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Barriers to Maternal Iron-Folic Acid Supplementation and Compliance in Kisumu and Migori, Kenya

December 2016

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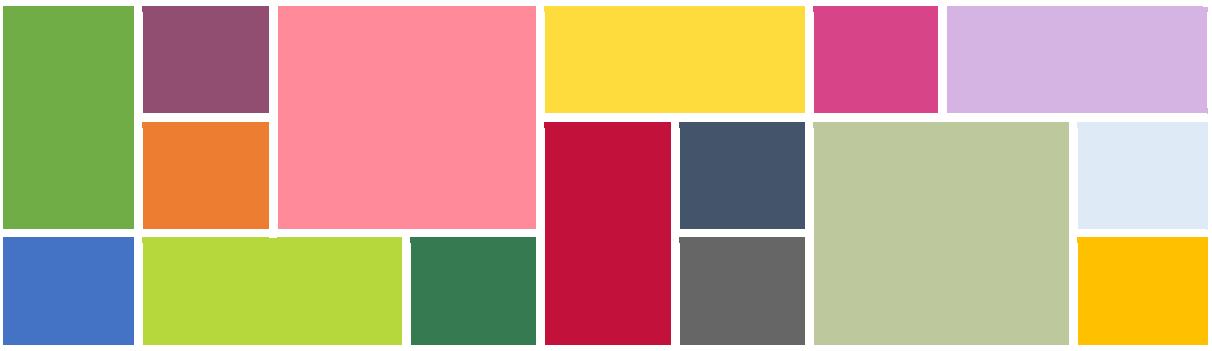

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement AID-OAA-A-14-00028. The contents are the responsibility of the Maternal and Child Survival Program and do not necessarily reflect the views of USAID or the United States Government.

Executive Summary

Background

Iron-folic acid (IFA) supplementation is a key cost-effective intervention to address anemia among pregnant women, as part of an integrated package to address multiple causes of anemia. Maternal IFA supplementation has been shown to reduce maternal anemia and, consequently, maternal mortality, newborn mortality, and poor birth outcomes, such as low birth weight (LBW), (Peña-Rosas and Viteri 2009; Scholl and Johnson 2000). In 2012, the Government of Kenya (GOK) instituted national policy guidelines for combined IFA supplementation to pregnant mothers as part of the focused antenatal care (FANC) initiative, to aid in reducing maternal anemia. Current Kenyan recommendations during pregnancy are one IFA tablet daily (60 mg iron and 400 ug (0.4 mg) folic acid from conception until delivery for all pregnant women as a preventive measure for maternal anemia, which mirror the WHO 2012 global recommendations of 30–60 mg iron and 400 ug folic acid.

In Kenya, the Maternal and Child Survival Program (MCSP) works to strengthen health system delivery of key nutrition interventions, including micronutrient supplementation and baby friendly community initiative (BFCI), at the national, county and sub-county levels, in two priority counties, Kisumu and Migori and in East Pokot, Igembe North and Igembe Central subcounties, which were part of the nutrition portfolio under Maternal and Child Health Integrated Program (MCHIP), the predecessor to MCSP. MCSP continues the ongoing and strong partnership with the Nutrition and Dietetics Unit of the Kenya Ministry of Health (MOH) to increase the knowledge, uptake, and utilization of IFA. MCHIP supported the development of IFA policies and guidelines at the national level. MCSP continues to support MOH's rollout of the combined iron-folic acid (IFA) tablet versus separate doses of iron and folic acid, through training health workers on micronutrient supplementation to address micronutrient deficiencies, providing mentorship to healthcare workers on IFA counseling and aiding documentation and routine reporting of IFA supplies.

According to the World Health Organization (WHO) Global Database on Anemia, from 1991–2011, maternal anemia prevalence decreased from 55% to 36% in Kenya.[9-10] While Kenya has made gains in maternal anemia reduction and is on track to meeting World Health Assembly targets for anemia in women of reproductive age, according to recent Global Nutrition report data, barriers to uptake of IFA through focused antenatal care package (FANC) remain. According to recent Demographic and Health Survey data, although 69% of Kenyan women reported receipt of any IFA supplements during their last pregnancy, only 2.5% of women consumed IFA pills/syrup for 90+ days, indicative of widespread low compliance to IFA.[11]

A qualitative formative assessment was conducted to identify barriers to uptake of maternal IFA supplementation in MCSP-supported areas, with a focus on compliance to IFA

supplementation. These findings will be used to develop targeted IFAS messages for use by health providers and community health workers (CHWs).

Objectives

This formative assessment had two main objectives:

1. To identify barriers to IFA supplementation, with a focus on improvement of compliance to IFA, as a basis for development of additional behavior change communication (BCC) messages or materials
2. To recommend short- and long-term strategies to address compliance, side effects, and dispelling of misconceptions among pregnant and lactating women on IFA supplementation in Migori and Kisumu counties.

