

Improving vitamin A coverage through integration with seasonal malaria chemoprevention in Nigeria

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Introduction

Although vitamin A supplementation (VAS) can reduce all-cause under-five mortality by 24 percent, its coverage remains low in Nigeria, at 49 percent. Seasonal malaria chemoprevention (SMC), reaching more than 12 million children annually in Nigeria, provides a ready platform for VAS delivery to improve coverage and access. As a follow-up to a previous feasibility study^[1] that integrated SMC and VAS delivery, this study aimed to evaluate the effect of full integration of SMC and VAS at scale on vitamin A coverage, SMC coverage, safety, equity and cost.

Methods

- We used a convergent mixed-methods approach to assess the feasibility and acceptability of the integrated campaign following the fourth cycle of SMC delivery in October 2021 in two areas of Bauchi state, northeast Nigeria.
- Cross-sectional pre- and post-intervention household surveys were conducted with 540 children 6–59 months; we collected programme cost data and held focus group discussions among health workers, caregivers and community health workers, and key informant interviews among key stakeholders.
- We analysed quantitative data using STATA®, calculated coverage for both interventions, completed a cost analysis and carried out thematic analysis on the qualitative data.

Results

- Preliminary findings from the baseline and endline surveys showed 100 percent response rate.
- VAS coverage increased from 1.2 percent at baseline to 82.3 percent at endline (p-value=0.015), while there was no difference in SMC coverage at baseline (91.9 percent) and endline (90.7 percent) (Table 1).
- The proportion of children who received SMC as directly observed treatment (DOT) increased slightly at endline compared to baseline (Table 2); only 1.6 percent of those reported adverse reactions to vitamin A at endline.
- There was no difference in the education, religious affiliation, occupation or wealth indices among the caregivers of children who received VAS at endline compared to those who did not.
- More children in rural local government areas (86.2 percent) received VAS compared to those in urban ones (78.4 percent) (Table 3), and 80.3 percent of all eligible children received both SMC and VAS.

Conclusion

Overall, these preliminary findings demonstrate the feasibility of an integrated SMC and VAS campaign that does not jeopardise the quality of SMC or the safety of the recipients, and is able to reach eligible children equitably. Further analysis expected from this body of work that will inform decision-making around scale-up relates to questions on cost and the critical success factors for integration.

Reference

1. Malaria Consortium. *Co-implementing vitamin A supplementation with seasonal malaria chemoprevention: A pilot implementation study in Sokoto state, Nigeria*. London: Malaria Consortium; 2021.

Seasonal malaria chemoprevention is a viable platform to improve vitamin A coverage and access among children under five in low- and middle-income countries

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Table 1: Vitamin A (children 6–59 months) and seasonal malaria chemoprevention (children 6–59 months) coverage

	Baseline		Endline		p-value
	N	%	N	%	
Children 6–59 months who received Vitamin A					
No	242	98	95	17.7	0.015
Yes	3	1.2	442	82.3	
Total	245	100	537	100	
Children 6–59 months who received SMC					
No	44	8.1	57	9.3	0.455
Yes	298	91.9	482	90.7	
Total	542	100	539	100	

Table 2: Proportion of children who received first seasonal malaria chemoprevention dose as directly observed treatment

	Baseline		Endline		p-value
	N	%	N	%	
First dose given as DOT					
No	114	22.9	68	14.1	0.357
Yes	384	77.1	414	85.9	
Total	498	100	482	100	

Table 3: Coverage of seasonal malaria chemoprevention (children 6–59 months) and vitamin A supplementation (children 6–59 months) by location

	Urban		Rural		p-value
	N	%	N	%	
Child received Vitamin A					
No	41	21.7	54	15.5	0.001
Yes	148	78.3	294	84.5	
Total	189	100	348	100	
Child received SMC drug					
No	31	16.4	26	7.4	0.001
Yes	158	83.6	324	92.6	
Total	189	100	350	100	

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