

## **Gukura Program Overview**

Since September 2010, Gardens for Health International (GHI) has been working with two health centers to implement long-term food security projects for families of malnourished children. In November 2010, GHI partnered with a third health center. The Gukura Program builds upon GHI's philosophy of empowering chronically ill individuals with the tools to realize nutritional independence. Participating families are provided seeds, tree seedlings and small livestock along with technical assistance in sustainable agriculture and nutrition. The Gukura Program is a one-year pilot project that will serve as a learning module for extending the nutritional support for families of malnourished patients: from clinic to community.

## **Agricultural Assistance to Families**

In August 2010, GHI and its partner health centers hired an agricultural agent for each health center. The agricultural agent serves as the point person for the Gukura Program in those who are treated for malnutrition at the health center are referred to the agricultural agent for enrollment in the Gukura Program. Once enrolled, families of malnourished individuals are provided agricultural assistance in form of materials and education. The agricultural agent helps the family plan and implement a home garden that aims to improve the quantity, quality and diversity of the foods the household consumes. Currently, there are 14 families participating in the Gukura Program.

## **Education of Families**

Practical assistance must be accompanied by an educational component in order to make a sustainable impact. GHI is working with health centers to strengthen on-site educational programs. Every week, mothers of malnourished children come to the health center with their children to receive food aid in forms of sosoma or RUTF. GHI and the health centers are utilizing these days to provide education to families about nutrition, hygiene, agriculture and financial management. These educational sessions are participatory learning sessions with cooking demonstrations.

## **Strengthening the Health System**

### *Demonstration and Production Gardens*

GHI is working at the health center to improve the clinical management of malnutrition and better connect the health center to the population in its catchment area. The Gukura Program is funding the installation of demonstration and production gardens at the clinical sites. Demonstration gardens, which illustrate various methods of implementing sustainable vegetable gardens, serve as educational tools for people who come to the health center. Production gardens provide produce for the cooking demonstrations. As the production garden expands, the health center will be able to provide supplemental vegetable packages along with the current forms of food aid they provide to malnourished patients and their families.

### *Training Community Health Workers*

Strengthening the community health worker system is critical to bridging the gap between clinical and community management of malnutrition. Community health workers directly connect the population to the health system on a daily basis. GHI and the health center staff are organizing trainings for community health workers on nutrition, hygiene and other health topics.

## **Integration with the Health System**

The Gukura Program is a joint effort between GHI and its partnered health centers. The agricultural agent, while supported by GHI, has a contract with and is paid by the health center. Trainings on

nutrition and malnutrition focus on making the National Protocol for the Management of Malnutrition accessible to health center staff and community health workers.

### Measuring Impact

|   | Category            | Key Performance Indicator  | What does success look like?   | 2010 | 2011 | 2012  | 2013  | 2014  |
|---|---------------------|--|--|------|------|-------|-------|-------|
| 1 | Scale               | Number of enrolled families                                      |  | 80   | 180  | 460   | 1120  | 2260  |
| 2 |                     | Number of partnered health centers                               |  | 3    | 4    | 9     | 21    | 39    |
| 3 | Nutritional Impact  | Household Food Insecurity Access (HFIA)                          | 100% of households enrolled for at least 1 year moved up at least 1 HFIA category or maintained at HFIA category 1 | 0%   | 50%  | 75%   | 80%   | 85%   |
|   |                     |  | 100% of households enrolled for at least 1 quarter with increased HFIA Score or maintained HFIA Score of 0         | 0%   | 60%  | 80%   | 85%   | 90%   |
| 4 |                     | Household Dietary Diversity (HDD)                                | 100% of households enrolled for at least 1 quarter with increased HDD Score or maintained HDD Score of 16          | 0%   | 60%  | 80%   | 85%   | 90%   |
| 5 |                     | Household Food Self-Sufficiency (HFSS)                           | 100% of households enrolled for at least 1 quarter with increased HFSS Score                                       | 0%   | 60%  | 80%   | 85%   | 90%   |
|   |                     |  | 100% of households enrolled for at least 1 quarter with increased HDDS as a result of increased HFSS               | 0%   | 33%  | 50%   | 66%   | 80%   |
| 6 |                     | Patient Weight**   | Total kg of weight gained by enrolled patients   | 80   | 720  | 1840  | 4480  | 9040  |
| 7 | Agricultural Impact | Total Area of Land Cultivated for Home Gardens (m <sup>2</sup> ) |  | 2000 | 5000 | 12625 | 30875 | 63500 |

|    |                     |   |   |    |      |      |      |      |
|----|---------------------|---|---|----|------|------|------|------|
| 8  |                     | Household Total Crop Yield**                | % Increase of Total Crop Yield  | 0% | 20%  | 40%  | 50%  | 66%  |
| 9  |                     | Household Harvest/Crop Consumed             |   |    |      |      |      |      |
| 10 |                     | Health Center Total Area of Land Cultivated |   |    |      |      |      |      |
| 11 |                     | Health Center Total Crop Yield              |   |    |      |      |      |      |
| 12 | Economic Impact     | Household Kg of Harvest/Crop Sold           |   |    |      |      |      |      |
| 13 |                     | Household Income Generated From Home Garden | Total USD generated from home garden  |    |      |      |      |      |
| 14 |                     | Household knowledge Learned and Practiced   | 100% of households enrolled for at least 2 quarters with increased score or maintained maximum score on FSP Household Embedded Knowledge Assessment | 0% | 50%  | 70%  | 75%  | 80%  |
| 15 | Client Satisfaction | AA Evaluation Survey Score                  | 100% of households enrolled for at least 1 quarter satisfied with delivery of FSP and AA  | 0% | 100% | 100% | 100% | 100% |

