

# Food by Prescription

**Alice Ndong** *“M.Nutr Stellensbosch”*  
**Nutrition and Dietetic Consultant**

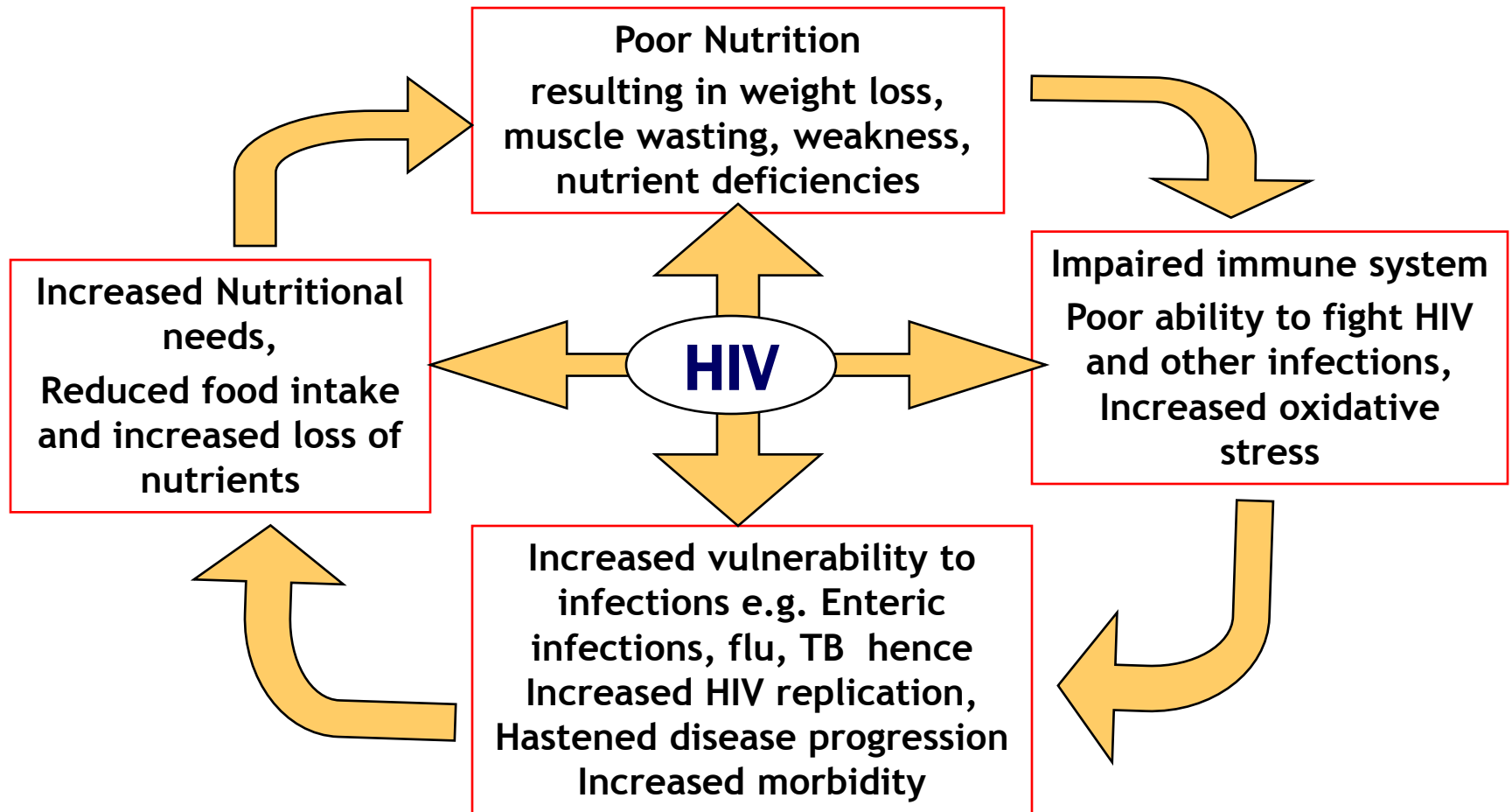
---

Center for Nutrition Education and Research

# Presentation

- Integrating Nutrition into Therapeutic Feeding and HIV-Related Care and Treatment.
- Hear about the food products being developed, consumer profiles,
- how food by prescription supports overall health and economic status of consumer,
- remaining gaps, lessons learned, and recommendations for food industry responses.

# Vicious Cycle of Malnutrition and HIV

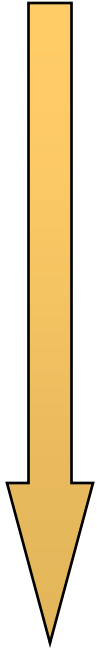


*Source:* Adapted from RCQHC and FANTA 2003

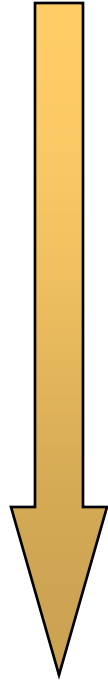
# Effects of Malnutrition and HIV on the Immune System

**Malnutrition**

**HIV**



CD4 T-lymphocyte number  
CD8 T-lymphocyte number  
Delayed cutaneous hypersensitivity  
CD4/CD8 ratio  
Serologic response after immunizations  
Bacteria killing



# Steps in Nutrition Care

- Nutritional Assessment
- Preparation of Nutrition care plan
- Conducting a counseling/education session
- Preparation for food Drug-plan
- Follow up plan
- Referral for specialized care

# Nutrition Intervention

- Good Nutritional Status
- Strengthened Immune System
- Nutrition Needs Met
- Reduced Vulnerability to Infections



