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MCHIP Maternal and Child Health Integrated Program

## MALARIA COMMUNITIES PROGRAM

# Malaria in Pregnancy:
## Improving Intermittent Preventive Treatment in Pregnancy (Second Dose) and Antenatal Care Coverage

## INTRODUCTION

Malaria infection during pregnancy has potentially deadly consequences for both the mother and the baby, accounting for an estimated 26% of severe maternal anemia in sub-Saharan Africa[1] and causing an estimated 200,000 infant deaths each year through low birth weight.[2] Multiple research studies have clearly demonstrated the effectiveness of intermittent preventive treatment in pregnancy (IPTp) in reducing maternal malarial infections, maternal anemia, and neonatal mortality.[3,4,5,6,7] IPTp is now the standard of care in almost all malaria-endemic countries in Africa,[6] and considerable progress has been made to prevent and control malaria in pregnancy (MIP). However, most countries are still far from achieving target goals of 85% for IPTp uptake and insecticide-treated net (ITN) coverage. Recently the World Health Organization's Malaria Policy Advisory Committee issued new guidance for the use of sulfadoxine-pyrimethamine (SP) for IPTp, which affords countries a new opportunity to build on existing program efforts to achieve higher uptake of IPTp and ITN coverage among pregnant women. The President's Malaria Initiative (PMI) is helping countries achieve their malaria goals by strengthening health care delivery systems, including antenatal care (ANC). PMI supports a multi-pronged approach to MIP including administration of IPTp with SP, consistent

**The Malaria Communities Program**

The Malaria Communities Program (MCP) was launched on December 14, 2006. Through 20 awards to 18 partners in 12 countries, the President's Malaria Initiative (PMI) has supported efforts of communities and nongovernmental organizations to combat malaria at the local level.

The MCP has increased local and indigenous capacity to undertake community-based malaria prevention and treatment activities; built local ownership of malaria control for the long term in partnership with communities and National Malaria Control Programs (NMCPs); and extended coverage of PMI and NMCP interventions to reach a larger beneficiary population.

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[5] Shulman CE, Dorman EK, Cutts F, Kawuondo K, Bulmer JN, Peshu N, Marsh K. 1999. Intermittent sulphadoxine-pyrimethamine to prevent severe anaemia secondary to malaria in pregnancy: A randomised placebo-controlled trial. *The Lancet* 353(9153): 632–636.

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use of ITNs, and prompt and effective case management of malaria. Bridging the link between communities and health facilities is a key component of PMI's Malaria Communities Program (MCP) projects, and partners have made notable progress in doing so for MIP. They have promoted IPTp uptake through strengthening a platform of ANC and integrated MIP services and through facilitating relationships between community health workers (CHWs), village health teams (VHTs), traditional midwives/birth attendants (TBAs), and health facility workers.

