,372 (target: 1,775; target exceeded)
Percentage of elementary polyvalent agent supervisors in MCSP-supported districts who received at least one supportive supervision visits during the reporting period	92% (target: 100%; 92% achieved)

[1] Targets were originally set as a 20% increase from baseline. However, no baseline was available for this indicator before the implementation of new child health registers (December 2018). Other data sources, like the weekly epidemiological bulletin, provided only total malaria cases confirmed, not those tested and/or treated. Because accurate numbers for testing and treatment were not available until the child registers were rolled out, the program was unable to calculate the targets.

For a list of technical products developed by MCSP related to this country, please click here.

Mozambique Maternal and Child Survival EOP Summary & Results

Geographic Implementation Areas

Provinces

- 2/11 provinces (18%)—Nampula and Sofala

Districts

- 34/154 districts (22% of country total, 23/23 in Nampula, 11/13 in Sofala)

Facilities

- 111/1,651 facilities (7% of country total)

Communities

- 1,114 communities

Population

Country

- 28.9 million

MCSP-supported areas

- 2.7 million

Technical Areas

Program Dates

October 1, 2015–March 31, 2019

Total Funding through Life of Project

$51,312,707

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	408
NMR (per 1,000 live births)[1]	30
U5MR (per 1,000 live births)[1]	97
TFR[2]	5.3
CPR (modern) [2]	25%
ANC4[2]	54.6%
SBA[2]	73%
IPTp2[2] IPTp3	34.2% 22.4%
DPT3[2]	81.6%
Care-seeking for fever in children U5[2]	57%
Stunting (height for age <5) [1]	43%

Sources: [1] Mozambique DHS 2011; [2] IMASIDA 2015

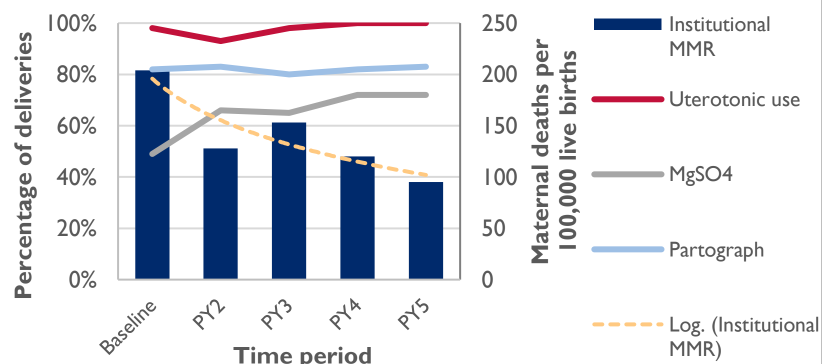
Strategic Objectives through the Life of Project

- Strengthen leadership and management capacity of the MOH to deliver high-quality RMNCAH programs.
- Increase access to and demand for quality reproductive health and FP interventions.
- Improve access to and demand for quality gender-transformative MNH interventions, including integration of FP, malaria, nutrition, and WASH.
- Increase access to and demand for quality child health interventions, including integration of FP, immunization, malaria, nutrition, and WASH.

Highlights through the Life of Project

- Improved coverage and quality of RMNCAH interventions, contributing to the reduction of the institutional MMR at 86 health facilities from 204 at baseline in 2014 to 120 in 2018, and saved an estimated 7,396 under-5 children's lives in project-supported areas.
- Introduced a new approach for improving RMNCAH referrals and counterreferrals in Nampula Province, which the MOH has committed to replicating in the other 10 provinces in Mozambique.
- Assisted communities to replicate WASH infrastructure with local materials, improving access to basic sanitation services for nearly 525,000 people.
- Increased the percentage of children who recovered from acute malnutrition from 59% to 72% by supporting the MOH for training and mentoring of health workers and community nutrition activists.

Figure 1. Quality of maternal health care and institutional MMR trends in 86 health facilities*



*PY5 includes only Nampula facilities (56).

Mozambique—Maternal and Child Survival

Background

Mozambique's MMR of 408 per 100,000 live births and newborn mortality rate of 30 per 1,000 live births rank among the highest in Southern Africa. High mortality rates are associated with early childbearing and short birth intervals—significant challenges, given Mozambique's low use of FP. While there have been substantial reductions in under-5 mortality in the past two decades, approximately two-thirds of all infant and child deaths occur after the neonatal period, when they are largely preventable. Malaria is responsible for 42% of deaths in children under 5, and studies indicate that 43% of children in Mozambique are chronically malnourished or stunted, leading to lifelong consequences, including delayed mental and psychomotor development, reduced productivity, and increased mortality rates.

