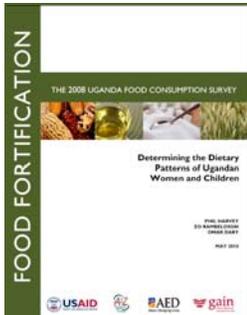




## The USAID Micronutrient and Child Blindness Project



A2Z: The USAID Micronutrient and Child Blindness Project and the Global Alliance for Improved Nutrition (GAIN) are pleased to announce the release of the *Uganda Food Consumption Survey: Determining the Dietary Patterns of Ugandan Women and Children*. The survey was undertaken to provide the critical body of evidence needed by policy makers and program designers for informed decisions about effective investments to reduce nutrition deficiencies due to inadequate intake in Uganda. The results provide evidence enabling development of a baseline for strengthening the Ugandan National Food Fortification Program as well as other micronutrient interventions.

### Inadequate Micronutrient Intake

The *Uganda Food Consumption Survey* found that inadequate intake of vitamins and minerals is widespread in Uganda, at a level likely to impose enormous costs to the nation in terms of health, education, and economic development. As in many developing countries, the main micronutrient intake gaps identified across the three regions studied were for those vitamins and minerals most often supplied by foods of animal origin; these include vitamin A, vitamin B-12, iron, zinc, and calcium. Comparing the three regions studied, the study found:

- Diets in the rural South-West provided larger amounts of most nutrients, and thus the population there had the lowest prevalences of inadequate intakes.
- Despite higher overall levels of wealth in Kampala, mild inadequacies of B complex vitamins were found, possibly due to the reliance in urban areas on products with low micronutrient density, such as refined flours, sugar and oil/fats.
- Dietary patterns in the North were more restricted, with a population reliant on food assistance from the World Food Programme (WFP). Inadequacies of vitamins B-2 and B-6, in addition to vitamin A, vitamin B-12, iron, zinc, and calcium, were widespread in the North.

### Potential of Fortification

The study reaffirms the potential of food fortification programs to address inadequate intake of many key vitamins and minerals for some segments of the Ugandan population. The study also underscores that the reach of fortified food staples is strongest in urban areas.

Vitamin A could feasibly be delivered to a large proportion of the Ugandan population through the combined fortification of vegetable oil and sugar. Vitamin A-fortified vegetable oil is already widely available, particularly in urban areas, while vitamin A fortification of sugar is currently under consideration. Meanwhile, fortification of wheat flour with B-1, B-2, niacin, and folic acid at the current proposed levels appears sufficient to correct the inadequacies of these micronutrients in Kampala.

The survey model indicates that micronutrient gaps for iron, zinc and calcium would remain widespread, even in the presence of proposed fortification programs. Thus social programs based on targeted fortification or supplementation (daily or weekly), as well as other micronutrient interventions, should be actively introduced and tested, or expanded to supply the required nutrients to vulnerable groups, particularly those in rural areas.

### Survey Design

The survey was carried out in one urban (Kampala) and two rural (South-West and North) regions of Uganda in 2008 to more fully characterize the dietary patterns of children 24-59 months of age and women

of reproductive age (WRA) (15-49 years). The three regions included in the survey were purposefully selected, while within each region, districts and then households were randomly selected in a two-stage process that provided samples representative of that region. Food consumption was measured using the 24-hour recall method with duplicate measurements on a subset of the sample to allow estimation of usual intake.

### **Global Implications**

For decades, the lack of solid information on dietary patterns in most developing countries has been a barrier to designing and implementing comprehensive interventions to address nutritional deficiencies due to inadequate intake. The information presented is intended to assist Ugandan policy makers and program designers to select and tailor interventions designed to fit the specific contexts found in Uganda, and to enable substantial contributions to efforts being made to achieve the Millennium Development Goals. Beyond the Ugandan context, the *Uganda Food Consumption Survey* also responds to international interest in developing a viable model for closing the information gap, suitable for global application.

The Uganda Food Consumption Survey was made possible through the support of GAIN, WFP, and the United States Agency for International Development, Bureau for Global Health, Office of Health, Infectious Disease and Nutrition.

The study is available at [www.a2zproject.org](http://www.a2zproject.org) and [www.gainhealth.org](http://www.gainhealth.org)

