MCSP Mozambique Program Brief
Maternal and Newborn Health

October 2018 www.mcsprogram.org

Goal

The maternal mortality ratio in Mozambique stands at 408 per 100,000 live births, one of the 20 highest in the world[1], and one in 41 women are at risk of maternal death in their lifetimes[2]. Newborn deaths are 30 per 1,000 live births. About one-third of newborn deaths occur in the first week of life, and about two-thirds of those deaths occur in the first day of life. Approximately 20% of newborns are reported to receive postnatal care[3], and 30% of newborns are delivered at home[4]. According to the 2011 DHS, about three-quarters of newborns are breastfed within the first hour of life, but only 43% of infants under 6 months are exclusively breastfed.

A woman lies next to her newborn at Nihessiua Health Centre in Nampula. Photo: Kate Holt/MCSP

The maternal and newborn health (MNH) component of the USAID Maternal and Child Survival Program (MCSP) in Mozambique worked with the government to strengthen the health system and service delivery models to reduce all causes of maternal and newborn morbidity and mortality in two provinces: Nampula and Sofala. The Program aimed to improve access to and the quality of antenatal, intrapartum, postpartum, and postnatal services from the household to the hospital level. It also worked to strengthen referral systems and improve the coverage and quality of interventions addressing high-risk conditions in pregnancy (e.g., malaria, anemia, HIV, tuberculosis).

Program Approaches

To address Mozambique's pressing MNH issues, MCSP employed approaches at all levels of the health system.

- **Reinforced referral systems for obstetric, neonatal, and child emergencies and regular health care visits:** MCSP strengthened eight networks in Nampula province to increase referral and counter-referral rates for a key set of MNH and child health services, including obstetric and newborn complications. MCSP supported coordination meetings with district, health facility, and community representatives to define strategies and operational procedures to improve the effectiveness of the referral network. MCSP also trained providers from 214 health facilities in referral reporting tools, including a database developed by the Program in the District Health Information System (DHIS2), which will allow the Ministry of Health (MOH) to eventually integrate the information into the national health information system. At the community level, MCSP mapped

[1] ICF Macro, Manhiça Health Research Center (CISM), Ministry of Health (Mozambique), National Statistics Institute (Mozambique). Mozambique Demographic and Health Survey (DHS) 2011. Calverton, MD, United States: ICF Macro, 2013.
[2] Countdown to 2015, Mozambique Health Data 2014 Profile. http://www.countdown2015mnch.org/documents/2014Report/Mozambique_Country_Profile_2014.pdf.
[3] Mozambique DHS 2011.
[4] IMASIDA, 2015.

community emergency transportation options in 758 communities and mentored community health committees to develop 336 village community banks that raise funds to maintain and fuel motorcycle ambulances. MCSP also trained and mentored 11,370 community health workers to identify danger signs in pregnant women and newborns and make referrals.

- **Built capacity in high-impact interventions and quality monitoring:** To address the major causes of death for pregnant women, MCSP assisted 86 health facilities (HFs) to scale up high-impact interventions through on-the-job training and mentoring for mid-level nurses and general practitioners. Using short, targeted, simulation-based learning activities, reinforced with structured, ongoing practice on the jobsite reduced the amount of time health providers were absent from facilities and promoted maximal retention of clinical knowledge, skills, and attitudes. MCSP also supported the revision of MNH performance standards and trained health facility staff and managers in the Standards-Based Management and Recognition (SBM-R) quality improvement (QI) approach. Using this approach, MCSP conducted quarterly mentoring visits to help health workers measure their performance against the standards and develop action plans to address weaknesses. MCSP encouraged facility managers and district/provincial authorities to recognize health workers and facilities for their improvements. MCSP also provided medical equipment and materials for antenatal care (ANC), labor and delivery, postnatal care (PNC), and neonatology services to 86 health facilities. MCSP used some of these materials to create spaces in 46 health facilities for kangaroo care with preterm and low birth weight babies.