MCSP in Mozambique aimed to reduce the country's high maternal, neonatal, and under-5 mortality through a family-centered systems approach focused on Nampula and Sofala provinces while providing critical support at the national level to ensure a supportive environment for the delivery of high-quality RMNCAH programs. MCSP supported HSS efforts at the national level, including institutionalization of QI systems, implementation of evidence-based models for human capacity development, and strengthening of the national HIS. MCSP worked at the subnational level to strengthen RMNCAH, nutrition, and malaria service delivery and the household-to-hospital continuum in 34 districts, 111 health facilities (including 25 intensive nutrition-only facilities), and 1,114 communities.

Key Accomplishments

Built Planning and Management Capacity of the MOH

MCSP developed strategic planning tools and assisted the provincial and district health directorates of Nampula and Sofala to incorporate prioritized RMNCAH activities and realistic targets into their annual economic and social plans. MCSP also assisted the provincial health directorates to successfully plan and implement fixed-amount awards, through which they trained 105 midlevel MCH nurses and completed the first 2 years of PSE training programs for 30 surgical technicians in Nampula and 30 obstetric nurses in Sofala. Since their graduation in June 2018, the Nampula provincial health directorate placed 70 MCH nurses in the province's health facilities. Nampula and Sofala also budgeted state funds to complete the final 2 years of the surgical technician and obstetric nursing PSE programs, demonstrating the MOH's planning capacity and commitment to addressing the human resources for RMNCAH shortage. Through these activities, MCSP has contributed to building lasting leadership and management capacity at the MOH that will benefit RMNCAH programs for years to come.

Improved Metrics, Data Quality, and Use for RMNCAH, Nutrition, and Malaria

MCSP provided technical support to the Nampula and Sofala provincial health directorates to transition the previous HIS to a new database using DHIS2. MCSP also assisted the MOH to develop and pilot new well- and sick-child health registers that integrated routine child health and nutrition indicators into the national HMIS, thus making child health data available to managers for program planning, monitoring, and evaluating of their efforts. MCSP worked with district statistical focal points and health workers at 86 facilities to reinforce correct completion of RMNCAH registers, identify data quality issues, and review monthly summary reports for accuracy before entering data into the national HMIS. Finally, MCSP assisted facilities and districts to use wall charts and dashboards, and conduct regular data review meetings to analyze and use health data for informed and timely decision-making.

Strengthened Community Health Committees and Cadres to Promote Community Health

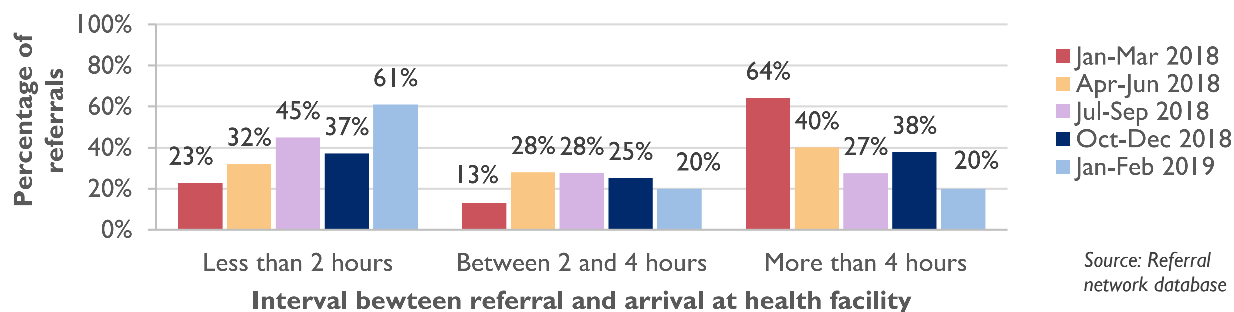
MCSP supported the reorganization and training of 758 community health committees (comprising members of community health cadres) using the Community Action Cycle to strengthen skills to explore, plan, act together, and monitor achievements using data for decision-making. Working with health facilities' community engagement counterparts, MCSP strengthened supervision and mentorship of community health committees and improved linkages between community structures and facilities. The mentoring visits built

the capacity of community health cadres, such as elementary polyvalent agents (*agentes polivalentes elementares*) and traditional birth attendants, to treat common infectious diseases in children under 5, and to counsel and provide safe birth interventions, such as CHX for newborns and misoprostol for prevention of PPH. MCSP also supported the 758 community health committees to use a simple, paper-based table to analyze data for selected indicators each month and identify goals for community-driven health priorities and outcomes. The program also strengthened community health committees' reporting of community data to facilities, resulting in better coordination of health campaigns and outreach.

