

FOOD AND
NUTRITION
TECHNICAL
ASSISTANCE



FINAL REPORT
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**Food and Nutrition Implications of
Antiretroviral Therapy (ART) in Kenya**

A Formative Assessment



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ABBREVIATIONS AND ACRONYMS

AMPATH	Academic model for the Prevention and treatment of HIV/AIDS
ART	Antiretroviral therapy
ARV	Antiretroviral (drug)
BMI	Body mass index
CIA/CIF	Community Initiative Accounts/Funds
FANTA	Food and Nutrition Technical Assistance
FGD	Focus group discussion
FPI	Family Preservation Initiative
FHI	Family Health International
HAART	Highly Active Antiretroviral Therapy
HBC	Home based care
HHI	HAART Harvest Initiative
MSF	Medicins sans Frontiers
OI	Opportunistic infections
KNH	Kenyatta National Hospital
KICOSHEP	Kibera community self help program
KENWA	Kenya Network of Women with AIDS
MAP	Multi-country HIV/AIDS Program for Africa
MTRH	Moi Teaching and Referral Hospital
NACC	National AIDS Control Council
NASCOP	National AIDS and STI Control Program
NGO	Non Governmental Organization
PEPFAR	President's Emergency Plan for AIDS Relief
PEP	Post exposure prophylaxis
PHA	People living with HIV/AIDS
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
WOFAK	Women Fighting AIDS in Kenya

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EXECUTIVE SUMMARY

Kenya is one of the 15 countries scaling up HIV/AIDS programs with support from the President's Emergency Plan for AIDS Relief (PEPFAR). Due to the interactions that can occur between ART and food and nutrients, managing nutritional implications of ART is an important component in the success of ART services in resource limited settings. Nutrition interventions in the context of ART focus on assisting PHA and caregivers to make dietary choices that manage drug side effects and promote drug efficacy and adherence. This formative assessment was undertaken to increase understanding of the food and nutrition needs of clients on ART and the kind of messages that may be needed by service providers to integrate nutrition in ART care. It is anticipated that the findings of this report will facilitate incorporation of relevant nutrition content into ART management training materials in Kenya and will inform the development of tools and materials to support effective nutritional counseling of ART clients.

The study was conducted by a consultant in partnership with a team from NASCOP. The study was carried out in 5 sites - Nairobi, Thika, Kiambu, Eldoret and Mombasa - at government and non-government health facilities and other programs providing ART. A total of 13 facilities in the 5 sites including public, private and mission hospitals, as well as NGOs and networks of PHA were visited. A combination of systematic formative research methods were utilized including focus group discussions, in-depth key informant interviews, case studies, and expert informational meetings.

Key Findings and Conclusions

1. ART programs in Kenya are perceived and largely implemented as clinical interventions with the primary focus on drugs. Other aspects of care, such as the food and nutritional needs of ART clients, are perceived as secondary issues.
2. Food and nutrition components are not adequately addressed within ART programs, and are mostly limited to awareness creation through general nutrition education and counseling at individual or support group level. Few programs have a food assistance component for ART clients.
3. Service providers (clinicians, counsellors and nutritionists) perceive food and nutrition support for ART clients from food insecure households as vital to enhancing adherence to, and effectiveness of, ART.
4. PHA and ART clients from households that lack sustainable access to sufficient food regard food assistance as critical for the uptake of ART. ARVs are perceived to be strong and toxic drugs that cannot be taken on an empty stomach.
5. Messages on nutritional care for PHA given by service providers are not standardized and in some cases are inconsistent between programs. This is due in large part to the lack of guidelines for service providers and program managers on nutritional care of PHA.
6. Most programs and facilities have no nutritionists. Nutritional counseling is routinely undertaken by other health care providers such as nurses and social workers who have minimal

training on the role of nutrition in the care of PHA. Service providers, including nutritionists, at the 2 largest national referral hospitals have not been trained in nutritional management of PHA.

7. There is a scarcity of materials and tools to support nutritional counseling of PHA in most health facilities and programs involved in caring for PHA. This is despite the fact that nutritional counseling is the main nutrition intervention offered to ART clients.
8. The nutritional counseling offered to ART clients contains key gaps in knowledge and information about interactions between food and ARVs and other medications.
9. Different institutions are currently using different approaches and cut-off points to identify nutritionally vulnerable ART clients.