- **Strengthened maternal and perinatal death surveillance and response (MPDSR):** MCSP provided technical support to the National Maternal and Newborn Death Audit Committee to develop the Guide for Data Collection on Perinatal and Neonatal Deaths and a corresponding data collection form. MCSP provided technical and financial support to the committee members to build the capacity of provincial- and district-level managers and facility providers to analyze and discuss maternal and newborn deaths and to provide technical guidance for actions to prevent those deaths. Based on this guidance, the Nampula Provincial Health Directorate issued a circular to all health facilities with key recommendations, including instructions for providers to correctly fill the partograph, ensure that the flowchart on management of the main obstetric complications is displayed, provide nurses with the authority to transfer patients in the event that a physician is not available, and ensure that clinicians evaluate all newborns before discharge.

- **Stimulated demand for MNH:** MCSP-supported community health workers (CHWs) provided a package of integrated community health interventions, including outreach sessions, for MNH. During these health promotion sessions, MCSP-supported CHWs provided routine and consistent messaging on the benefits of ANC, birth planning and complications readiness, and facility-based delivery, as well as on recognizing danger signs during pregnancy and the postnatal period (for the mother and newborn) and the importance of seeking timely care. CHWs also helped community members identify barriers to seeking MNH care in health facilities and identify potential solutions.

- **Promoted safe births**: MCSP-supported CHWs routinely conducted education sessions and home visits with pregnant women and their families to promote facility-based delivery. The Program built traditional birth attendants' (TBA) capacity to use two key interventions for safe birth when women are unable to reach facilities (aside from normal clean birth practices): administering misoprostol to prevent postpartum hemorrhage and using chlorhexidine for cord care in newborns. MCSP also built the capacity of CHWs to work with families to develop birth planning and complications readiness plans to ensure timely preparation for institutional deliveries.

- **Introduced a gender-transformative approach among first-time/young parents (FT/YPs)**: Our First Baby (OFB) is a small-group health education program designed for young couples. MCSP developed the OFB package using global evidence and previous programming experience with FT/YPs. Recognizing the importance of young male partners in the health seeking behaviors and well-being of first-time mothers, as well as their active participation in their baby's health, OFB ensured the involvement of male partners in birth preparedness, transforming traditional gender roles. MCSP trained 26 reproductive health CHWs to facilitate nine participatory sessions with young couples, and CHWs provided 164 young women with linkages and referrals to health services. MCSP piloted OFB in six districts and later expanded the program into an additional eight districts.

- **Promoted respectful care for mothers, newborns, and their families:** MCSP built the capacity among nurses and practitioners to provide respectful care that centers on individuals and emphasizes their fundamental rights and to promote safe birthing practices that recognize individual preferences and needs. These practices include respect for beliefs, traditions, and culture that are not harmful and recognition of a woman's right to have information on her health status and care, privacy and a companion of her choice, liberty of movement, light food and beverages, and a choice in labor positions.

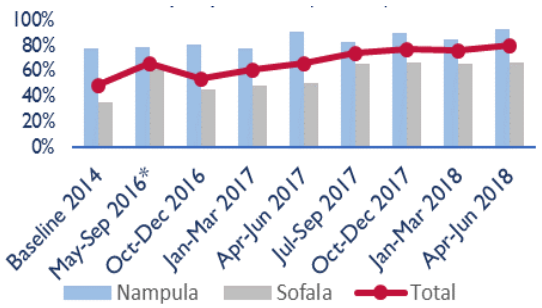
Key Results

- **Referral data reporting improved:** MCSP mentored eight referral networks to conduct their baseline measurements against referral network performance standards and develop three-month action plans to address areas of weaknesses in their referral systems, including communications, providers' technical capacity to manage obstetric and newborn complications, and emergency transportation. From April-June 2018, 169 (76%) health facilities reported referral data. Facilities referred 2,295 patients, of which 2,266 (99%) arrived at the referral facility. Of the patients who arrived at the referral facility for services, 1,302 (57%) patients received counter-referrals to provide feedback to the original referring provider.

