

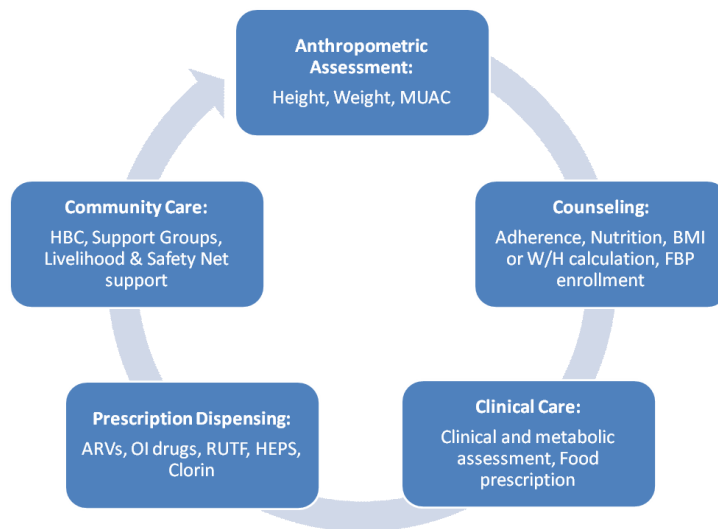
FOOD BY PRESCRIPTION PILOT IN ZAMBIA

Summary of pilot implementation and results

THE FOOD BY PRESCRIPTION MODEL

Zambia has some of the worst malnutrition rates in the region resulting from poverty and food insecurity and exacerbated by a 14.3% HIV prevalence rate. To address malnutrition in persons infected and affected by HIV, CRS-Zambia piloted the Food by Prescription model as part of the PEPFAR-funded SUCCESS Return to Life palliative care grant. Guidelines drafted by Zambia's National Food and Nutrition Commission (with technical support from FANTA) directed implementation of the pilot and provided a client flow model:

Figure 1: Client Flow Model



Adapted from Zambia National FBP Guidelines (Draft)

The Food by Prescription (FBP) model “medicalizes” food by distributing it to clients in small daily “doses” which are dispensed in health facility and community settings. Nutrition assessment, counseling, and food prescription and dispensing are synchronized with HIV treatment and palliative care services. In the health facility setting, clients collect the food as they collect their monthly medication. In this pilot, client eligibility criteria adhered to PEPFAR policy guidance on addressing food and nutrition needs.



The HEPS, produced in Zambia, was packaged in 100-gram packets. Photo by Elizabeth Jere/CRS.

Clients were discharged from the program when they were nutritionally rehabilitated (according to anthropometric criteria), usually between three to six months.

Food by Prescription is not meant to address food insecurity in the household, but rather to address acute malnutrition symptoms. Failure to improve often indicates underlying medical causes that are not being adequately managed. All FBP partners are encouraged to establish and strengthen ties with other local programs that address food insecurity.

FOOD BY PRESCRIPTION IMPLEMENTATION

Twenty sites participated in the pilot, providing nutrition services to 5,360 HIV-positive adults, including pregnant and lactating women, and HIV-positive or exposed children aged six months to fifteen years. Sixty two percent of FBP clients were severely malnourished, while the others were moderately malnourished.

Three types of HIV care and treatment sites implemented the FBP pilot: community home based care services at Catholic parishes; hospice care services (both inpatient and outpatient); and facility-based ART services. All sites integrated assessment, nutrition counseling and education, clinical and adherence monitoring, and prescribing of food into their regular HIV care and treatment activities.

The pilot followed the national guidelines in choosing two products: a Ready to Use Therapeutic Food (RUTF) and a Fortified Blended Food (FBF). The RUTF was a peanut-butter based product produced by Valid Nutrition in Malawi under the Plumpy'nut patent. The FBF was High Energy Protein Supplement (HEPS), a soy-based powder for porridge produced locally in Zambia. Adults, including pregnant and lactating women, were prescribed both RUTF and HEPS for severe acute malnutrition (SAM) in quantities that met 100% of their energy requirements per day while those with moderate acute malnutrition (MAM), received a HEPS ration equivalent to 50% of their daily energy needs. Children with SAM received RUTF and those with MAM were provided a RUTF/HEPS combination; both rations met 100% of their energy requirements per day.