# Food by Prescription

- Food distribution based on specific parameters: individualized assessment and specific entry and exit criteria
- “Specialized” high-energy food supplement fortified with micronutrients given to clients meeting specified criteria to achieve a specific nutritional goal



# Purpose/objective of FBP

- To rehabilitate (and prevent) malnutrition, correct deficiencies and supplement diet to increase energy and other nutrient intake.
- To optimize nutritional status and quality of life and reduce mortality
- To improve adherence to services or drugs, use of services and follow-up (e.g., ANC)
- To reduce duration of hospital stays and improve pregnancy outcomes

*FBP is targeted only to people  
who are nutritionally most in need.*

# *Kenyan National Guidelines on Nutrition and HIV/AIDS*

- Not all PLHIV and households affected by HIV/AIDS are food insecure and in need of food intervention or support.
- Targeting with food assistance should always be done with care, as non-HIV-affected households, which are equally vulnerable and/or poor, can be marginalized or denied assistance.

# *Kenyan National Guidelines on Nutrition and HIV/AIDS* cont.

- HIV-exposed or -infected children with weight-for-height of  $< -3$  Z scores should be provided with institutional nutritional management for at least 7 days and supported with ready-to-use therapeutic food for not less than a month.
- HIV-infected adults with a BMI of  $< 18.5$  kg/m<sup>2</sup> and children with weight-for-height (wt/ht) of  $< -2$  Z scores should be supported with food supplementation to improve their nutritional status to BMI  $> 18.5$  kg/m<sup>2</sup> (or wt/ht of  $> -2$  Z score).

# *Kenyan National Guidelines on Nutrition and HIV/AIDS* cont.

- Micronutrient-fortified food supplement providing not less than 40% of their daily caloric requirement should be provided to:
  1. Pregnant, HIV-infected women who do not gain weight for 2-3 months, especially in the 2<sup>nd</sup> or 3<sup>rd</sup> trimester, or who have a MUAC of  $< 22$
  2. Women during the first 6 months after delivery who have a MUAC of  $< 22$ .

# Requirements for food prescribed through the CCC

- Nutritionally dense
- Safe (both at home and in the facility)
- Easy to deliver to clients in quantities desired
- Palatable and acceptable to clients, especially those with poor appetite, nausea, oral sores, thrush and malabsorption
- Easy to use (prepare and consume)
- Not easy to share in the household

# Example admission criteria for food in a FBP program

## PEPFAR/USAID-supported FBP Program

### Adults (>18 years)

- Severe malnutrition after discharge from rehabilitation
- BMI < 16 (BMI < 18.5 in sites on a pilot basis) MUAC is used ONLY if BMI cannot be taken

### Pregnant and post-partum women

- Severe and moderate malnutrition, e.g. MUAC < 22 cm
- Slower than average weight gain during pregnancy
- Symptoms of AIDS
- Any other sign of micro- or macro-nutrient deficiency

# Example admission criteria for food in a FBP program cont.

**Older children (5-11 years) and adolescents (12-18 years)**

- W/H Z score  $< -2$
- OR Presence of bilateral oedema (oedema assessed by a clinician for medical causes)

# Example admission criteria for food in a FBP program cont.

## Younger children (6 months-5 years)

- W/H Z score  $< -3$ : Treat according to national (or WHO) guidelines to manage severe malnutrition.
- FBP if W/H or W/A Z score  $< -1.5$
- OR if bilateral oedema (oedema should be assessed by a clinician to rule out other medical causes). Other medical reasons (e.g. lack of appetite, oral thrush/sores) also considered.
- Born to a HIV+ parent who is malnourished (as defined above)
- Orphaned



# Example discharge criteria for food in a FBP program

## Adults

- In the program for 3 months
- AND BMI > 18.5/20 (or MUAC > 23 cm if BMI cannot be taken)
- AND no bilateral oedema for 10 consecutive days

## Pregnant and lactating women 6 months after delivery

- Received food for 6 months after delivery
- AND MUAC > 23 cm

# Example discharge criteria for food in a FBP program

## Older children and adolescents 12-18 years

- W/H Z score  $> -1.5$  (or  $> 85\%$  of reference median)
- AND bilateral oedema for 10 consecutive days

## Younger children (1-5 years)

- W/H (or W/A) Z score  $> -1.5$  and no faltering for two consecutive weighings

# Food Products

---

(From Insta)

All good sources of Macro Nutrients and Micro-nutrients

# ADVANTAGE®

was developed for pregnant and nursing mothers

- FAT : 25%
- PROTEIN :14%
- CARBOHYDRATE: 61%

# **FIRST FOOD®**

complimentary weaning porridge suitable for older infants (over 6 months age)

- FAT: 26%
- PROTEIN : 12%
- CARBOHYDRATE : 62%

# ***FOUNDATION® PLUS+***

a dry flour, convenient to prepare with water to be eaten as a nutritious boiled porridge.

- FAT : 25%
- PROTEIN :14%
- CARBOHYDRATE : 61%

# Issues to consider when integrating food into CCCs

- Time
- Staff availability and support
- Logistics (procurement and delivery schedule, flow of supplies, storage, accountability)
- Dependency issues
- Type and amount of food
- Criteria for allocation and discharge
- Family members and sharing issues

# Other support needed by PLHIV receiving FBP

- Nutrition education on importance of balanced diet
- Increased energy intake
- Hygiene and sanitation
- Food preparation demonstrations
- Drug-food plans
- Advice on how to incorporate the food into snacks meals



# Lesson learned

- Flexible of Criteria for prescription
- Education to the public, community to improve support
- Stigma and FBP

# recommendations for food industry responses

- Availability to the common market
  - Smaller packaging
  - Public education on Nutrition and availability of easy to prepare foods
  - Pricing?????