

MCHIP Country Brief: Madagascar



Selected Health and Demographic Data for Madagascar	
Maternal mortality ratio (deaths/100,000 live births)	500*
Neonatal mortality rate (deaths/1,000 live births)	24
Under-5 mortality rate (deaths/1,000 live births)	72**
Infant mortality rate (deaths/1,000 live births)	48
Contraceptive prevalence rate	4.8
Total fertility rate	4.8
Skilled birth attendant coverage	43.9%
Antenatal care, 4+ visits	49.3%

Sources: World Bank, Madagascar 2008–2009 Demographic and Health Survey, WHO, UNICEF.
 * 2008–2012 reported MMR which is not adjusted for underreporting and misclassification. A 2010 adjusted ratio reports MMR as 240 according to WHO and UNICEF.
 **UNICEF Under-5 mortality ranking (1 = highest mortality rate)

Health Areas

- Maternal Health
- Newborn Health
- Family Planning



Program Dates	September 30, 2008–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of Regions	22%	No. of Districts	66	No. of Facilities	392
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INTRODUCTION

As part of efforts to combat the main causes of maternal and neonatal mortality, which are respectively 498/100,000 live births and 24/1000 live births, MCHIP Madagascar implemented maternal and newborn health (MNH) interventions that aimed to: 1) contribute to improving the quality of MNH care in Madagascar through improved policies, standards, strategies, and implementation approaches; 2) demonstrate an effective scalable model of MNH services, on a household-to-hospital continuum, incorporating innovative technical interventions and implementation approaches; and 3) address system factors that have an important bearing on the effectiveness of service delivery at community and health facility levels.

During the life of the project, MCHIP did not work with public entities given the restrictions imposed by the U.S. Government in response to the 2009 political coup. Therefore, to attain the above goals at the facility level, MCHIP Madagascar employed a strategic approach working through professional health associations and private/faith-based organizations. MCHIP worked at the community level through existing partners, including USAID's Santénet 2 program and local associations such as ASOS (*Action Sociosanitaire et Organisation Secours*), to implement activities. MCHIP established three main objectives:

1. To provide support and technical leadership in maternal, newborn, and child health (MNCH) at the national level;
2. To contribute nationally relevant program learning on integrated community and peripheral health facility approaches to MNH, based on demonstration activities in three districts (Ambatondrazaka, Fénérive Est, and Tolagnanro); and
3. To increase uterotonic coverage to prevent postpartum hemorrhage (PPH) at the health facility and community levels in the district of Fénérive Est.

KEY ACHIEVEMENTS

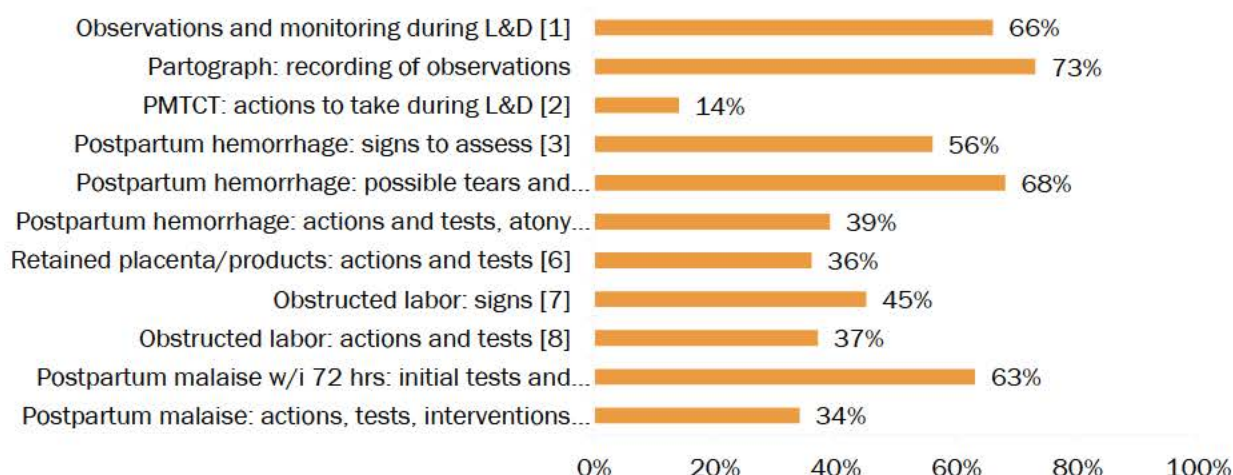
Activities can be divided into three categories:

1. Collecting information to guide activities
2. Conducting MNH interventions according to the country's needs
3. Carrying out interventions to demonstrate best practices for improving MNH in the context of Madagascar

