MAKING IT MEANINGFUL: CONTEXTUALIZING FOOD-BASED RECOMMENDATIONS WITH COMMUNITIES IN NIGER TO IMPROVE INTAKE OF VITAMIN A AND IRON

Jen Burns, USAID Advancing Nutrition, Arlington, VA, USA; **Lisa Sherburne**, USAID Advancing Nutrition, Arlington, VA, USA; **Hadiara Souley**, USAID Advancing Nutrition, Niamey, Niger; **Mamoudou Djibo Khaled**, USAID Advancing Nutrition, Niamey, Niger

Localizing food-based recommendations with communities is an important process in improving micronutrient intake.

BACKGROUND

Diets are typically poor in rural Niger, with few pregnant and lactating women (PLW) and children 6–23 months consuming a diverse diet. Coverage of vitamin A and iron-folic acid supplementation is inconsistent and quality implementation is constrained by multifaceted barriers. As a result, iron-deficiency anemia and vitamin A deficiency rates remain high. The Ministry of Public Health and partners acknowledge that more could be done to support households in food insecure contexts to improve dietary intake of iron- and vitamin A-rich foods.

INTERVENTIONS

We introduced an approach for developing food-based recommendations to localize government materials and improve dietary intake of iron and vitamin A-rich foods among children 6–23 months and PLW through implementing partner activities. We collaboratively identified locally available vitamin A- and iron-rich foods then used food databases and food composition tables to prioritize those with higher micronutrient content. We analyzed structural, social, and individual-level factors that support or inhibit consumption of prioritized foods. Partners carried out participatory exercises with communities to better understand typical dietary practices; food availability (grown, raised, gathered, purchased); and interest in trying to add new foods. Using the average amount of the micronutrient-rich food implementers may offer as an addition to the child's or woman's meal, community groups tested out foods they selected. Methods included focus group discussions, pile sorting exercises, group food preparation exercises, and discussions.

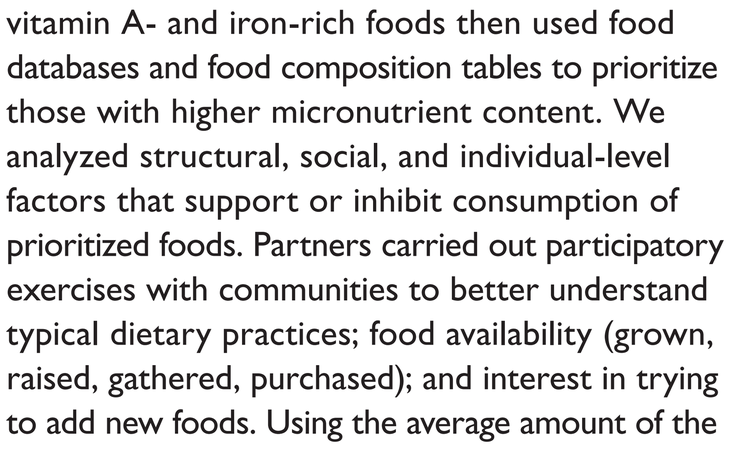

Photo credit: Hadiara Souley/Helen Keller International

FINDINGS

We identified 18 foods rich in vitamin A and iron in a highly food insecure context. Table 1 presents a list of locally available foods, amounts to add to a meal, and their potential contribution toward daily nutrient requirements. Partners found dietary practices to be similar for children 6–23 months, however those 12–23 months of age are offered double the quantities of those 6–11 months. Typically, children eat 2–3 times a day depending on food availability, and mothers decide what to prepare and serve. Caregivers were most willing to add dried moringa leaf powder, dried bean leaf powder, and goat's milk to their child's porridge made of millet or sorghum. Crickets, small fish, liver, cow's milk and butter, mangoes, baobab leaves, millet, sorghum, and sesame are available at certain times of the year. Caregivers can gather leaves from cassava, bean, baobab, moringa, and amaranth, and crickets in the wild. Husbands influence which foods PLW consume. However, PLW were most willing to add cow butter, eggs, moringa leaves, liver, and goat's milk to their meal, typically in a form of couscous, porridge, or fufu with sauce. The recommended types and amount of food have been incorporated into media and materials for partners: husband schools, care groups, and community radio programming.

Photo credit: Hadiara Souley/Helen Keller International

Table 1. Nutrient Analysis of Locally Available Foods and Nutrient Contributions for Children 6–11 Months and 12–23 Months in Niger

Children 6–11 Months			Children 12–23 Months		
Food—Form (grams)	**% of Recommended Daily Allowance (RDA) of Iron**	**% of RDA of Vitamin A**	**Food (grams)**	**% of RDA of Iron**	**% of RDA of Vitamin A**
Millet—whole grain boiled (50 g)	28.6%	0%	Millet (75 g)	45.0%	0%
Sorghum—whole grain/boiled (50 g)	12.7%	0%	Sorghum (75 g)	30%	0%
Eggs (chicken 50 g)	9.1%	6.6%	Eggs (chicken 50 g)	14.3%	15.8%
Locusts—fried, powder (15 g)	6.8%	0%	Locusts—fried, powder (30 g)	21.4%	0%
Moringa leaves—dried (10 g)	10.5%	6.4%	Moringa leaves—dried (20 g)	33.1%	30.5%
Moringa leaves—fresh/boiled (10 g)	9.9%	25.1%	Moringa leaves (20 g)	31.1%	119.6%
Mango—deep orange/raw (15 g)	0.1%	8.7%	Mango—deep orange/raw (30 g)	0.4%	41.6%

Table 2. Global References for Iron and Vitamin A Requirements

	Children		Pregnant Women		Lactating Mothers	
Age	**7–12 months**	**12–36 months**	**14–18 years**	**19–50 years**	**14–18 years**	**19–50 years**
Iron	11 milligram [mg]	7 mg	27 mg	27 mg	10 mg	9 mg
Vitamin A	500 microgram [mcg] retinol activity equivalent [RAE]	300 mcg RAE	750 mcg RAE	770 mcg RAE	1,200 mcg RAE	1,300 mcg RAE

CONCLUSION

Locally available iron- and vitamin A-rich foods exist in Niger and some are feasible for women to eat for caregivers to feed young children. This exercise is helpful for ranking the nutrient content of locally available foods to be sure that promoted foods will meet daily nutrient needs, and exploring with caregivers and PLW the ones that are accessible and feasible to be added to their typical meals. Community engagement is key to identifying small feasible solutions to improve dietary practices.

USAID FROM THE AMERICAN PEOPLE

This poster is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of JSI Research & Training Institute, Inc. (JSI), and do not necessarily reflect the views of USAID or the United States government.

USAID ADVANCING NUTRITION
The Agency's Flagship Multi-Sectoral Nutrition Project
WWW.ADVANCINGNUTRITION.ORG