## METHODS AND DATA

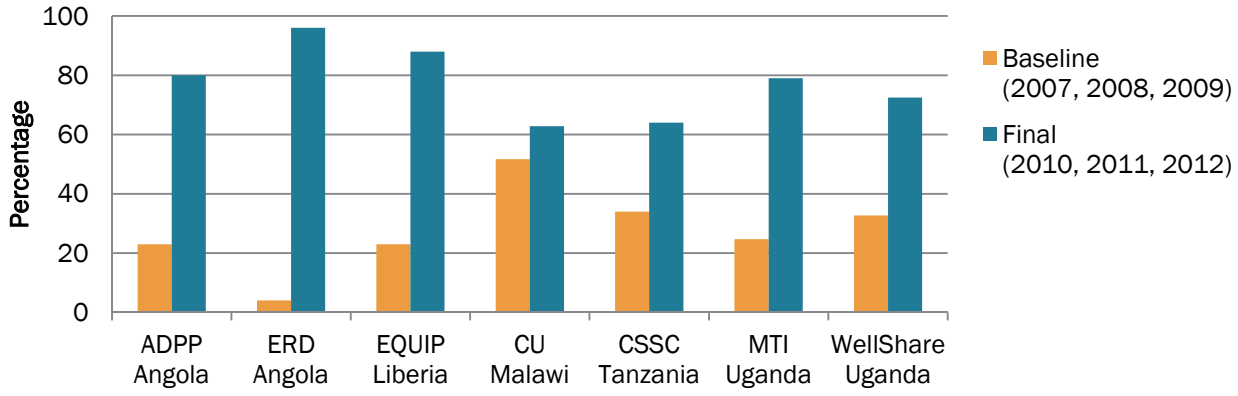
This case study focuses on four MCP partners and their contributions to improving the second dose of intermittent preventive treatment in pregnancy (IPTp2) and ANC coverage: Medical Teams International (MTI) Uganda, Episcopal Relief and Development (ERD) Angola, Caritas Senegal, and the Catholic Medical Mission Board (CMMB) Zambia. MCHIP collected multiple forms of data from each MCP partner using qualitative methods, including individual interviews with key project personnel and review of key documents. MCHIP then compared data across organizations to better understand the total contributions made by the MCP. Some partners conducted surveys and relevant quantitative data are included in this report. Data are limited by a lack of standardized reporting on this topic.

Although MIP interventions comprise more than IPTp and ANC, the three sub-themes emerging from this review are: 1) mobilizing communities to increase ANC and IPTp uptake; 2) using behavior change communication (BCC) to inform women and their families about the importance of ANC and IPTp; and 3) improving access to quality ANC services.

## KEY FINDINGS

Chart 1 shows results from MCP projects that collected survey data regarding IPTp, and indicates significant improvements in coverage in those project areas.

**Chart 1. Percentage of women taking at least two doses of IPTp in last pregnancy***




*Definitions vary slightly and may include current pregnancy or recall from last pregnancy.

## Community Mobilization

Photo by Jhpiego

This case study refers to community mobilization as a capacity-building process through which community individuals, groups, or organizations plan, carry out, and evaluate activities on a participatory and sustained basis to improve their health and other needs, either on their own initiative or stimulated by others.[8] MCP partners integrated these principles into their community mobilization efforts aiming to expand coverage of effective malaria prevention and treatment measures to pregnant women and children under five.

For example, the MTI program in Uganda mobilized female VHT members to play a critical role in addressing MIP. A total of 611 female VHTs supporting a catchment area of 31 ANC facilities received additional training on Goal-Oriented Antenatal Care that included IPTp promotion, SP administration, and ANC intake procedures. In addition to conducting health education sessions with mothers and community mobilization activities, female VHTs assisted health facility staff at ANC clinics by completing patient intake reports and assisting with dispensing SP for directly observed therapy of IPTp. As a result, the percentage of mothers of children 0–23 months in MTI's project area who received two or more doses of IPTp during their last pregnancy increased from 24.7% to 70% during the project. MTI is now working with the VHTs to address ANC more broadly, promoting facility births and encouraging male involvement in maternal and child health care-seeking. In addition, the presence of female VHTs has made women more comfortable going to ANC visits.

***"Before the project, most illiterate mothers would not visit ANC because of fear … but now the fear is gone and most women are happy to deliver at the health centres … It is important to note that this change is as a result of the work of female VHTs."***

**—Health Centre In-charge, Awiri HCII, Dokolo District**

MCP projects were also successful in mobilizing local leaders and respected community members such as TBAs to help promote the importance of IPTp among women and in the community. For two years, ERD Angola piloted a program that delivered community-based IPTp through TBAs. National policy in Angola limits the role of TBAs but ERD received permission from national authorities to train and work with TBAs during the first phase of their project, a strategy designed to mitigate the great distances between rural villages and maternity units in the project area by bringing services to the rural villages. The project trained 1,000 community activists, 300 local leaders, and 516 TBAs and supported them to conduct household, church, and school visits providing information about malaria prevention and treatment, including IPTp. In an interview with the Provincial Coordinator for Uige, he referenced an increase in IPTp coverage in ERD project areas and linked this to ERD's community mobilization efforts.

