

Food as Medicine When Food is Scarce: The Food by Prescription Programme in Kenya

David L. Mwaniki,¹ Ruth Tiampati,² Lilia Gerberg,³ Mary N. Wachira,⁴ Andrew Fullem,⁵ and James P. Stansbury,⁶ and the AIDSTAR-One Kenya Assessment Team

BACKGROUND

HIV and food insecurity compound each other in various ways:

- HIV-infected people may be unable to work and may have to sell assets to buy food or other household necessities.
- Food-insecure household members may resort to transactional sex or other risky behavior to obtain food, thus increasing susceptibility to infection.

Interventions can:

- Bolster the nutritional status of malnourished people living with HIV (PLWH) and improve energy and immune functions.
- Prolong the pre-ART period and prevent wasting resulting from increased energy needs.
- Improve adherence of those on ART and temporarily enhance household food security.

The **Food by Prescription (FBP) Programme** in Kenya distributes supplementary food to PLWH at 61 primary facilities and 134 satellite sites.

- FBP interventions include nutritional assessment, monitoring and counseling, dispensing of energy and nutrient-dense food products, and providing safe water counseling and water treatment solution.
- The main food product provided is a fortified blended flour (FBF), a precooked corn-soy flour with added vitamins and minerals, to be made into porridge.
- For adult PLWH, the eligibility criterion is body mass index (BMI) <18.5 kg/m², and the exit criterion is BMI ≥20 kg/m².

MATERIALS AND METHODS

An AIDSTAR-One assessment team carried out a rapid mixed-methods appraisal of FBP at 16 sites in four regions of Kenya, conducting focus group discussions and interviews, in October 2009.

- Administrative data gathered included information on 10,064 visits by 5,259 unique patients enrolled in FBP between February 2006 and March 2010.
 - The majority of FBP clients (72 percent) were women.
 - The majority of clients (81 percent) attended public facilities; the rest (19 percent) attended mission clinics.
- Incidence of household food insecurity is based on a self-report checkbox on the FBP enrollment form that is marked during an intake interview with a nutritionist.

RESULTS

- Self-reported household food insecurity among FBP clients is high (>66 percent).
- Nearly 97 percent of clients receiving clinical distributions of fortified blended flours rate them as very important; providers and policymakers report strong enthusiasm for the intervention.



- FBP clients in public facilities were almost 3 times more likely than clients in mission hospitals to come from a household they describe as food insecure (OR = 2.79; 95 percent CI: 2.31–3.38) (see Table 1). This may be, in part, because public facilities tend to attract poorer segments of the population.



- After initial graduation from the program, 63 FBP clients relapsed and were re-enrolled. Relapse is over 4 times as likely for clients in public facilities compared with mission hospitals (OR = 4.44; 95 percent CI: 1.37–14.42). Odds of relapse appear higher for clients from food-insecure households (OR = 1.33; 95 percent CI: 0.65–2.70).

Table 1. FBP sites visited in AIDSTAR-One assessment, with administrative figures for food security and client severity

Province	Site Name	Type	Food Security (% Insecure)	AIDS Severity (% CD4+ <200)	Analytic N ^a
Central	Kikuyu PCEA Mission Hospital	Mission	35.5	51.7	62
Central	Nazareth Hospital	Mission	59.3	38.9	91
Central	Nyeri Provincial General Hospital	Public	60.5	35.6	367
Central	Thika District Hospital	Public	76.0	43.8	146
Eastern	Chogoria PCEA Hospital	Mission	46.9	50.9	130
Eastern	Embu PGH	Public	45.2	54.3	188
Eastern	Machakos District Hospital	Public	33.1	43.9	166
Nairobi	Coptic Hospital -Ngong Road	Mission	29.9	71.8	117
Nairobi	Mbagathi District Hospital	Public	88.1	44.3	219
Nairobi	Pumwani Maternity Hospital	Public	85.5	42.9	110
Nyanza	FACES Lumumba Health Center	NGO/ Public	82.7	51.2	104
Nyanza	Kisumu District Hospital	Public	37.5	40.6	200
Nyanza	Nyanza PGH	Public	77.6	33.9	196
Nyanza	Siaya District Hospital	Public	94.8	27.1	659
Nyanza	St Joseph's Mission Hospital – Nyabondo	Mission	4.9	48.2	61
Western	Maseno Mission Hospital	Mission	84.4	38.0	128

^aFigure is number reporting good or poor household food security. Total of 2,944 reported with 2,315 missing values. Proportion of missing data within each site varies from 1.6–69 percent. Number varies for CD4+ reporting.



CONCLUSIONS

- The clients of public health facilities tend to experience greater food insecurity than clients receiving services at mission hospitals.
- Levels of household food insecurity underline the need to better link clinical and community-based activities. To improve rates of relapse into acute undernutrition, the FBP program should link to livelihood improvement interventions that can ensure access to adequate food in the post-graduation period.
- Monitoring FBP clients' household food security while tracking rates of nutritional relapse can also better target community food security interventions.
- At the policy level, it is important to coordinate efforts between institutions concerned about food security and health institutions assuming responsibility for nutritional assessment counseling and support.
- Future quality improvement efforts should focus on the challenges faced by public facilities, drawing on the positive experiences of mission hospitals, where appropriate.

