

Supporting the scale-up of seasonal malaria chemoprevention in Mozambique

Lessons learnt from a knowledge exchange between
Nigeria and Mozambique

Key learning

- Knowledge-sharing between countries, such as insights regarding coordination with partners, supports successful planning and implementation of seasonal malaria chemoprevention (SMC) in new geographies.
- A dedicated task force, such as an SMC technical working group that discusses and disseminates campaign results, is essential to guide the rollout of SMC in a new location.
- Integrating SMC into the national malaria strategy supports sustainable funding for SMC from diverse donors as well as domestic resources.

Background

Seasonal malaria chemoprevention (SMC) is a highly effective intervention to prevent malaria infection during the peak transmission season in children under five. SMC involves the regular and repeated administration of antimalarial medicines, which are typically delivered door-to-door by volunteer community distributors.^[1] Since 2012, the intervention has been recommended for scale-up by the World Health Organization (WHO) in the Sahel.^[1]

In 2022, the WHO issued updated guidelines on malaria that provide greater flexibility to malaria-endemic countries to adapt chemoprevention strategies to the local context using local evidence. They also no longer define geographic restrictions, which opens up the possibility of using SMC in areas outside of the Sahel where malaria transmission is seasonal.^[2]

Between 2020 and 2022, Malaria Consortium and the National Malaria Control Programme (NMCP) conducted a phased, hybrid implementation study in four districts of Nampula province in Mozambique, in response to the inclusion of SMC in the country's national malaria strategic plan.^[3] This involved the administration of four monthly courses of sulfadoxine-pyrimethamine (SP) and amodiaquine (AQ), known as SPAQ. Despite the high levels of resistance to SP observed, the study concluded that SMC in Nampula province was feasible, acceptable and effective during the high transmission season. In total, 120,000 children were reached with SMC with no serious adverse events reported. Study results will be published in peer-reviewed journals over the coming months.

Keen to expand SMC using an approach tailored to their specific circumstances, Mozambique arranged a knowledge exchange with Nigeria, which has more than a decade of experience in implementing large-scale SMC campaigns. Nigeria has the highest number of children reached with SMC, which has been successfully integrated into the national malaria strategy. Malaria Consortium has an established relationship with the National Malaria Elimination Programme (NMEP), who leads SMC implementation in the country with support from Malaria Consortium and other partners.

Guided by the lessons gathered during the Nigeria visit, Mozambique's NMCP increased the scale of SMC during the 2022/23 high-transmission season, targeting 1.3 million eligible children across all districts in Nampula province, with Malaria Consortium providing technical assistance.

Project activities

In August 2022, a delegation comprising Mozambique's NMCP, local health authorities and Malaria Consortium staff visited Nigeria to gather practical knowledge on effective SMC scale-up, and to establish ways of exchanging knowledge in the future. The delegation undertook a field trip to Nasarawa state and to the Federal Capital Territory, where they observed SMC distribution.

The delegation took part in key activities including participation in local government area review meetings, visits to communities and health facilities, observing SPAQ administration and stock management practices for SPAQ, record checks, and discussion with community distributors about how eligible children are reached. Additionally, the delegation met with NMEP representatives, attended presentations by SMC implementers, and participated in a state-level end-of-cycle review meeting to observe how the meetings support data-driven decision-making.

The main objectives of the visit were to:

- understand data management and costs of SMC implementation
- investigate cooperation mechanisms for SMC implementation between the NMEP and other government departments, health authorities at state and district level, and implementing partners
- learn how Nigeria has integrated SMC into the national health system, to achieve sustainable campaign costs at scale
- learn from any successes and challenges of Nigeria's SMC programme and adapt learning to Mozambique's context.