Recommendations

1. It is important to speedily complete production of national guidelines on nutritional care and support for PHA to facilitate harmonization and standardization of food and nutrition related messages to ART clients.
2. Nutrition counseling should be a core intervention in ART programs. It should be integrated at all stages of ART implementation, such as during adherence counseling, regular follow-up sessions, and meetings of PHA support groups. Health facilities offering ART should strengthen their capacity to provide nutritional care and support to ART clients. Each facility should, at the least, have: a) a staff person trained in nutrition and HIV/AIDS, including the interactions between food/nutrition and ARVs; and b) the necessary equipment to monitor/assess the nutritional status of clients.
3. Core information about interactions between ARVs and food and nutrition should be integrated into ART training, as well as into continuing education forums. In addition to building capacity, this will also help facilitate consistency of the nutrition messages offered by service providers.
4. Because inclusion of nutrition information in ART training may be limited by time and resource constraints, resources for self learning should be developed and provided to those interested in learning more about nutrition. Such resources could be in a CD-ROM or as stand-alone manuals.
5. Strengthen the nutrition component in the ART training package for health care providers and in the home based care manual to include: a) localized key messages that address clients' food and nutrition needs, especially for poor clients; and b) skills in screening to identify nutritionally vulnerable ART clients who require nutritional counseling and/or food assistance.
6. Materials to support counseling and awareness generation efforts need to be developed. The materials and tools should contain specific information and key messages on nutritional care for ART clients. Such materials could be job aids cards, booklets, brochures and posters will need to be developed and disseminated to support nutritional counseling of ART clients. The materials RCQHC, FANTA, and LINKAGES developed for Uganda can be used as a starting point.

7. Since resource and logistical constraints prevent all service providers from being trained immediately, trainers of trainers will need to be identified and trained to provide service providers with training in the nutrition component in the ART and home-based training strategy. Nutritionists from the two national referral hospitals may be best suited as trainers of trainers.
8. Health workers within ART care settings require specific guidelines for screening nutritionally vulnerable ART clients to identify clients requiring food assistance or other support.
9. NASCOP needs to address key programmatic challenges to provision of food assistance to clients on ART. The challenges include identification of feasible and appropriate food baskets, resource mobilization, and mechanisms for providing food assistance to PHA and ensuring that clients themselves consume the food. A brainstorming meeting of key stakeholders from programs providing food assistance would be a useful next step.

1. INTRODUCTION

1.1 Background

The number of people living with HIV/AIDS (PHA) in developing countries who access antiretroviral drugs (ARVs) is expected to increase considerably as a result of decreased costs and international donor support. For instance, the ART program in Kenya is being scaled-up to all districts, and aims to reach 95,000 people by the end of 2005. This initiative will benefit from the United States President's Emergency Plan for AIDS Relief (PEPFAR), which supports 15 countries to reach more people with antiretroviral therapy. However, the coverage targets being proposed in the Kenyan program are still relatively small: of the 220,000 people estimated to need ART, 95,000 are targeted. Nevertheless, more PHA in resource limited settings and who are experiencing food insecurity will be accessing ART in Kenya. It is therefore necessary to address and strengthen food and nutrition components of ARV programs.

Nutritional care and support of clients is an important part of successful ART. Interactions between ARVs and food and nutrition significantly influence the success of anti retroviral therapy by affecting adherence to drug regimens, nutritional status of PHA and drug efficacy. Some ARVs are recommended to be taken with food, others on an empty stomach, and still others are contraindicated with certain foods. Some ARVs reduce nutrient absorption or metabolism and may require increased intake of foods rich in specific nutrients or may require nutritional supplementation. Certain ARVs cause side effects that affect food consumption, and some side effects can be managed by specific food responses. Interactions between ARV drugs and traditional remedies as garlic need to be considered.

Managing interactions between ART and food and nutrition influences the extent to which the therapy is effective in improving the quality of life of PHA and slowing the progression of HIV. Appropriate nutritional management of ART clients helps improve drug efficacy, tolerance, safety and adherence and helps maintain clients' nutritional status. PHA have special nutritional needs such as increased energy requirements. In addition, proper nutrition would help strengthen the immune system, manage opportunistic infections, and could contribute to slowing the progression of the disease. Maintaining adequate food consumption and nutrient intake levels to meet the special nutritional needs of PHA is therefore important.