Improved the Functionality of Referral and Counterreferral Networks

MCSP created eight networks in Nampula to increase referral and counterreferral rates for a key set of MNCH services, including obstetric and newborn complications. MCSP supported coordination meetings with district, facility, and community representatives to define strategies to improve the effectiveness of the networks. The project trained providers from 214 facilities in referral reporting tools, including a database developed in DHIS2. MCSP also mapped community emergency transportation options in 580 communities and mentored community health committees to develop 266 village community banks that raised funds to maintain and fuel motorcycle ambulances. From January 2018 to February 2019, 8,117 patients were referred from a peripheral facility to a referral facility, of which 74% completed the referral. Of these, 66% received a counterreferral. Timeliness of referrals improved over this period, with the percentage of patients taking more than 4 hours to complete referral decreasing from 64% to 20% (see Figure 2). Based on this experience, the MOH announced plans to replicate the approach in Mozambique's other provinces.

Figure 2. Interval between time of referral and time of arrival at health facility



Source: Referral network database

Addressed Gender Inequities through Policy Change and Gender-Sensitive Health Services

In the second National Gender Strategy for the Health Sector, 2018–2023, MCSP supported the MOH to create a time-bound action plan to ensure women and men receive high-quality health services at all levels of care. MCSP trained 1,358 providers in 86 facilities to offer high-quality couples counseling to support male participation in ANC, birth preparedness and complications readiness, PPFP, and prevention of GBV. The percentage of men who participated in at least one ANC visit increased from 55% at baseline in 2014 to 70% at the program's end. MCSP also built the capacity of 8,073 community health cadres on couples counseling for birth preparedness and complications readiness. As a result, 49,154 couples developed birth plans, chose a facility in which to deliver, saved money, arranged transport, and selected a supportive birth companion in advance of the birth.

Stimulated Demand Creation and Health Promotion

MCSP built the capacity of 11,370 members of community health cadres to encourage people to adopt healthy lifestyles and practices, and use facility-based and mobile health (outreach) RMNCAH, nutrition, and malaria services. Through interventions including cooking demonstrations, community radio shows, theater, community dialogs, health fairs, and household visits, the community health cadres reached 6,129,331 individuals with health promotion and education messages, which drove a greater demand for services. For example, the percentage of pregnant women who attended four or more ANC visits at 86 program-supported facilities increased from 39% at baseline in 2014 to 53% at endline.

Improved the Quality of MNH Care

MCSP assisted 86 facilities to scale up high-impact interventions for MNH (e.g., treatment of PE/E with magnesium sulfate, correct completion and use of partograph for labor monitoring, and administration of a uterotonic in the third stage of labor to reduce risk of postpartum blood loss) through on-the-job training and mentoring of midlevel nurses and general practitioners. MCSP helped to create facility-based QI teams that conducted quarterly self-assessments against performance standards and developed action plans to improve service quality. More than 396,000 women gave birth with an SBA at supported facilities during the life of the program. During this period, 92% of facilities improved their adherence to quality standards by at least 50% compared with baseline. This improvement correlated with a decrease in institutional MMR (from 204 per 100,000 institutional deliveries at baseline in 2014 to 120 in 2018) and improved performance on high-impact maternal health interventions (see Figure 1). Facilities also demonstrated consistently high levels of coverage for newborn health indicators. Cumulatively, 94% of newborns were placed skin to skin immediately after birth, 94% of newborns were put to the breast within 1 hour after birth, and 82% of newborns not breathing/crying at birth were successfully resuscitated.