CMMB Zambia engaged and trained 67 local leaders, linking them with health facility staff through community mobilization efforts. The local, or traditional, leaders were village headmen and headwomen, each of whom was selected by the community and approved by the village chief. Traditional leaders are the custodians of laws and regulations, and determine what

[8] Eisele TP, Larsen DA, Anglewicz PA, Keating J, Yukich J, Bennett A, Hutchinson P, Steketee RW. 2012. Malaria prevention in pregnancy, birthweight, and neonatal mortality; a meta-analysis of 32 national cross-sectional datasets in Africa. *The Lancet*. Published online September 18, 2012.

activities take place in their communities. CMMB needed the approval and support of those influential community leaders to implement MCP project activities. The approach was three-fold:

1. Organization of volunteer clusters with one traditional leader and one trained health worker to sensitize people about using nets, seeking ANC services, and encouraging IPTp uptake. The group was trained together to promote linkages and collaboration.
2. Participation of traditional leaders in drama groups, which lend credibility to the messages.
3. Community mobilization activities led by traditional leaders and coordinated with the health facility workers, so as to familiarize health facility workers with the targeted communities.

Traditional leaders encouraged both men's and women's participation in community mobilization activities and CMMB noted an improvement in health knowledge and practices during pregnancy and delivery. The District Health Officer in Zambia's Samfya District said that "through the sensitization we find that even males are now involved and come together to ANC sessions." Further, Health Management Information System data show that coverage of two doses of IPTp increased from 47% to 61.5% over the life of the project. The CMMB Project Director reported, "We've done this [increased demand for quality ANC services] through drama and health education."

## Behavior Change Communication

Interpersonal communication can promote the importance of preventing malaria during pregnancy. Because of their presence in communities, MCP partners were well-positioned to develop and implement effective interpersonal BCC. All projects trained community health volunteers to reach pregnant women during home visits, where key messages on MIP and IPTp were shared. Caritas Senegal trained 90 health hut nurses to conduct community outreach. ERD Angola focused on house-to-house visits, with community health volunteers following pregnant women in their villages to ensure they received ANC services including IPTp.

MCP partners also supported mass media and group communication channels. MTI Uganda promoted greater male involvement in MIP education efforts as a critical focus of BCC activities. The project conducted drama shows and community meetings targeting husbands to support their wives to attend ANC. This proved to be an effective strategy in gaining support among men for key malaria messages. The head of maternity at Agwata Health Center III reported that more husbands are accompanying wives to ANC and some are also coming with their wives for delivery. The MTI Uganda MCP Project Director commented that "some [interventions] are easier to implement when husbands have heard it, especially ITN and maternal nutrition." ERD Angola helped address challenges in ANC services, such as low IPTp uptake, through community meetings and used health education activities to engage leaders of the village to support the sensitization efforts of community health workers.

MCP partners targeted their MIP BCC messages. Caritas Senegal's BCC strategy alerted communities to the dangers of not attending ANC clinics and ensured that women understood the *preventive* purpose of such visits. ERD Angola focused its BCC efforts on two of the most critical messages delivered to communities through multiple communication channels: the danger malaria poses to mother and fetus, and the importance of health facility access to prevent malaria during pregnancy. ERD's MCP Project Coordinator in Angola noted that because TBAs were accompanying women to ANC, there were subsequent increases in numbers of women attending ANC services.

## Access to ANC Services

MCP partners helped to improve access to quality ANC services. The Provincial Coordinator from the Ministry of Health (MOH) in Angola explained, "Community workers and TBAs help link the pregnant women to health facilities to promote access to IPTp services and ANC." For example, TBAs trained by ERD Angola provided counseling to pregnant women and encouraged them to access ANC and IPTp services and to use nets. They routinely monitored pregnant women, referring complicated cases to facilities early, and after delivery, ensuring both mother and newborn were thriving.

