

Integrating Formative Research into Nutrition Interventions

Using micronutrient powders (MNP) within an integrated IYCF program in northern Nigeria

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Addressing Sustainable Development Goal 2

With the new Sustainable Development Goals (SDGs) just having been adopted, the Nigerian Federal Ministry of Health (FMOH) and partners have begun ambitious work to address **goal number 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.**^{1,2} In Nigeria, 37% of children under five suffer from stunting³ and 76% of pre-school-aged children live with iron-deficiency anemia.⁴ To improve this nutrition situation, in 2013, the Nigerian FMOH adopted a World Health Organization global recommendation to use micronutrient powder (MNP) for home fortification as a strategy to address micronutrient deficiencies, especially among children up to 23 months.^{5,6} Systematic review evidence from past effectiveness and efficacy trials in similar settings illustrates that the use of MNP supplementation in young children can reduce anemia by up to 31% and iron deficiency anemia by up to 51%.⁷

As part of the global Scaling Up Nutrition (SUN) Movement, the FMOH has developed a costed national nutrition plan with support from the UK Department for International Development (DFID). It includes MNP as a key intervention for scale-up. Also in northern Nigeria, funding support has been provided by DFID, the FMOH, UNICEF, Save the Children, and Action Against Hunger/ACF International in order to collaboratively implement “*Working to Improve Nutrition in Northern Nigeria (WINNN)*,” which is an integrated nutrition program aimed at improving the nutritional status of 11 million children in five northern states. The initiative delivers critical interventions, such as state-wide provision of micronutrients (e.g., vitamin A and iron) through the bi-annual Maternal Newborn and Child Health Week, promotion of IYCF

Editor's note

Issue 2 | 2014 of *Sight and Life* featured a contribution entitled “Home Fortification with Micronutrient Powders: Lessons learned from formative research across six countries.” In it, Judy McLean and her co-authors noted that “Formative research prior to implementing home fortification with micronutrient powders (MNP) is imperative for guiding successful implementation and scale-up.” They also observed that: “Information is needed on country-specific Infant and Young Child Feeding (IYCF), particularly complementary feeding, food availability, common beliefs and practices,” adding that: “Acceptability, compliance, and willingness to continue using MNP are very high where caregivers are well informed and given simple, adaptable options in local circumstances.”

The present article outlines an excellent example of such formative research.

and Community-Based Management of Acute Malnutrition, as well as advocacy for scalability and sustainability.

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“Working to Improve Nutrition in Northern Nigeria aims to improve the nutritional status of 11 million children”

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Creating an enabling environment for IYCF practices and MNP usage

In response to evidence highlighting the importance of formative research for effective nutrition programming with behavior change,^{8–12} UNICEF Nigeria assisted the Government in conducting a robust formative study in Kebbi and Adamawa – the first two states where the integrated IYCF and MNP program will commence in 2016. Developing an at-scale nutrition program which attempts to change nutrition-related behaviors is no easy task in Nigeria, where myriad cultural groups and nearly 500 languages co-exist within state borders.¹³ To increase the likelihood of program success, this European Union funded formative phase was comprehensive and included qualitative and ethnographic data collection in both Kebbi and Adamawa covering multiple, iterative research phases over a nine-month period (Table 1). The study was designed with participatory, open-ended methods for collecting socio-cultural and contextual information in order to create an enabling environment for optimizing IYCF practices and MNP usage.



Musa, the first child 6–23 months in an IDP camp to receive food fortified with MNP.

Findings from the formative phase were recently presented in a multi-sectoral stakeholder dissemination meeting in Abuja. They revealed important socio-cultural information among cultural groups of Kebbi and Adamawa, as well as the multi-level barriers and facilitating factors to the health-seeking behaviors of interest around IYCF and MNP home fortification. Specifically, findings highlighted salient community perceptions and behaviors in several domains, including but not limited to: Childhood Illness, IYCF Practices, MNP Uptake and Utilization, and Communications: Social Marketing an MNP. By including an eight-week home-feeding trial with MNP, the study was able to elucidate key determinants of MNP utilization, as well as the high level of early product acceptance. This formative work may represent one of the most comprehensive efforts for developing an integrated MNP nutrition intervention to date. Preliminary data suggest that MNP is appropriate for this setting, with high community appreciation.

The formative research has already helped the country to design emergency distribution of MNP to approximately 1.3 million internally displaced families in the three northeast Nigerian States of Adamawa, Borno, and Yobe that have been affected by the Boko Haram insurgency.

Specifically, these findings were used to develop a culturally appropriate behavior change communication strategy and materials to enhance the likelihood of MNP acceptability and appropriate utilization.¹¹ In the coming months, a large-scale pilot trial will be implemented to test the effectiveness of various MNP delivery mechanisms and to identify the most cost-effective approach that maximizes coverage, while ensuring equitable reach. Based on the lessons learned, a costed national plan will



Nigerian caregivers voting in a participatory community workshop during formative research.

TABLE 1: Formative research data collection efforts by method used

Research Method	Kebbi	Adamawa	Total
In-depth interviews	66	60	126
Community workshops	12	12	24
Direct observations	18	24	42
Free lists	41	40	81
Spot checks	44	45	99
Pile sorts	33	35	68
Surveys	45	38	83

then be developed to progressively scale up the intervention by 2018 – part of multi-sectoral collaboration among Government and donors, as well as public and private partners.

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“Chronic malnutrition remains an enduring problem in Nigeria. Eleven million children under 5 suffer from stunting. Almost 22 million children are anemic. This warrants urgent attention.”

Chris Osa Isokpunwu

Head of Nutrition, Nigeria FMOH and SUN Focal Point

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Indeed, other countries will also benefit from Nigeria’s evidence-based program experiences. Sharing experiences, successes, and failures will be important as we in the international nutrition community move towards scaling up and delivering on the ambitious SDG goals and targets, while striving to ensure that nutrition remains high on the global health agenda.

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