Increased Uptake of PPFP Methods

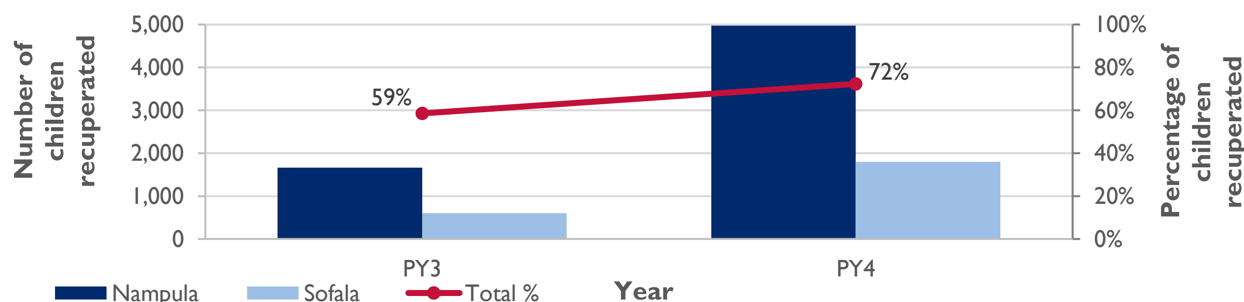
MCSP built the capacity of health care providers at 86 health facilities in Nampula and Sofala through on-the-job training and mentoring on the various contraceptive methods available for postpartum women, including lactational amenorrhea and short- and LARCs (including postpartum implants and IUDs). MCSP also reinforced high-quality FP counseling during ANC and the immediate postpartum period, including the healthy timing and spacing of births. These interventions resulted in increased voluntary uptake of PPFP before discharge after delivery at 86 MCSP-supported facilities, from 5% in PY2 to 24% in PY4. (For more information, see the program brief on CECAP and FP services in Mozambique.)

Reached over 3.4 Million Children under 5 with Evidence-Based Nutrition Interventions

Through MCSP's support to nutrition programming at health facility and community levels, 3,428,782 children received screening, referral, and treatment of acute malnutrition, vitamin A supplementation, home fortification with micronutrient powders, and social and behavior change communication activities, including nutrition education sessions and cooking demonstrations for caregivers.

To ensure adequate treatment at the community level and prevent relapse, MCSP strengthened referral and counterreferral systems that enabled community volunteers to conduct household visits and support group sessions with caregivers of children suffering from moderate or severe acute malnutrition. The strengthened continuum of care enabled community health activists to find defaulting cases and ensure their return to treatment. As shown in Figure 3, the percentage of children with acute malnutrition who recovered increased from 59% in September 2017 to 72% in September 2018.

Figure 3. Number and percentage of children 0–59 months with moderate or severe acute malnutrition who recuperated in project-supported facilities



Improved Access to Basic Sanitation Services

MCSP helped community health committees establish and maintain 1,313 WASH demonstration centers, which provided households in 758 communities with the skills needed to construct durable, inexpensive, and

effective WASH products, including 112,074 latrines, 25,934 tippy taps, 84,212 landfill sites, 52,312 stands for utensil storage, and 79,037 drying racks. Using the DHS 2011 average rural family size of 4.3 individuals, these results represent improved access to basic sanitation services for nearly 525,000 people.

Strengthened IMCI at Health Facilities

MCSP updated the skills of 57 provincial trainers and 411 providers from 86 facilities to ensure strong implementation of the national IMCI strategy. To increase the sustainability of IMCI QI efforts, MCSP built the capacity of provincial and district supervisors to use a supervision tool developed with the program's support. MCSP worked with these supervisors to regularly mentor health care providers in IMCI, well-child, and at-risk child services to improve the flow of child health services, data analysis and use, and application of IMCI guidelines to classify and manage malaria, diarrheal diseases, and pneumonia (the major contributors to child mortality). MCSP's capacity-building efforts resulted in the timely diagnosis and treatment of malaria, diarrhea, and pneumonia at its supported facilities: 105%[35] of children with malaria, 98% of children with diarrhea, and 88% of children with pneumonia received treatment per national guidelines. (For further details, see the program brief on child health in Mozambique.)

Reduced Vaccination Dropout Rates through Microplanning

MCSP supported 341 mobile brigades through improved microplanning and logistical support, contributing to a cumulative 302,092 children under 12 months of age receiving Penta3 in MCSP-supported areas. The Penta3 dropout rate at 14 health facilities implementing the RED/REC strategy declined by 43% in Nampula and 52% in Sofala after the introduction of microplanning, and the number of children immunized increased markedly, particularly in Sofala, after the introduction of REC. (For more information, see the program brief on strengthening immunization services.)