A caregiver administers SPAQ to her child, Nigeria

Lessons learnt

- SMC campaigns are most efficient and sustainable when led and owned by national malaria programmes, with technical support from partner organisations. In Nigeria, the NMEP has full ownership of the SMC campaign and can, therefore, allocate resources most effectively. Malaria Consortium as a partner is more effective when we provide technical and logistical support, carrying out activities jointly with partners at different administrative levels. In Nigeria, we play an important role in managing processes, identifying and supporting solutions to bottlenecks.
To replicate government ownership in Mozambique, the delegation reviewed and adapted the role of Malaria Consortium staff to that of technical advisers. In this capacity, they are able to support management of the implementation process, rather than function as implementers in the field.
- Technical working groups improve communication and cooperation, and provide oversight and technical guidance. In Nigeria, an SMC technical working group (TWG) has been vital for the successful implementation of SMC campaigns. TWGs provide a forum for high-level stakeholders to discuss implementation results, funds and sustainable implementation on a regular basis, troubleshooting issues as they arrive and allowing for agile adaptations.
Mozambique established an SMC TWG in Nampula as a forum for ongoing discussion (particularly around data for decision-making), advocacy and dissemination with key stakeholders. Crucially, this group has been central to discussions on how best to integrate SMC into the Ministry of Health's new malaria strategic plan.
- Integrating SMC into national malaria strategies and policy is key for scaling up. SMC is an integral component of Nigeria's malaria strategic plan. This has encouraged buy-in from different stakeholders, promoting sustainability in terms of coordination, leadership and funding. In Mozambique, based on the SMC study results so far, the NMCP has included SMC in the next national malaria strategy, which will support similar coordination, leadership and funding opportunities in the future.
- Adapting to the local context achieves better coverage and higher quality of SMC implementation. Nigeria's successful delivery of SMC in Borno state, a conflict-affected setting, highlighted that adaptive and flexible approaches are critical to mitigate logistical challenges relating to the delivery of medicines and reaching eligible children.^[4] This is particularly relevant in light of increasing levels of insecurity in northern Mozambique. Based on Nigeria's experience, Mozambique learned that regular risk assessment is crucial to ensure safe implementation of SMC activities.

Outside of insecurity, a common reason for SMC medicines not being administered is that children and caregivers are absent from their homes when community distributors visit. Nigeria adjusted household visits to fall between Friday and Monday, as they found children and caregivers were more likely to be at home over the weekend. Taking this learning on board, and accounting for seasonality, similar adjustments were made to the SMC distribution schedule (Thursday to Sunday) in Mozambique.

- Using existing last-mile distribution mechanisms and infrastructure reduces SMC implementation costs. Nigeria successfully scaled up SMC using existing health system mechanisms and infrastructure, thus ensuring both sustainability and cost-effectiveness. The Mozambique delegation learned that integrating last-mile distribution into Nigeria's National Procurement Management System reduced SPAQ transportation costs. In turn, the Nigeria team learned that Mozambique makes use of local structures, with traditional leaders and local government authorities able to make decisions to strengthen campaign delivery. This provided fresh insights into ways to improve on existing mechanisms in Nigeria.
- Digitalising SMC campaigns improves efficiency. The delegation learned that Nigeria's SMC campaigns have digitised certain activities. Daily electronic attendance sheets, rather than paper-based forms, are used to capture and report campaign data. Community distributors can access attendance sheets on their own smartphones, and supervisors can use them to monitor community distributors' movements during SPAQ distribution. Data are stored in a centralised database that records all activities during implementation, with automatic data analysis. The Mozambique delegation observed how digitising activities has contributed to improved data quality and broader digitalisation of SMC campaigns. Digitised data are a valuable source of information for post-campaign reviews, and community distributors, supervisors and decision makers are increasingly using these data and insights for improved decision-making and adaptations.

Recommendations

This visit highlighted important lessons around what is needed to scale up a mass campaign such as SMC. The recommendations below outline key next steps for Malaria Consortium in Mozambique and the Ministry of Health. However, they are relevant and applicable to other countries looking to scale up SMC, particularly in light of the WHO's updated Guidelines for Malaria,^[2] which encourage national malaria programmes to expand access to chemoprevention.

- 1. Support Mozambique's Ministry of Health to include SMC in the Malaria Strategic Plan 2023–2030.** Appointing a focal point for SMC in the NMCP structure at national and provincial levels will facilitate coordination with different states and donors to ensure the programme is in line with the country's malaria strategy. Evidence produced from Mozambique's implementation study can inform this alignment and be used to encourage support from stakeholders around coordination, funding and leadership.
- 2. Support the Ministry of Health to lead an SMC TWG to facilitate coordination with implementing partners.** Having a dedicated platform for ongoing SMC discussion, advocacy and dissemination will facilitate and encourage greater involvement among communities and governments.
- 3. Adjust planning processes to account for increased activity and the local context.** Adapting distribution to respond to evolving conflict situations, or to coincide with days when most eligible children are present, will support better coverage.
- 4. Initiate a dialogue between NMCP, Malaria Consortium and other stakeholders in Mozambique on SMC digitalisation** to support improved data collection and monitoring of community distributor movements during SPAQ distribution.

References

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Cover image: SPAQ distributor showing caregiver how to administer the medication

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