Collecting Information

- A **desk review** included gathering and analyzing information on: the health status of mothers, newborns, and children in Madagascar; interventions conducted to improve MNCH; gaps needing to be addressed to improve health outcomes; and recommendations for MCHIP interventions and activities adapted to the local context.
- A **quality of care (QOC) study of emergency obstetric and newborn care (EmONC)** reported data on health services readiness and the QOC offered by providers for the main causes of morbidity and mortality among mothers and newborns (e.g., knowledge and care of pre-eclampsia/eclampsia, PPH, and infection for the mother; and newborn resuscitation). The findings of the QoC assessment indicated that despite a number of areas of strong performance, gaps remain at all stages of the care of pregnant women and newborns, representing opportunities for action by stakeholders. These findings served to orient the work plan of MCHIP's intervention in Madagascar and was also used as a reference in the development of the national gap analysis in maternal and child health and the national five-year plan for reproductive health. Figure 1 below shows the gap in health providers' knowledge.

Figure 1. Mean Scores for Health Care Providers' Knowledge



- A **baseline survey in three districts** collected general health information, specifically on MNH. Information gathered allowed the project to measure MNH changes throughout the intervention. The main findings show that: magnesium sulfate is not available in all community health centers in the three districts, providers' knowledge about PPH care is low (ranging from 17.2% to 33%), providers' knowledge about pre-eclampsia/eclampsia ranged from 0% to 20%, and knowledge of active management of the third stage of labor was only 8% to 17.2%.

Conducting MNH Interventions

At the National Level

- MCHIP Madagascar shared MNH information and knowledge with MNH stakeholders during health partner coordination meetings and medical and midwifery association meetings, and by collaborating with international and national experts. Topics included good practices in MNH, prevention of the neonatal asphyxia, humanized maternal care, and respectful care. More than 1,114 people benefitted from this information sharing.
- **MNH skills development** was carried out to contribute to the improvement of MNH by strengthening and updating providers' capacity to offer high-quality services. MCHIP Madagascar worked with professional associations, faith-based organizations, and private associations such as Top Reseau, Blue Star, and Santé Sud. Over 15 organizations developed a memorandum of understanding to partner with MCHIP (ONM, Federation des Sages femmes, Somaped, Salfa, SAF, Santé Sud, Mercy Ministry, ASSOS, ACCESS Zon'olombelona, ODDIT, CARE, CROM, ONSF, QMM, EKAR). Activities for MNH skills development include training 51 trainers to then go on and train 873 providers to offer high-quality MNH service at 392 health centers in 19 regions of Madagascar.
- **Post-training follow-up** is an evidence-based practice that aims to maintain a high level of acquired competencies. A total of 89.6% of trained providers received post-training follow-



up. Although time-consuming and expensive, this follow-up is necessary to maintain a high quality of MNH services. Other partner organizations including JSI/Mahefa, Intrahealth and UNFPA will use the same approach for their projects.

Strengthening of pre-service training was implemented by working with 13 private midwifery training institutes (UAZ, ESFI, IFSPA, IFSPR, SEFAM, ESISF SFA, ISPARAMED, INFOSUP, ISMATEC, ESPM, ISCAMEN, ISISFA, INSPAM), and the National Order of Midwives (*Ordre National des Sages Femmes*). MCHIP helped update the midwifery curriculum, improve the management capacity of the private training institute, increase the skills of 37 educators and teachers, and train 13 private institute managers in simulator skills lab management. MCHIP also gave some materials and equipment to 10 private training institutes. At the end of the three-year course, 1,532 midwives are capable of offering high-quality MNH services. Working only with the private sector and *Ordre National des Sages Femmes* limited the impact of the project and made it challenging to change national policy for midwifery schools.

At the District Level

- MCHIP conducted an **MNH intervention** in Taolagnaro, Ambatondrazaka, and Fénérive Est districts to demonstrate the feasibility of an evidence-based practice in the Madagascar context targeting the main causes of maternal and neonatal mortality. MCHIP trained community agents (CAs) in MNH, allowing CAs to offer counseling in danger signs, emergency plans, delivery plans, ANC attendance, and delivering in health care centers. CAs were also trained to perform pre-transfer emergency acts such as reducing PPH using uterine manual compression or skin-to-skin contact to protect the baby. Other CAs from Moramanga and Amparafaravola were trained in community MNH (in total, 756 CAs). With MCHIP support, CAs in the five above-mentioned districts offered services to 6,845 pregnant women, 2,455 women in postpartum, 2,329 newborns; and referred 615 women and 94 newborns. These CAs also benefited from post-training follow-up visit to maintain their competencies.
- The **emergency plan** is a community mechanism conceived to organize and make easier the transfer of patients with health complications from the community to health centers or between two health centers. The emergency plan is composed of five pillars: a decision-making mechanism, a transport mechanism, an urgent funds mechanism, people who help to give blood in case of transfusion and to provide support, and an information system which provides information about the health center and presence of qualified providers. The emergency plan was institutionalized by the mayor in some communes. Within the three districts, 20 of 27 (74%) communes worked with MCHIP to set up emergency plans in Taolagnaro District, 14 of 20 (70%) communes have them in Ambatondrazaka District, and six of 12 (50%) communes have them in Fénérive Est District. Currently, 272 of 389 (69.92%) of Fokontany have functioning emergency plans. The existing emergency plans enabled 615 women to survive from complications. To increase usefulness, the emergency plan should be linked to other community activities such as micro banking which increases the capacity of the member to overcome problems.