Recommendations for the Future

MCSP's promising results in Mozambique would not have been possible without the leadership and commitment of the Government of the Republic of Mozambique and the MOH to advance national-, provincial-, and district-level management capacities; strengthen the capacity of the health workforce to deliver preventive services and lifesaving care; and improve access to high-quality RMNCAH care. With the launch of the National Strategy for Quality and Humanization of Health Care 2017–2023, the MOH has outlined its priorities and provided a framework to achieve improved quality of services. The new USAID-funded bilateral program—Quality Health Initiative—will work with the newly formed Quality Assurance and Management Directorate and all 23 districts and health facilities in Nampula Province, which will provide an opportunity to build on the progress and results achieved under MCSP. Using documented learning from MCSP's referral and counterreferral and male engagement approaches, it is recommended that the MOH provide leadership and allocate resources to scale up these approaches with robust measurement to monitor progress. There is also an opportunity to build on the skills of trained providers and trainers to deliver high-impact interventions. MCSP has the following recommendations for the MOH and future projects:

- **Implement comprehensive human capacity development approaches to ensure that staff are qualified.** MCSP successfully implemented evidence-based, sustainable approaches to building the capacity of health professionals. The project recommends that the MOH and other projects in Mozambique use a structured supportive supervision and mentoring process, reinforce use of checklists and job aids for self-learning (by health professionals), develop an exchange program to allow health professionals to share knowledge and experiences, and support capacity-building for on-the-job training at facility level to sustain skills of health professionals.
- **Leverage and work within the system to sustain QI of RMNCAH services.** To build upon improvements in quality of RMNCAH services, MCSP recommends that the MOH and other projects identify and support QI advocates at facility and district levels who motivate their supervisees and coworkers to make progress on quality indicators. The MOH should publicly recognize champions,

[35] Some providers continue to treat based on a clinical diagnosis. MCSP reinforced adherence to national standards of treating individuals with confirmed malaria infection.

managers, and health workers for their progress and successes. To sustain capacity-building efforts, the MOH and donors should dedicate resources to support decentralization of QI efforts by mentoring provincial and district focal points in management and leadership skills for QI.

- **Make measurement and data use priorities.** Monthly review and display of key indicators at the facility and district levels and at data review meetings enabled health workers to monitor their performance and decide how to improve RMNCAH services at the local level. Provincial and district authorities should prioritize data discussions to analyze quality indicators and create healthy competition to improve services. MCSP recommends that district and facility managers ensure that data meetings continue with community cadres to recognize their contribution to creating demand for facility-based services and to share data that will improve program planning and monitoring.
- **Sustain MOH commitment and investment to the integrated care, referral, and counterreferral system in Nampula and throughout Mozambique.** Establishing the referral network system in Nampula through the formal commitment and involvement of high-level government leaders helped to ensure: the creation of trusted relationships and platforms for sharing information and mutual learning among providers; the utilization of data and learning to inform actions to address challenges; greater mobilization and more effective use of available resources to ensure the sustainability of interventions; and a collaborative, or "co-production of health," approach that promoted alliances in the province that facilitated improved understanding of the needs and objectives of each partner. MCSP recommends that the MOH continues to commit its resources and partnerships to strengthen and expand the referral network strategy in Mozambique to ensure that referrals are effective, functioning, and lifesaving.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of target communities that have a functional community health committee	100% (target: 95%; target exceeded)
Couple years of protection (modern methods)	1,131,225 (target: 578,836; target exceeded)
Percentage of women delivering in MCSP-supported facilities who accept a method of FP before discharge	24% (target not defined)
Number of pregnant women who attended four or more ANC visits at MCSP-supported health facilities	198,181 (target: 196,376; target exceeded)
Percentage of pregnant women who received 90 iron-folic acid supplements	64% (target: 46%; target exceeded)
Percentage of deliveries with partograph completely filled as per protocol	82% (target: 88%; 93% achieved)
Percentage of women receiving a uterotonic in the third stage of labor	100% (target: 98%; target exceeded)
Percentage of newborns not breathing/crying at birth who were successfully resuscitated in MCSP-supported areas	80% (target: 84%; 95% achieved)
Number of PNC visits within 2 days of birth in MCSP-supported areas	323,990 (target: 248,188; target exceeded)
Number of children under 5 reached by USG-supported nutrition programs	3,428,782 (target: 765,060; target exceeded)[1]
Percentage of children 0–59 months with moderate acute or severe acute malnutrition who were recuperated	72% (target: 69%; target exceeded)
Number of children under 12 months old who received DTP3/Penta3 vaccine in MCSP-supported areas	302,092 (target: 236,147; target exceeded)
Dropout rates from DTP1 to 3	8% (target: ≤ 8%; target achieved)

[1] MCSP provided support to the provincial health directorates in PY4 to conduct provincial health campaigns and National Health Weeks. These activities brought great demand for services, and it was therefore possible to achieve much higher results than were predicted at the beginning of the project.

For a list of technical products developed by MCSP related to this country, please click here.