Study Description and Methodology

The aim of this study was to determine the factors that influence the women's use of and compliance to IFAS. It also investigated women's knowledge about anemia, anemia prevention, and sources of information about IFAS. A total of six FGDs were conducted with pregnant women and mothers of infants (0-6 months) at randomly selected health facilities, representing three sub-counties each from Migori and Kisumu counties. These maternal child health clinics were chosen to include variations in socio-economic status, geographic location, and exposure to interventions. All centers were public and run by the government. The participants within the maternal and child health clinics were randomly selected from pregnant and lactating women with children aged 0-6 months who were attending the health center on the day of the study. Eight to ten women were randomly selected for each of the six FGDs for a total of forty-eight women interviewed. The final number of women in each discussion ranged from five to ten, as some respondents dropped out. The participant distribution is described in Table I, and the composition of FGDs is illustrated in Figures I and II.

Table 1. Study areas

County	Sub-county/Health facility	Number of women per FGD
Migori	Nyamara Health Center	9
	Macalder Sub-district Hospital	9
	St. Barnabos Dispensary	9
Kisumu	Seme/Oswere Dispensary	7
	Miranga Health Center	4
	Nyakach/Sondu Health Center	10

Two experienced data collectors were recruited from each county to assist with the administration of the FGDs. These were the sub-county nutritionist and a nutritionist at the

health facility, who were selected because of their knowledge of nutrition, experience with FGDs, fluency in the local language and familiarity with local cultural norms.

The nutritionists recruited and mobilized the women with the help of the community health extension worker, who also arranged for a suitable meeting place for the FGDs. Consent to participate in the discussions and permission to record the FGDs was obtained from participants prior to beginning discussions.

Figure I. Focus group discussion with pregnant women

Figure II. Focus group discussion with mothers of children aged 0-6 months

The moderator guided the discussions using the FGD guide. The FDGs conducted in Luo, the local language. The consultant and the MCSP Nutrition Advisor were present at all the discussions to ensure interviews were conducted as planned.

Data analysis

Qualitative data were transcribed into Microsoft Word files and thereafter transferred to NVIVO 11 software (QSR International Pty Ltd.) for coding, analysis, and identification of major themes. Codes were based on main themes derived from the qualitative interview guide. The data were coded based on recurring themes identified in the transcripts of FGDs and recurring issues raised by participants. Thematic analysis was used due to its appropriateness for selecting the most common recurring themes and issues. Table II below provides a summary of the coded information by theme. The FGD guide and detailed analysis can be found in Appendices I and II, respectively.

Table II. Themes from focus group discussions (FGDs)

Theme	Responses	Comments/Remarks
Women's knowledge about anemia	• Symptoms include: blurred vision, malaise, back pains, tiredness, and nausea • Not having enough blood • Can be caused by "missing foods" and not eating foods that "add blood" • Can be caused by malaria, worms, and yellow fever • Skipping monthly periods, poor appetite, or blood transfusion	• Few women knew what anemia is and gave varied responses.
Women's knowledge of practices for anemia prevention	• Medication • Take IFA when they do not have enough blood • Eat a balanced diet with foods rich in iron, water, fruits, Ribena, beans, vegetables, and small fish or sardine (i.e. dagaa/omena) • Do not overwork or carry heavy loads • Use mosquito nets and stay in a clean place • Rest	• Only a few women knew how anemia can be prevented.
Women's sources of anemia information	• Hospital personnel (e.g., doctors and nurses) • CHWs	• The majority of women mentioned no one has taught them about anemia.
Advice given to women about anemia	• Anemia can lead to edema, blurred vision, and poor health status • Anemia leads to not sleeping a lot	• Most women reported this information was given by CHWs.
Women's knowledge about IFA	• IFA can increase blood	• Most women said they do not know.
Women's experiences with IFA	• Experienced side effects, including vomiting, nausea, and fatigue • The tablets have a bad smell	• Long walking distances to the hospital were cited by some women as the reason for starting ANC and IFA later in pregnancy.

	• Take IFA with food to reduce side effects (e.g., porridge, ugali) • IFAS increases energy and appetite • Majority of women start IFAS late (4-5 months of pregnancy)	
Reasons given to women for taking IFA	• To boost blood level • To reduce fatigue • To prevent abnormalities • To prevent premature births • Because the fetus withdraws blood from the mother • To counteract anticipated blood loss during delivery	• Some women did not know why they were given IFA; they were only told not to miss taking them.
Women's reasons for taking IFA	• Told not to miss a dose • To increase blood level • To give birth to healthy babies with no abnormalities • To prevent miscarriage	• Some women took IFA because they were told to take it but did not know of the advantages. • Only nine women gave at least one accurate reason for taking IFA.
Advice given to women about IFA	• Do not miss a dose of IFA • Take IFA until delivery • Prevents low-birth-weight babies • IFA helps curb shortness of breath	• Some women reported not knowing the benefits of IFA.
Advice/counseling given to women about IFA side effects	• Take IFA with food • One woman who reported dark stool was informed that it was normal	• Most women were not taught about side effects but were advised by CHWs to go back to the health facility.
Women's sources of advice about IFA	• CHWs • Doctors • Person dispensing (chemist?)	• CHWs were most often mentioned as source of advice about IFA.
Women's reasons for stopping IFA	• Side effects (e.g., vomiting, nausea, feeling tired, and bad smell)	• A few women reported that they continued taking IFA despite side effects, as they were told how important IFA was.
Factors to increase IFA adherence	• Teach the importance of IFA at the facility • Give more information about IFA	• Almost all women agreed that adherence would increase if they were given information about the importance of IFA for pregnant women.