Food insecurity can pose significant challenges to proper management of food and nutrition implications of ART. Poor access to food can prevent ART clients from obtaining sufficient quantities of the foods needed to maintain healthy dietary intake and manage side effects and interactions between drugs and food. Given the target for ART coverage in Kenya and given the prevalence of food insecurity, addressing food and nutrition issues related to ART is an important part of ensuring successful ART.

1.2 Purpose and research questions

The scale-up of ART means more Kenyans living with HIV/AIDS—especially those of lower social-economic status – will access antiretroviral therapy (ART) in the next few years. Managing nutritional implications of ART will therefore be an essential component in the success of ART services in resource limited settings in Kenya. Nutrition interventions will need to focus on

supporting ART clients and caregivers to make dietary choices that manage drug side effects and promote drug efficacy and adherence. Unfortunately, existing ART and home-based care programs in Kenya generally contain very few if any food and nutrition components. Materials used for training service providers lack a comprehensive and technically sound nutrition component. To effectively integrate food and nutrition into ART services will require an understanding of the specific food, nutrition, and information needs of ART clients, and an understanding of the messages and materials ART service providers require for counseling ART clients and training in nutritional aspects of ART.

The purpose of the formative research was to better understand the specific food and nutrition needs of clients on anti-retroviral therapy and the kind of support that service providers need to enable them to integrate nutritional care of clients on ART. The findings of the study are intended to inform the design of nutrition materials and program activities for HIV care and inform the nutrition components of the ART training guide for service providers and that of the home-based care training manual. To realize these objectives, the research sought to answer the following questions:

1. *What nutrition (related) actions are needed to support the nutrition of people on ART?*
 - a) How ART is affecting clients' food and nutritional needs.
 - b) The strategies clients are using to deal with any additional food or nutrition needs caused by the disease or its treatment.
 - c) Common constraints faced in managing food and nutrition implications of ART (e.g. income/food production, information, perceptions, stigma).
 - d) The types of support needed to deal with these needs and constraints.
 - e) The information clients need to enable management of nutritional implications of ART (e.g. recurrent questions on the topic area).

2. *How can appropriate nutritional care and support be provided to people on ART (including the support that service providers need to provide care and support)?*
 - a) The kind of information service providers need to effectively implement nutrition and food component of ART.
 - b) Gaps in current information/materials on nutritional needs of PHA on ART.
 - c) The types of tools and training needed by service providers to enable improved management of nutritional implications of ART.

2. STUDY METHODS

2.1 Study Sites

The study was conducted by a short term FANTA consultant in partnership with NASCOP and implementers of ART and HBC services in Kenya (e.g. FHI, Pathfinder, CDC and MSF Belgium). The study was carried out in 5 sites - Nairobi, Thika, Kiambu, Eldoret and Mombasa (Map 1) within government and non-government health facilities as well as programs providing ART (Figure 1).

Figure 1: Map of Kenya – Study Sites



Seven (7) hospitals and six (6) programs providing ART services were visited. Clients, health workers and coordinators of ART programs at these 13 institutions were interviewed:

5 Public hospitals

1. Kenyatta National Hospital – National referral and teaching hospital - Nairobi
2. Moi training and referral hospital (MTRH) - Eldoret
3. Thika district hospital - Thika
4. Coast provincial general hospital - Mombasa

5. Mbagathi Hospital: MSF Belgium

2 Private/mission hospitals

1. Coptic hospital - Nairobi
2. Nazareth hospital - Kiambu District

6 NGOs and networks of PHA - Nairobi

1. AMREF - Kibera
2. Women fighting AIDS in Kenya (WOFAK)
3. Kibera Community Self Help Program (Kicoshep)
4. Medical Mission Sisters Health Program –Korogocho slums, Nairobi
5. Kenya Network of Women with AIDS (Kenwa)
6. Medicines San Frontiers - Belgium

Participants in the study included 1) ART users, 2) health care professionals involved in providing or supervising ART /HBC services, 3) members of support groups for PHA in the study sites.

Services Offered

Most clients on ART were on the first line ARVs recommended by NASCOP, i.e. starvudine, lamivudine and nevirapine. Typically, for those who react to nevirapine and those on T.B therapy, nevirapine is replaced with stocrin. The first choice of second line ARVs provided are zidovudine, didanosine and lopinavir/ritonavir, while the second choice of second-line ARVs provided are zidovudine, didanosine and nelfinavir. Sources and cost of the ARVs used varied. For instance, MSF Belgium provides free medical care and free ARVs to all clients while the government hospitals visited sold ARVs at the MOH recommended price of Ksh. 500 for a monthly dose. ARVs at private hospital pharmacies like Coptic and KNH hospital ranged in cost between Ksh 1,500 and 2,000 for a monthly dose.

