Summary

The goals of this project were to: 1) assess the dietary quality and food security status of women and their families in Camp-Perrin, South Haiti, 2) estimate the frequency of consumption of sweet potatoes in the diet of the target community, 3) examine beliefs, attitudes and behaviors related to sweet potatoes, 4) examine the level of consumer acceptability of sweet potato leaves in terms of flavor, aroma, taste, color, and texture, 5) simulate the potential contribution of Orange Fleshed Sweet Potatoes (OFSP) to alleviate vitamin A deficiency in Haiti, and 6) examine the potential acceptability of OFSP in Haiti. Four studies were conducted from June to late July 2007 to meet these goals.

We applied a Food Frequency Questionnaire (FFQ) to 153 mothers of children under five years old in rural South Haiti. The FFQ contained 55 items and used a 3 months reference time period. Over the previous 3 months, the majority of women reported consuming fruits (98.7%), rice (98.7%), local bread (96.7%), mangoes (96.7%), corn (95.4%), plantains (94%), carrots (93.5%), and sweet potatoes (92.8%), followed by fish (85.0%), salty snacks (85.0%), raw milk (83.0%), chicken (81.0%), beef (80.4%), papaya (78.9%), pumpkin (78.4%), kola (60.8%), concentrated milk (60.8%), liver (53.6%), and watermelon (52.3%). However, the median frequency consumption for most nutrient dense foods was less than 2 times per week. Only mangoes, plantains, rice, local bread and beans were consumed 3 or more times per week by the majority. Vegetables, fruits other than mangoes and animal protein sources were infrequently consumed by the majority. The above results suggest a need for micronutrient enhanced foods in the area to alleviate potential micronutrient deficiencies.

The 16-item Latin American and Caribbean Household Food Security Scale (ELCSA) was used to assess the degree of food insecurity. ELCSA had a strong internal validity (Cronbach’s alpha=0.92) and adequate criterion and convergence validity. All the households were food insecure with 49% of them being very food insecure and 7% of them extremely food insecure. These results were consistent with the extreme poverty conditions in the target communities (65% of study households earned a dollar or less per day). In addition, one-third of the women participating in the study were underweight.

Results from 2 focus groups (n=22) showed that sweet potatoes were part of the traditional diet and that they were thought of as being highly nutritious and beneficial to human health. Participants indicated that they were not used to consuming sweet potato leaves but that they would be willing to try them. Results from the sensory analysis panel showed that participants were indeed very satisfied with the sensory properties of one of the two dishes prepared with sweet potato leaves.

Computer simulations showed that OFSP has a strong potential to increase vitamin A intake in rural Haiti. Its introduction into Haiti deserves to be seriously considered.

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