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## **ACF Canteen Program in Haiti: Results of Program Evaluation**

### **Summary**

As a result of the political crisis that took place in Haiti in 2003, Action Against Hunger (ACF France) put in place a canteen program in vulnerable areas, distributing corn-soya-blend (CSB) to children under five and rice-bean-oil rations to caregivers. Sprinkles, a multi-micronutrient powder for home fortification, were distributed in the last month of the program along with the rations. This was the first time Sprinkles were used in an emergency relief aid situation. A survey to evaluate the program was performed on a total of 376 caregivers. Results showed that caregivers visited an average of five times per week, receiving on average one rice-bean-oil ration (6 portions), five CSB rations (for children), five Sprinkles for children and five Sprinkles for themselves each week. However, rations and Sprinkles tended to be shared amongst all other family members. Sprinkles tended to be mixed into canteen foods and were well liked, however there were some reports of mixing Sprinkles into liquids such as juice. Few side effects were reported using Sprinkles, however there were some reports of changes to the taste, color and texture of the foods upon addition. Caregivers felt that Sprinkles increased their children's appetite, helped them to sleep better and made them stronger. Although canteen workers were educated about Sprinkles and informed caregivers about how to use them, more education about Sprinkles was felt necessary to increase knowledge of mixing Sprinkles appropriately into foods. Overall, Sprinkles were well accepted and fit in well with a supplementary food distribution program.

### **Background**

Following the political crisis in Haiti that took place from September 2003 to February 2004, Action Against Hunger (ACF France) put into place a supplementary feeding program geared at children under five from the most vulnerable areas around Gonaives, northern Haiti. The program took place from April to August 2004 and included the distribution of Sprinkles<sup>1</sup>, a multi-micronutrient powder for home fortification. In total, canteens were put in place in 13 regions throughout this period. Each day of the week, children under five were provided with a corn-soya-blend (CSB) supplementary ration, each ration containing a total of 1000 kcal. Children under 110 cm in height were selected to receive the ration. The caregiver was given the ration to take home and feed to the child. One day per week, the caregiver was also given a six day ration of rice, beans and oil. In the last month of the program, Sprinkles were distributed along with the rations to both children under five and their caregivers. Education was given on how to mix Sprinkles into foods at this time. One sachet was distributed for each child daily and on the day the caregiver received her personal rations, six sachets were given to her to add to her daily ration. The formulation of Sprinkles was meant for children, however due to the large volume of Sprinkles available and the vulnerability of these women to micronutrient deficiencies, these Sprinkles were also distributed to the women. The increasing security problems and tension in Haiti meant that Sprinkles distribution was somewhat limited and monitoring surveys were therefore not as extensive as was hoped. One survey including questions on ration and Sprinkles distribution and acceptability was conducted at the end of the program. The survey was meant to gain information on the coverage and acceptability of the rations and Sprinkles. In total, there were 376 women who participated in the survey on canteen and Sprinkles usage on behalf of themselves and their children. Surveyed canteens were located in Allumette, Anba Pwent, Bas Jubile, Bas Raboteau, Bas Troustable, Bienac, Bois D'Orme, Haut Raboteau, Haut Troustable, Troussable, La Tannerie, Polkos and Troucouleuvre.

### **Sprinkles Distribution**

This was the first time that Sprinkles were used in an emergency relief aid program. Although supplementary food rations are high in calories, they are often lacking in sufficient micronutrients. Sprinkles may therefore be ideal in these situations to prevent micronutrient deficiencies. In Haiti specifically, there was some concern that Sprinkles may not be accepted culturally due to the practice of voodoo. In order to pre-test the acceptability of the Sprinkles, a small number of Sprinkles were distributed before sending a large shipment. Results of this small pilot showed that the Sprinkles were well accepted with no participants refusing to use them. After the pilot, the remaining Sprinkles were shipped to Haiti where there were some difficulties clearing customs and getting the Sprinkles to the vulnerable areas due to the mounting tensions and issues of security. For these reasons, Sprinkles distribution within the canteens did not begin until the beginning of

August, the last month of the canteen program. At the beginning of the Sprinkles distribution, canteen workers were educated about the benefits of using Sprinkles and how to take them. During distribution, posters were made and placed around the area in Creole and French which explained the benefits of Sprinkles and how to take them (see attached posters). Sprinkles were distributed within canteens by the person at the exit who would give each caregiver a sachet for each child under five with instructions for use. In total, there were 21 days of Sprinkles distribution for children under five and two (6 sachets given per time) distribution days for the caregivers. A total of 196,000 Sprinkles were distributed in total with 126,000 to children under five and 7,000 to caregivers.

## **Evaluation Survey**

At the end of the program, an evaluation survey was performed on a convenience sub-sample of caregivers in all the program regions. The survey was conducted by local ACF staff at the homes of program participants. The purpose of the survey was to determine the acceptability and usage of both the rations and the Sprinkles. Examples of information gathered included the number of visits caregivers made to the canteens, whether they consumed the rations and Sprinkles, whether they liked them and any problems encountered with the program. Data was entered locally and sent to SGHI in Toronto for analysis.

### **i) Relating to the Canteen Food**

On average, family size included six people with two children under five. The head of the household was on average 35 years old. On average, two children per family benefited from the canteen food with the average age being two years. Caregivers visited the canteens an average of five times per week. Caregivers used the rice-bean-oil ration mainly for just one meal, sharing it in general with three other adults and three children. Most surveyed caregivers in the area used the services of the canteen (96% of all surveyed). Reasons for not using the canteen for children included children being in school, not knowing about the canteen and only visiting on days when the ration for women was distributed. Rations given to children were for the most part shared with other family members (86% of those surveyed). General comments related to the canteen included issues of safety in carrying back rations that were sometimes stolen. Some caregivers complained that the flour was old and portions of dry food were too small.

### **ii) Relating to Sprinkles**

On average, caregivers visited the canteen five times per week and received an average of five Sprinkles per week for their children and five per week for themselves. On average, caregivers shared all Sprinkles amongst three adults and three children in the family. Most caregivers in the area visited the canteens and received Sprinkles (>90% of those surveyed). Of these, most caregivers liked the Sprinkles (93%) and mixed them into foods from the canteen (65%). Very few caregivers reported giving Sprinkles away either as an exchange or selling them (5 persons in total). Most women found the Sprinkles easy to use (90%), however some women reported changes in taste (50%), color (27%), texture (40%) and smell (31%) of food Sprinkles were added to. This was most likely due to adding Sprinkles to steaming hot foods, which would melt the encapsulation matrix around the iron thereby potentially changing the color, taste, texture and smell of food. Many caregivers felt that Sprinkles increased their children's appetite (51%). Less than 1% of caregivers complained about side effects with giving Sprinkles such as diarrhea, vomiting, harder stools or stomach ache.

## **Implications for Sprinkles in Relief Aid Programs**

Results of the canteen program in Haiti suggest that Sprinkles may be a useful addition to emergency relief aid programs distributing food rations. Main problems encountered around the use of Sprinkles included sharing them with other family members and mixing them into liquids. This suggests that further education to caregivers should be given to ensure Sprinkles are used appropriately. Overall, Sprinkles were well accepted and fit in well with a supplementary food distribution program.

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<sup>i</sup> Zlotkin SH, Schauer C, Christofides A, Shariief W, Tondeur M, Hyder SMZ. (2005) Micronutrient Sprinkles to Control Childhood Anaemia. PLoS Med 2(1): e1.