RESULTS: CLIENT OUTCOMES

The overall average increase in body mass index (BMI) pre-FBP to post-FBP was 2.9 kg/m², after an average length of stay on FBP of 3.2 months. Of the 22% of clients discharged from the program across eleven sampled evaluation sites, 84% were cured (nutritionally rehabilitated), 11% had died from various causes, 4% were unknown or lost to follow-up, and 1% were removed from treatment because of medical complications. These results are in line with Sphere Standards, which were used for a lack of an alternate standard measure.

The pilot also used the Eastern Cooperative Oncology Group (ECOG) performance scale. The self-assessment scale is ranked across six grades, with Grade 0 as “fully active” and Grade 5 as “dead”. Post-intervention, only 1% of clients rated themselves “completely disabled” (Grade 4), compared with 17% pre-FBP. Fifty-one percent had become “fully active” (Grade 0) after FBP, a marked improvement from only 6% pre-intervention.

RESULTS: INTEGRATION OUTCOMES

The client flow model was found to be appropriate and acceptable in the Zambia context, and can be modified for implementation in the three types of care and treatment settings (ART clinic, hospice, and home based care). Mechanisms for quality assurance feedback are needed to monitor quality of service provision and record-keeping when integrating FBP services into decentralized community care and treatment activities.

Sites provided nutrition assessment and counseling services, but not consistently at every visit and not always comprehensively with every client. Where administrators supervised the implementation of the pilot, staff showed more commitment and demonstrated better record-keeping. The level of technical complexity in FBP ideally required a coordinator on-site with higher level of training and understanding of nutrition. Many volunteer caregivers with basic training had trouble applying the nutrition criteria and recording data consistently, although this did not correlate with their formal education levels. Rather, the consistent application of criteria and the quality of data was contingent on the service provider's grasp of nutrition concepts, and their personal motivation to provide quality services.

Food was not always dispensed from the pharmacy as per the model. For many sites it was a question of space, and for some it was due to the existing burden on pharmacy staff with distributing medication. Larger HIV care and treatment programs faced more problems with integration. Forecasting and stock management were especially challenging. Accurate reporting in general also proved to be a challenge at many sites. Indicators related to nutrition



The RUTF, produced in Malawi, was packaged in 93-gram foil sachets. Photo courtesy of Valid Nutrition.



A nurse at Wusakile Hospital uses the BMI chart to determine her client's nutritional status. Photo by Elizabeth Jere/CRS

assessment, counseling and food prescription were not routinely collected as part of existing M&E systems.

Finally, only 11% of clients reported being linked to livelihood activities. Several sites attributed the failure to link clients to the lack of programs operating in their catchment areas.

RECOMMENDATIONS

The findings support scale-up of the Food by Prescription model in Zambia, and future allocation of funding for scale-up of this initiative is recommended. Specific recommendations are the following:

- Finalize the *Guidelines for a Food By Prescription Programme in Zambia*.
- Standardize nutrition assessment as part of HIV care and treatment services, and modify the standard client treatment record system (SmartCare) to demand capture of anthropometric data such as MUAC, BMI and W/H.
- Expand the roll-out of Nutrition and HIV training to service providers, and explore methods for on-site mentorship to build skills.
- Strengthen the food commodity supply chain. Consider piloting a “pull” system. Identify opportunities for integrating therapeutic and supplementary nutrition commodities into national supply chain management systems to prevent parallel systems.
- Conduct an impact evaluation to measure longer term effects of the FBP program on clients.
- Involve pilot sites in the design of future scale-up programs.
- Design FBP models that can identify greater numbers of children, particularly those between the ages of six to twenty-four months, and pregnant and lactating women.
- Conduct thorough assessments of sites, prior to initiating FBP, that focus on key indicators of successful integration: demonstrated nutrition assessment and counseling capacity, storage space for food commodities, standard operating procedures for stock management, support from senior administration, and appropriate safety net and livelihoods linkages in catchment communities.