|    |                |                                |  |   |   |    |    |     |
|----|----------------|--------------------------------|--|---|---|----|----|-----|
| 16 | Sustainability | Number of Households Graduated |  | 0 | 0 | 26 | 59 | 152 |
|----|----------------|--------------------------------|--|---|---|----|----|-----|

### Foyibi: Growing Beyond Food Aid

When Foyibi was five years old, Foyibi's grandparents began to notice in Foyibi a loss of appetite, discolored hair, edema in her cheeks and vomiting. Foyibi would also complain of abdominal pain and headaches. According to Florence, Foyibi's aunt and caregiver, Foyibi had not grown since she was 5 years old. In 2006, Florence took Foyibi to Rubungo health center, which is approximately 1 hour away from their home by walk. At Rubungo, Foyibi was seen by a nurse who misdiagnosed Foyibi's condition as malaria and sent her back home with malaria medicine.

Two months later, Francine, Florence's older sister, took Foyibi to Rubungo health center again because the vomiting and nausea worsened. At the health center, a different nurse placed Foyibi in the nutrition center. During her two-day hospitalization, Foyibi was given a prepared meal of beans, soy, fish, and vegetables. No Ready-to-Use-Therapeutic-Food (RUTF) packets were available. Foyibi could not eat the prepared meals because her vomiting and nausea were so severe. After spending two days at the health center without much improvement, Foyibi was brought back home at the appeal of her grandmother. This was Foyibi's last visit to a health center, and no community health worker has ever visited Foyibi's home.



We first met Foyibi at a cooking demonstration for a GHI cooperative in early June 2010. Had we not asked somebody for her age, the nine-year-old girl might have looked like any other five-year-old

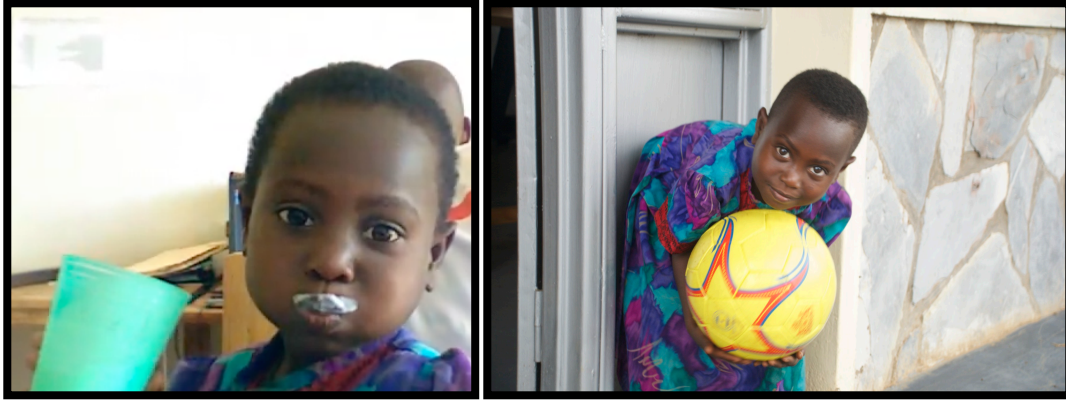
child. Foyibi had no hair on her head and edema under her eyes. She was taken to a health center where she was referred to the district hospital.



At the district hospital, Foyibi was placed on a regimen of three RUTF packets a day. Foyibi weighed in at 12kg and was discharged 11 days later, weighing 13.4kg. Upon discharge from the district hospital, Foyibi was re-referred to Rubungo health center for monitoring. No health center staff member or community health worker provided follow-up. GHI staff members visited Foyibi's household regularly after her discharge.



On September 1, 2010, Foyibi's family became the first household to participate in the Gukura Program. Simon-Pierre Nsengiyaremye, the agricultural agent based at Rubungo health center, assisted Foyibi's family start a home garden of amaranth, beans and carrots along with a nursery and compost pile. Within two months, Foyibi's family was harvesting and consuming amaranth leaves, rich in vitamin A and calcium, and beans on a daily basis. Avocado, moringa and papaya trees were also planted around the home garden. On the land surrounding the home garden, the family is growing beans and maize.



Foyibi's family is also making a concerted effort to feed Foyibi nutritious meals. The efforts have paid off. On November 1<sup>st</sup>, Foyibi weighed 13.9kg. She now has hair on her head and the edema in her face has all but vanished. More importantly, Foyibi is showing more signs of vitality, actively engaging with her environment and playing with children around her. Foyibi hopes to start school in January 2011, something that was unattainable for her.

There is still a long way to go before Foyibi's family can be considered completely food-secure, but the small successes point to the greater potential of the Gukura Program's capacity to change the lives of malnourished individuals and their families through sustainable agricultural assistance.