

TECHNICAL BRIEF

Net Gains in Malaria Prevention

In Madagascar, a new approach to distributing long-lasting insecticide-treated nets (LLINs) achieves near universal coverage in high-risk areas

In Madagascar, malaria is endemic in 90 percent of the country, with severe cases among the top five causes of reported mortality according to a 2018 country profile by the U.S. President's Malaria Initiative (PMI).ⁱ

Data from 2013 and 2016 suggests the country is making progress against the disease, with malaria prevalence in children under five years of age dropping from 10 to 5.2 percent between 2013 and 2016. Data from the country's Health Management Information System from late 2015 through 2016 shows reductions of 39.1 percent in malaria incidence and 60.4 percent in malaria-related mortality.ⁱⁱ Despite making progress, recent data (HMIS 2017 and 2018) suggests increases in the disease. Therefore, malaria prevention initiatives remain critical.



Loading LLINs at the central warehouse in Antananarivo, the capital. Photo credit: Claudia Rakotonirina/GHSC-PSM

Seeking to protect the population in malaria-prevalent districts, the country runs multiple malaria-control interventions, from indoor residual spraying (IRS), distribution of long-lasting insecticide-treated nets (LLINs), and diagnosis and treatment with artemisinin-based combination therapies (ACTs) to intermittent preventive treatment in pregnancy (IPTp).

Mass LLIN distribution campaigns are a proven, cost-effective method to rapidly achieve high and equitable LLIN coverageⁱⁱⁱ. PMI and the Global Fund to Fight AIDS, Tuberculosis, and Malaria, provided financial assistance for the 2018 campaign in Madagascar in support of effective malaria prevention throughout the country.

In 2018 we achieved simultaneous LLIN distribution in 106 of 114 districts in Madagascar for the first time. This allowed for a more efficient use of available resources toward achieving universal LLIN coverage in Madagascar (one LLIN for every two individuals at risk). In addition, simultaneous country-wide distribution allowed for improvements in all aspects of the campaign including warehousing and transportation, monitoring and evaluation (M&E), and community engagement. Key strategies and results of the 2018 LLIN campaign are summarized below and build on challenges and lessons learned from previous campaigns.

Challenges From the 2015 Campaign

Facing the largest distribution campaign in its history, the government was eager to overcome the challenges of the past, including:

- Insufficient ownership by the Ministry of Health, leading to difficulties in management and implementation
- Lack of coordination among multiple funding streams (e.g., PMI, GF, USAID) leading to problems in planning and management
- Planning at the regional level without input from districts
- Training curriculum, materials, and tools not ready on time, delaying critical activities
- Unsupervised pre-campaign activities due to funding constraints
- Delays in census and household data collection, leading to redeployment of LLINs and unplanned transportation costs
- Insufficient collaboration between the Ministry of Health and local NGOs, particularly in resolving post-campaign activities (due to contract limitations)
- Poor campaign reporting and data management
- Insufficient training on funds management, leading to unallowable expenses and lack of motivation
- Difficulties making payments to peripheral-level actors

To address these challenges in the 2018 campaign, GHSC-PSM developed and followed a structured process described below.

2018 Campaign Activities and Results

Leadership. We strengthened the National Coordination Committee (CNC) to improve campaign management. The CNC established clear roles and responsibilities across new CNC subcommittees in five areas: implementation, logistics, communications and behavior change, M&E, and financial management. These subcommittees helped drive a stronger and more deliberate focus on planning and oversight. LLIN distribution data, consolidated across funding streams and available in near-real-time, supported informed and timely leadership decision making and course correction. Using these data, the government and GHSC-PSM applied collaborative approaches to planning, warehousing, and transportation efforts. They also designed dedicated LLIN committees at regional, district, and community levels to improve



Women's groups helped ensure inclusion of women in planning, training, and mobilization. Above, images from campaign materials by the Conseil National des Femmes de Madagascar.

campaign activities. The CNC included representatives from the public and private sectors, and included women's groups to ensure broad community involvement in the campaign. In order to ensure effective coordination at regional, district and community levels, clear roles and responsibilities should be strengthened for the next campaign.

This new approach increases MOH ownership at each level and for each actor. The introduction of Assistant Communal de la Campagne MID (ACCMID) as a focal point at community level facilitates smooth coordination and implementation. The Chief of the health center led the training and payment of community actors. The District Health Service and Regional Health teams are closely involved in the supervision and coordination of the LLIN Campaign in the field.

Integration. The CNC led the development of a campaign work plan, budget, and reporting system spanning all donor funding sources which allowed for increased transparency in campaign activities at all levels. Coordination between PMI and GF to implement a unique approach, provide cross-cutting funding, and conduct cross supervision were a critical initiative that made this campaign successful.

GHSC-PSM organized and conducted training to prepare districts for comprehensive campaign activities. Training modules included traditional topics such as planning, warehousing, and distribution as well as new topics including risk and waste managements.