- MCHIP Madagascar also **tested registers** to collect data during the delivery and postpartum/postnatal periods. The objective was to improve quality data collection particularly for indicators that track complications. Providers found that registers save time and reduce their workload; registers also remind them of the steps or activities to be carried out during the delivery or postnatal visit. Because all MCHIP interventions were relatively limited in terms of coverage and duration, and were designed to demonstrate feasibility in the local context only, it was difficult to collect outcome or impact data to show changes.

Conducting Evidence-Based Practices

- MCHIP implemented an informative project for **prevention of newborn infection by using chlorhexidine 7.1% in the Mahabo District**. The project had two phases and four components.

- During **Phase 1**, MCHIP partnered with PSI to assure formative research and the protocol received authorization from the Johns Hopkins University Institutional Review Board (JHU IRB and the local Malagasy Ethics Committee). The objectives were to: assess current cord-care practices among women and select influential family members and providers commonly attending and participating in decision-making related to delivery care; assess whether chlorhexidine (in this formulation) is acceptable to women and selected influential family members for cord care; determine any existing or possible future barriers and motivators among women and selected influential family members that might affect the feasibility of using chlorhexidine programmatically for newborn umbilical cord care; and assess the willingness among women and selected influential family members to pay for chlorhexidine at multiple price points and places of distribution. **Phase 1** resulted in the brand name (AroFoitra) and a logo, as well as information about the knowledge, attitude and practice about cord care.



Simple instructions for the application of CHX included in each insert of the medication

- **Phase 2** was implemented by the USAID-funded Malagasy Healthy Families (JSI/MAHEFA) Project at the community level. MCHIP is still involved through the technical working group and ensures technical compliance of the project. The technical working group included UN partners with USAID projects (JSI/MAHEFA and a primary health care project, MIKOLO) and plans to scale up the program to their intervention zones.
- The second informative project is the introductory program **to increase uterotonic coverage for prevention of PPH at births in health facilities and at home in Fénériver Est District**. MCHIP received authorization from the JHU IRB and local ethic committee. The aim of this project is to generate evidence and inform future policy on the expansion of uterotonic coverage for all women giving birth to prevent PPH using both facility-based and community-based approaches. MCHIP requested an amendment for the protocol timeframe to be extended in Fénériver Est and for Vohemar District to be added. The project in Vohemar is slightly different from the Fénériver one in that MCHIP is working with the JSI/MAHEFA Project to test an integrated program of PPH prevention using misoprostol and newborn infection prevention using chlorhexidine 7.1% at the community level. Due to the post-coup restrictions issued by USAID, the project was only



implemented at the community level. Information collected from the Fénérive project shows that the intervention is feasible and acceptable for both the health agent and beneficiary (see Table 1 below). For pregnant women registered by CAs, 56.9% (2,788 of 4,903) received misoprostol (Famonjy) during a home visit (distribution coverage) but 78.3% (2,182 of 2,788) effectively used the product (protection coverage). As the two projects were integrated in Vohemar, the scope of work of the chlorhexidine technical working group was changed to include misoprostol. The group will work to change MNH policy to include misoprostol and chlorhexidine 7.1% programs as essential interventions to improve MNH in Madagascar.

Table 1. Women’s Reported Satisfaction with Misoprostol among Enrolled Women Interviewed Postpartum Who Received Misoprostol, Delivered at Home and Ingested the Drug (n=1,920)

INDICATOR	NUMBER	PERCENTAGE (N=1,920)
Women Who Expressed Satisfaction With Misoprostol		
Would recommend to a friend or relative	1,919	99.9%
Plan to use in future deliveries	1,919	99.9%
Be willing to pay between 500 and 1500 ariary	1,755	91.4%

WAY FORWARD

Despite the restrictions concerning work with the government, MCHIP succeeded in showing results that are worth consideration by the Ministry of Public Health and MNH implementing partners. The innovative approaches outlined in this report can be duplicated in resource-scarce countries.

- Favor a long-term vision in human resource development by promoting appropriate and operational training activities (e.g., improving the teaching skills of educators and reviewing educational programs to fit with the needs of the country and the International Confederation of Midwives norms).
- Invest in private/nongovernmental and faith-based organizations to improve health services in cases where the public sector does not succeed in responding to health demands of the population.

Organizations and programs funded by USAID should assure the continuity of these promising interventions that can improve the health of vulnerable populations.