MTI Uganda reported improved IPTp coverage and a strengthened connection between communities and health facilities in its project area. Female VHTs educated women about the dangers of MIP, gave counseling for prevention and treatment-seeking, and encouraged pregnant women to seek ANC care early and frequently at a health facility. MTI facilitated links between VHTs and health facilities so that VHTs could assist nurses and midwives, thereby reducing staff workload and wait times at ANC clinics. Impressed by the results of these efforts, midwives and facility staff have incorporated VHTs into their services.

*Photo by Jhpiego*

In Senegal, the MOH implements a "Health Hut" model—a community-based structure providing basic services through outreach from higher-level health facilities and through a local community health agent. Caritas Senegal expanded the Health Huts network in its catchment areas and promoted their use in communities. The project supported outreach visits by health facility staff to the Health Huts for ANC and immunization services and leveraged these services as an entry point for malaria control, including administration of IPTp during ANC. Caritas also increased access to health facilities for malaria prevention and treatment by providing community-managed motorcycle ambulances, which were used to transport pregnant women for ANC and delivery, further improving access to IPTp and also providing critical emergency transportation to health facilities for severe malaria cases.

# CHALLENGES

The supply of MIP commodities is a major challenge across countries. MCP projects tried to improve ANC services by coordinating and linking to the national commodity supply chain, but were unable to directly affect the supply of commodities to the health facilities in their project areas. All MCP partners expressed frustration over the lack of resources and infrastructure at health facilities. SP was either not delivered or was frequently out of stock. Health facility staff were often poorly trained or equipped, or the nearest health facilities lacked a maternity unit or a trained midwife. The ERD Angola project areas experienced stock-outs of SP for the first two years of MCP project implementation until ERD arranged to transport the drug to facilities on behalf of the National Malaria Control Program. In Senegal, pregnant women had to buy SP from private drug vendors when ANC clinics were out of stock. Despite this challenge, Chart 1 shows that several MCP project areas noted a significant increase in IPTp coverage at the end of those projects, which may be a testament to MCP partners' efforts to strengthen other aspects of the health system, including demand for MIP-related services. While communities do not have control over commodity procurement, community leaders can advocate with health facility staff to prioritize key products and services including administration of SP for IPTp and provision of ITNs for pregnant women at ANC.

## KEY MESSAGES

MCP partners' contributions to improvements in IPTp2 and ANC coverage illustrate their significant roles in addressing MIP.

- **MCP partners built partnerships between communities and health facilities to improve access.** As exemplified by strategies such as VHTs accompanying pregnant women to health facilities and assisting midwives in administration of IPTp, when communities and facilities work together the partnership yields not only improved outcomes but also improved attitudes among providers and clients. MTI successfully expanded the MOH package of VHT services to address malaria in pregnancy in their project area.
- **MCP partners strengthened community capacity to increase coverage of MIP-related services.** Training community leaders (e.g., village health workers, TBAs) can support increased coverage of key MIP interventions, as seen in CMMB Zambia's project, which linked traditional leaders and health facility workers to promote services among community members. The development of a community ambulance to increase access to ANC and delivery services in Caritas Senegal's project area is another example of strengthened community capacity to improve coverage. Finally, MTI Uganda promoted increased trust in facility health workers through VHTs in communities and documented increased coverage of IPTp and facility deliveries in their project area.
- **MCP partners implemented interpersonal communication strategies to increase demand for and use of MIP-related services.** To overcome some of the critical barriers in MIP programming, MCP partners developed innovative methods to address cultural and communication barriers that prevented pregnant women from accessing services to prevent and treat malaria during pregnancy. These included intensive training of community members and community leaders as influential key informants to deliver MIP-related messages during household visits and community events. MCP partners' efforts to strengthen the links between communities and health facilities may also have increased demand for and use of services.
- **MCP partners encouraged male participation to increase coverage of MIP-related services.** MCP partners engaged men to reduce barriers to women's access to MIP-related services. CMMB Zambia and MTI Uganda involved men in training and community mobilization activities that helped to strengthen communities' capacities to address MIP.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