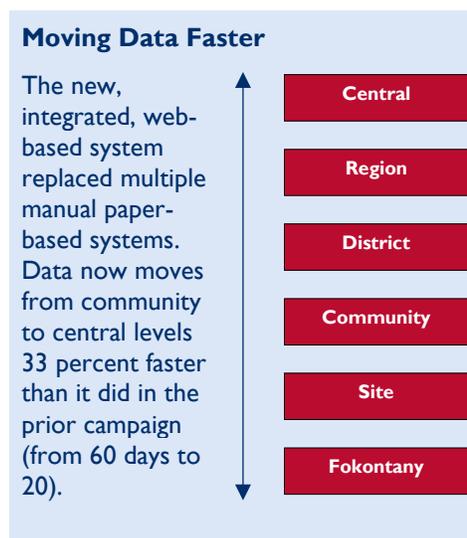
The trainings introduced participants to updated and standardized campaign roles and procedures and provided them with the results of the country's first malaria commodities quantification workshop in 2017. Sharing and explaining the quantification methodology and results to participants was important, as it provided context for justifying the decrease of malaria cases for the next three years after completion of the campaign. The trainings also included updated supervisory and reporting tools.

District-level planning. Campaign participants were able to build plans targeted for their districts with location-specific techniques for outreach and community mobilization. These localized approaches ensured strong turn-out by the community to collect LLINs.

Other improvements to strengthen district-level implementation included:

- District-level coordinating committees
- Faster commodity-related data transfer speeds (see box)
- Mobile and web-based data management tools
- SMS (short message service) communication
- Mobile banking

GHSC-PSM continuously documented and shared weekly updates on the status of distribution throughout the campaign to inform corrective actions to keep activities on track.



Madagascar achieved its LLIN campaign goal: 13 million nets were delivered by 103,000 campaign workers to 106 districts and 7,701 distribution sites, protecting individuals in 5.9 million households from malaria.

Challenges, Lessons, and Recommendations From the 2018 Campaign

The 2018 LLIN campaign was a great success for Madagascar. The activities outlined in this document are being developed as standard operating procedures that will inform the 2021 campaign.

At a government-sponsored post-campaign workshop in late 2018, participants identified lessons learned and recommendations for the 2021 campaign focused on coordination, logistics, coaching, and monitoring and evaluation:

Coordination

Challenges:

- Assuring government instructions are timely
- Reducing administrative and financial tasks at the district level
- Increasing involvement by district-level coordinating committees
- Assuring sub-committees understand their role and are able to perform their function
- Improve communication and coordination between central, regional, district and community levels

Recommendations:

- Support a culture of information-sharing across central, regional, district, and community campaign teams
- Anticipate district-level administrative and financial support requirements
- Engage district-level participants in supervision and problem resolution

Logistics

Challenges

- Lack of real-time LLIN transportation data
- Planning compromised by customs strike and post-cyclone travel challenges
- Risk of theft during transportation

Recommendations

- Improve consolidation of sector and population data by the government
- Anticipate delays associated with custom clearance and transportation and develop mitigation activities during campaign planning
- Hire staff to ensure safety of convoys during transportation to sites

Coaching

Challenges

- Limited time for supervision and coaching by regional support teams
- Lack of understanding of regional support team roles by districts and communities

Recommendations

- Increase time allotted for regional support teams to supervise and coach district teams
- Provide community managers with guidance on roles and responsibilities of regional support teams
- Ensure supervision funds arrive on time at District level

Monitoring & Evaluation

Challenges

- Delays in placement of equipment leading to delays in application development (servers, desktops, laptops, phones)
- Skill gaps among district staff selected to conduct the campaign
- Data operators were not paid on time, leading to delays in data collection and transmission

Recommendations

- Confirm technology is in place prior to application development
- Share hiring criteria with all participants well before personnel selection
- Increase governments skills in ensuring payment via mobile banking

Financial management

Challenges

- Challenges with mobile money transfers and cash point coverage
- Complicated financial processes that changed as activities were being implemented
- Cross-cutting funding between GF and PMI for specific activities
- Delays in processing payments to the beneficiaries

Recommendations

- Coordinate with the mobile provider prior to the start of the campaign
- Establish realistic procedures during the pre-campaign exercise
- Ensure that each zone is receiving funding from only one donor
- Reduce time to process payment to campaign actors

ⁱ Madagascar profile, 2018, President's Malaria Initiative, www.pmi.gov/docs/default-source/default-document-library/country-profiles/madagascar_profile.pdf?sfvrsn=20

ⁱⁱ President's Malaria Initiative. Madagascar Malarial Operational Plan 2018. <https://www.pmi.gov/docs/default-source/default-document-library/malaria-operational-plans/fy-2018/fy-2018-madagascar-malaria-operational-plan.pdf?sfvrsn=5>

ⁱⁱⁱ World Health Organization 2017. *Achieving and maintaining universal coverage with long lasting insecticide-treated nets for malaria control.*