- **The quality of MNH care improved**: More than 309,000 women gave birth with a skilled birth attendant at 86 MCSP-supported facilities between May 2016 and June 2018. During this time, 87% of health facilities (75/86) improved their adherence to quality standards by at least 50% compared with baseline. This improvement correlates with improved performance on high-impact MNH interventions. Figure 1 illustrates that 80% of women with pre-eclampsia/eclampsia (PE/E) were treated with magnesium sulfate (MgSO4) in the 86 MCSP-supported facilities, representing a 31% improvement over the 2014 baseline (49%). In addition, program-supported health facilities achieved continuous high coverage of women receiving a uterotonic in the third stage of labor, with a baseline of 98% in 2014 and universal coverage (100%) achieved by June 2018. The institutional maternal mortality ratio decreased in MCSP-supported facilities from 204 per 100,000 live births at baseline in 2014 to 120 in 2018.

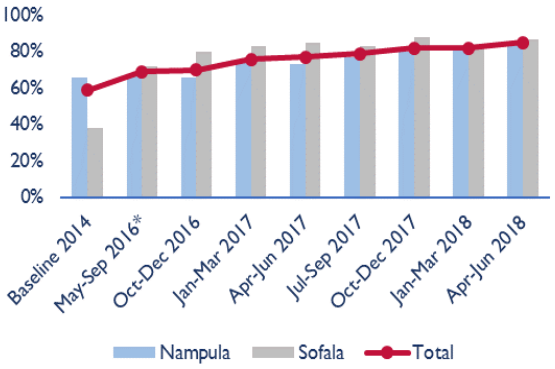
  Figure 2 shows that 86 health facilities improved the percentage of mothers and newborns that received a postnatal care visit within two days of birth, from 54% at baseline in 2014 to 85% in the second quarter of 2018. In addition, MCSP-supported health facilities demonstrated consistently high levels of coverage for newborn health indicators during the life of the Program: the percentage of newborns placed skin-to-skin immediately after birth and the percentage of newborns put to the breast within one hour after birth both remained high (both increasing from 92% at baseline in 2014 to 94% in the second quarter of 2018). MCSP also expanded the number of facilities with kangaroo care spaces from 14 to 46 (53% of all project-supported facilities) and trained 131 providers in the prevention of preterm labor and the management of prematurity. From May 2016 to June 2018, 5,548 babies received kangaroo care at MCSP-supported facilities.

Figure 1. Percentage of women with PE/E treated with MgSO4 per protocol (86 facilities)



*54 health facilities

Figure 2. Percentage of post-partum care or PNC visits within two days of birth in MCSP-supported facilities (86 facilities)

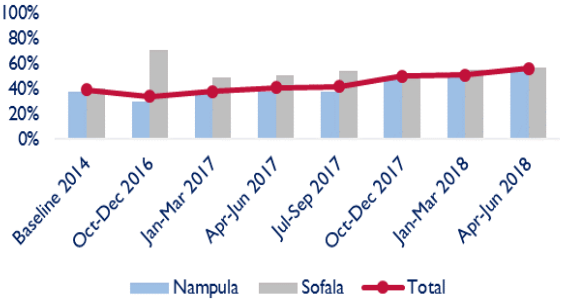


*54 health facilities

- **MPDSR improved:** Working in partnership with the World Health Organization (WHO), MCSP supported the central-level MOH and the National Maternal and Newborn Death Audit Committee to develop an online database on maternal and neonatal deaths, which was installed in central-, provincial-, and district-level hospitals throughout the country. With facilitation support from MCSP, the MOH trained 33 health professionals from all provinces in the use of the database. In Nampula and Sofala, MCSP provided technical support to conduct provincial death audit reviews. MCSP reinforced the recommendations and action plans resulting from these meetings at 86 program-supported facilities through regular mentoring visits and helped the district health directorates monitor which health facilities completed at least one action within two months of completing a death audit.

- **Demand for MNH services increased:** MCSP-supported CHWs reached a cumulative 306,555 individuals with messages on improved MNH practices from May 2016-June 2018 through community outreach and education sessions, including home visits. Figure 3 shows that during this period, the percent of pregnant women who attended four or more ANC visits at project-supported facilities increased from 39% in 2014 to 56% in June 2018.

