

Maximising resources for healthcare: Integrating vitamin A supplementation with seasonal malaria chemoprevention

- The integration of seasonal malaria chemoprevention (SMC) campaigns with vitamin A supplementation (VAS) can significantly increase VAS coverage and can be achieved at a minimal additional unit cost to the current SMC campaign.
- The integrated campaign is safe, equitable and does not compromise the quality and coverage of SMC delivery.
- Learning from the evidence-based integration of SMC with VAS should inform new policy guidance on the National Malaria Elimination Programme's (NMEP) SMC strategy.

Background

In Nigeria, malnutrition is the underlying cause of at least half of all deaths in children under the age of five.^[1] A contributing factor to malnutrition is vitamin A deficiency (VAD), which affects 30 percent of under-fives.^[2] VAD is particularly threatening to child survival because it worsens clinical outcomes for children affected by common illnesses, such as diarrhoea and pneumonia. In these instances, children who have clinical signs of VAD are 3–12 times more likely to die than those who are non-deficient.^[3] To address VAD, the World Health Organization (WHO) recommends that high-dose VAS is given every 4–6 months to children between the ages of six and 59 months — this has reduced under-

five mortality by 24 percent.^[4] VAS has been delivered primarily during the biannual Maternal, Newborn and Child Health Weeks. However, there have been significant problems in reaching all eligible children in the allotted time, resulting in an average coverage of only 45 percent.^[5]

Malaria Consortium is a leading implementer of SMC in Nigeria, which has been recommended as a malaria prevention strategy for children 3–59 months since 2012.^[6] SMC is safe, cost-effective and is delivered at scale by community distributors and health workers. In 2020, around 85 percent of eligible children received SMC medicines from community distributors each month^[7] — significantly higher than the current VAS coverage.

Our view

VAD among children under five is preventable and treatable. We believe that integrating our SMC campaign with VAS will contribute to a reduction in under-five deaths attributable to malnutrition, as fewer of these children will suffer from VAD. Given the current scale of SMC in Nigeria, SMC is a viable platform for increasing the coverage of VAS. In 2021, we reached around 16 million children in the country — just over a third of all children reached globally that year.

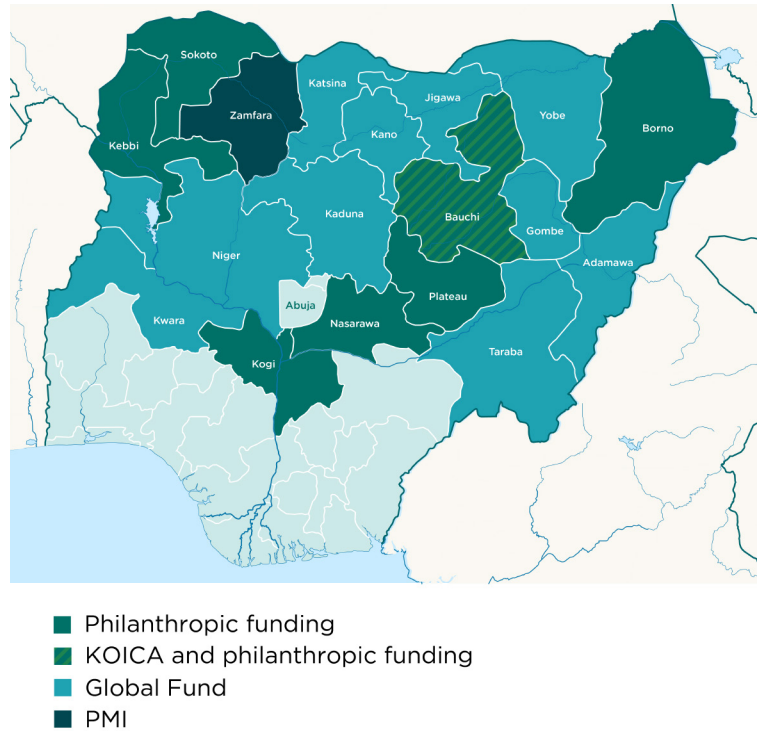
With minimal additional unit cost to the current SMC campaign, we estimate that over 23 million eligible children in Nigeria could receive at least one dose of VAS each year. VAD can be significantly reduced using a delivery mechanism that has been proved to be successful at scale. We are uniquely placed to support the Federal Ministry of Health (FMoH) to scale up and deliver this integrated campaign, given that, in 2022, we already support SMC delivery in 13 states.

Our experience

We conducted an initial implementation research study in 2019 to test the feasibility and acceptability of co-implementing VAS with the SMC campaign in one local government area in Sokoto state.^[9] The results demonstrated a significant increase in VAS coverage from two to 59 percent, without compromising the quality of delivery of SMC, and high acceptability among all stakeholders.^[8] While the results were very positive, new policy guidance could not be made as questions remained on the safety, equity, feasibility in different settings, and cost of the integrated campaign.

In 2021, we conducted a follow-on study to test feasibility in rural and urban settings and to answer these additional questions. Building on the recommendations of the 2019 research, Malaria Consortium co-designed the implementation strategy for this study, together with key stakeholders including: the NMEP, the FMoH (the National Agency for Food and Drug Administration and Control; the Department of Planning Research and Statistics; and the Nutrition Division), the Bauchi State Malaria

States in Nigeria reached by seasonal malaria chemoprevention, by funding source 2021



Elimination Programme and the State Primary Health Care Development Agency. The results showed that the integrated VAS and SMC campaign is safe: there was no significant difference in the proportion of children who experienced adverse drug reactions from receiving SMC and VAS, compared to those who received SMC only. VAS coverage increased substantially, by approximately 80 percent, without compromising either the coverage or quality of delivery of SMC.

In addition, focus group discussions and interviews with caregivers, implementers — including community distributors and health workers — and government and non-governmental stakeholders revealed that the integrated campaign was widely accepted. This was mainly because of the intervention's perceived health benefits, and its efficiency in time and resource management. Moreover, it delivers VAS to children that cannot be reached via routine delivery.

Combined, this evidence presents a strong case for policy guidance on the integration of VAS with SMC campaigns in Nigeria.

Recommendations

We commend the national and state governments of Nigeria for their efforts in reducing VAD in children under five. We recommend that an integrated VAS and SMC campaign be scaled up to address coverage gaps to increase equitable access and reduce under-five mortality.

1. **New policy guidance advocating for the integration of VAS and SMC campaigns should be made.** The evidence shows that integrated campaigns are safe, effective and can be delivered at scale, with minimal additional unit cost.
2. **National and state malaria programmes should work with the FMoH to promote the integrated campaign by incorporating it into the national public health programme.** This integration will ensure that eligible children receive VAS twice a year.
3. **Increased cooperation with UNICEF, Vitamin Angels and other key partners is needed to support the uninterrupted supply of vitamin A for the integrated campaign.** No eligible children covered by the SMC campaign should miss out on VAS due to a lack of supply.
4. **Implementers and donors should consider the lessons learnt from this research in terms of daily target-setting for community distributors.** Workloads should be balanced to maximise efficiencies for the integrated campaign.
5. **Mechanisms for prompt remuneration of personnel should be instituted.** Fair compensation is essential to staff motivation to carry out the campaign effectively.
6. **Field staff and community distributors that are deployed should be well resourced, trained, supervised and monitored.** Clearly defined roles and accountability measures are central to the success of the integrated campaign.

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