Both public and private hospitals visited had copies of the MOH NASCOP guidelines, “Guidelines to Antiretroviral Drug Therapy in Kenya” December 2002. Most facilities and programs offered adherence counseling to potential ART clients in line with the MOH-NASCOP guidelines. All ART clients interviewed reported having been counseled prior to initiation of ART. Institutions monitored adherence to ART using different systems. For example, MSF Belgium utilizes the Meds computer system to monitor adherence and detect defaulting, and MTRH relies on a physical count of pills taken or not taken whereby clients are asked to bring along packets of pills when collecting new prescriptions.

Nutrition counseling and education/advice was rarely a component of ART. Where counseling and education was done, it was provided by a different cadre of service providers including medical and clinical officers, nurse counselors, nutritionists, social workers, pharmacists and community based health workers. Only Coptic Hospital’s Hope clinic had a trained dietician well versed in nutrition for PHA and ART clients. Nutritionists at the 2 largest referral hospitals – Kenyatta National Hospital (KNH) and Moi Teaching and Referral Hospital (MTRH) had not received training on nutrition and HIV/AIDS.

Table 1: Summary of facilities and programs visited and core services offered

Program	Core Services	Resource persons
<p>Public hospitals</p> <p>Kenyatta National Hospital Comprehensive care clinic & Patient support center</p>	<p>Comprehensive management of all PHA</p> <ul style="list-style-type: none"> ❑ Nutritional support - Nutritional assessment using anthropometric measurements; counselling & development of individualized diet plans: Resources- Nutrition and HIV/AIDS brochure (GTZ/MSF), Five (5) Food groups pictorial chart ❑ Psychosocial support (individual and group therapy) ❑ Voluntary counseling and testing ❑ Clinical care – PEP, ARV & treatment of OI's 	<ul style="list-style-type: none"> ❑ 54 nutritionists - Degree /diploma
<p>Moi Teaching and Referral Hospital (MTRH) – AMPATH</p>	<p>A care provider system built around a trained team of clinical officers, doctors and nutritionists</p> <ul style="list-style-type: none"> ❑ Adult and Pediatric comprehensive clinical care for PHA– ART and management of OI's. Common clinical protocols are used at all sites ❑ Voluntary counseling and testing ❑ Nutritional counseling for ART clients ❑ Targeted food support for PHA and ART clients based on food prescription by a nutritionist. ❑ Outreach support services by groups of trained PHA 	<ul style="list-style-type: none"> ❑ Nutritionists -- attached to adult and pediatric ARV clinics at the MTRH ❑ Mosoriot- HAART and Harvest initiative certificate level nutritionist
<p>Thika District Hospital</p>	<ul style="list-style-type: none"> ❑ VCT, ARVs, OIs ❑ Medical care ❑ Nutritional counseling using food guide pyramid and food samples 	<ul style="list-style-type: none"> ❑ Nutritionists- Diploma level (from Karen)