Figure 3. Percentage of pregnant women who attended four or more ANC visits at MCSP supported health facilities (86 facilities)



- **Safe births in MCSP-supported communities increased:** MCSP trained 646 TBAs in a safe birth package, including using misoprostol to prevent PPH and chlorhexidine for cord care. In MCSP-supported areas, the percentage of women provided with misoprostol in advance of delivery for prevention of PPH increased from 45% in October-December 2016 to 161% in April-June 2018. While data quality has been a challenge, some districts are targeting distribution broadly (i.e., they have access and use estimates above 100% of estimated home births), whereas other districts are much more restrictive in their distribution (i.e., they have access and use estimates well below 100%). Nampula is attaining coverage levels far higher than the other provinces implementing the intervention, which can be attributed in part to the large numbers of TBAs trained by MCSP in the province. In addition, 36,167 couples developed birth preparedness and complications readiness plans with help from MCSP-supported CHWs.

- **MCSP's gender-transformative approach engaged FT/YP parents in MNH discussions and care**: During the implementation phase of OFB, CHWs mobilized 288 adolescents (164 female and 124 male) to participate in group sessions. Facilitators were flexible in the timing and location of the group sessions to accommodate the schedules of males and females as much as possible. Group size remained consistent, and all 288 adolescents participated in and completed the nine sessions.

Recommendations

- **Develop and support health facility-level champions to drive MNH care improvements**: Champions should include health facility directors, chiefs of maternity, and qualified professionals in the maternity ward (who are often somewhat resistant to change). As champions, they should advocate for change and encourage improvements among their colleagues. Partners and the MOH can support champions by mentoring them, providing them with resource materials, and incentivizing and recognizing their efforts.
- **Implement key interventions to ensure qualified staff:** In addition to establishing a structured, competency-based training process, other interventions will sustainably ensure qualified staff: 1) a structured, regular supportive supervision and mentoring process; 2) use of checklists and learning tools by health professionals for self-learning and evaluation; 3) an exchange program allowing committed health professionals to work in other facilities, providing care, supporting QI, and sharing knowledge and experiences; 4) capacity building for on-the-job training at the facility level to address skills gaps; and 5) a package of job aids for health facility providers.

- **Institute new procedures to avoid stock-outs**: Partners should support the MOH to establish reproductive health commodity security task forces at the district and provincial levels and to train key personnel in performing regular stock inventories.
- **Involve the community in monitoring and evaluating quality of care and foster their responsibility for implementing interventions to improve MNH**: The MOH should support health facilities to establish health facility quality and humanization committees with community members to discuss challenges and address gaps. Future programs should also coordinate community health committees, community leaders, CHWs, and volunteers to spread MNH messages, mobilize women and families to use HF services, and address MNH needs in communities.
- **Support improved analysis and regular discussion at the facility and district levels for improved MNH planning**: The MOH and partners should support data meetings at health facilities, which are a best practice to share data to improve program planning and monitoring. These meetings should include community cadres to recognize their contribution to creating demand for facility-based MNH services.
- **Develop strong monitoring systems for FT/YP approaches**: The OFB experience indicates that when given the opportunity, men are willing and eager to play an active role in decision-making around fertility choices, pregnancy, and childcare, beyond the traditional role of providing financially for their family. To enable this more active role, constructive dialogue and communication between husband and wife is essential. First-time parent approaches would benefit from strong monitoring systems that allow for follow-up with young women and men at health service sites to gauge improvements in use of ANC, skilled birth, PNC, and post-partum family planning services among group participants and to contribute to the growing body of evidence on the effectiveness of FT/YP programs.
- **Clarify the criteria for advanced distribution of misoprostol in pregnancy**: The MOH should clarify criteria (beyond what is stated in the 2013 national policy) to ensure that coverage of this life-saving intervention is not limited because of inconsistent interpretation by health workers and managers.

This brief is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement AID-OAA-A-14-00028. The contents are the responsibility of the Maternal and Child Survival Program and do not necessarily reflect the views of USAID or the United States Government.