Coast Provincial General Hospital	<input type="checkbox"/> Counseling <input type="checkbox"/> Medical care – OIs and ART, PEP <input type="checkbox"/> Nutritional counseling done routinely by nurses. A nutritionist comes to the ARV clinic once a week to handle special cases. <input type="checkbox"/> Follow up counselling of ART clients	<input type="checkbox"/> Nurse counselor <input type="checkbox"/> Nutritionist –Diploma level (from Karen)
Private hospitals		
Coptic Hospital – Hope clinic	<input type="checkbox"/> VCT <input type="checkbox"/> On-going support counseling <input type="checkbox"/> Nutritional counseling & development of individualized diet plans- Main reference - FANTA guidelines on nutritional care & support for PHA <input type="checkbox"/> Medical care – ART, OIs and PEP	<input type="checkbox"/> Dietician- Degree level
Nazareth hospital	<input type="checkbox"/> VCT <input type="checkbox"/> Health and nutritional counseling – A 3 food group guide in English and Swahili used in counseling and given to ART clients <input type="checkbox"/> Community outreach <input type="checkbox"/> Medical care – OI's and ART <input type="checkbox"/> Group therapy for PHA	<input type="checkbox"/> Clinical officer <input type="checkbox"/> Social worker
Programs with an ARV component		
AMREF - Kibera	<input type="checkbox"/> VCT <input type="checkbox"/> Target food support based on assessment of nutritional status (anthropometry) and social economic status <input type="checkbox"/> Nutritional counseling <input type="checkbox"/> Medical care – ART, OI's <input type="checkbox"/> Psychosocial support – group therapy	<input type="checkbox"/> Nutritionist – Diploma level <input type="checkbox"/> Community health worker
Belgium (MSF-B) HIV/AIDS Program – Mbagathi hospital	Provision of continuum of care for PHA <input type="checkbox"/> Free VCT <input type="checkbox"/> Free medical care for PHA <input type="checkbox"/> Nutrition education and counselling <input type="checkbox"/> HIV prevention activities – distribution of IEC, condom distribution <input type="checkbox"/> Psychosocial support <input type="checkbox"/> Advocacy	<input type="checkbox"/> Nutritionists – Diploma and certificate level
Medical Mission Sisters Health Program –	<input type="checkbox"/> VCT <input type="checkbox"/> Health and nutritionist counseling <input type="checkbox"/> Clinical management - ART.OI's	<input type="checkbox"/> Nurse counselor <input type="checkbox"/> Community health workers

Korogocho	<input type="checkbox"/> Pastoral care <input type="checkbox"/> Children's program - Training and support for children of PHA <input type="checkbox"/> Provision of ARVs (started in May 2004) <input type="checkbox"/> Home based care <input type="checkbox"/> Targeted food support- cooked food & dry rations provided to the very sick in the home-based care program or those with T.B <input type="checkbox"/> Palliative care – small hospice	
Women Fighting AIDS in Kenya (WOFAK) - national NGO	<input type="checkbox"/> Medical care – conventional and alternative medicines <input type="checkbox"/> Nutritional counseling <input type="checkbox"/> Individual and group counseling – 2 booklets <input type="checkbox"/> Home and hospital visits <input type="checkbox"/> Food support for very needy & bed-ridden clients on T.B therapy <input type="checkbox"/> Promotion of income generating activities	<input type="checkbox"/> Nurse counselor <input type="checkbox"/> Social worker
Kenya network of Women with AIDS (KENWA)	<input type="checkbox"/> Advocacy and care and support <input type="checkbox"/> Nutritional counseling <input type="checkbox"/> Nutritional care – feeding at drop in centers & delivery of porridge to sick & bedridden PHA <input type="checkbox"/> Clinical care at drop in centers <input type="checkbox"/> Home based care <input type="checkbox"/> Support for Iga's <input type="checkbox"/> Group therapy	<input type="checkbox"/> Social worker <input type="checkbox"/> Community health care workers (CHW's)
Kibera community self help program (KICOSHEP-K)	<input type="checkbox"/> Home based care <input type="checkbox"/> Medical care – Kicoshep clinic <input type="checkbox"/> Support in initiation of Iga's <input type="checkbox"/> Awareness creation for HIV prevention targeting the youth <input type="checkbox"/> Support program for orphans of PHA <input type="checkbox"/> Advocacy <input type="checkbox"/> Group therapy and counseling <input type="checkbox"/> Nutritional counseling	<input type="checkbox"/> Nurse counselors <input type="checkbox"/> Social workers <input type="checkbox"/> Community health workers

2.2 Data Collection Methods and Tools

A combination of systematic formative research methods was used to collect information. These included 1) focus group discussions; 2) in-depth interviews; 3) case studies, and 4) information meetings with “expert” representatives from communities, support groups and health providers. Annex 1 provides a summary of the focus group discussions and in-depth interviews that were conducted. Prior to beginning the assessment, guidelines were developed for gathering information through focus group discussions and in-depth key person interviews. One set of questions and topics was targeted at program managers and service providers another set focused on ART clients. These topics are given in Annex 2.

Focus group discussions were held with groups of ART clients, members of PHA support groups, CHWs, and program field staff. Most of the members of PHA support groups involved in the assessment were ART clients. Consent for PHAs participating in focus group discussions was obtained in advance both from the individual group members and from the health facilities and organizations. The leaders of the AIDS support groups and programs preferred that discussions be scheduled on the day, time and location where the support group normally held their periodic group meetings. This was done to make sure it did not disrupt the routine operations of the support groups. The social worker(s) or counselor responsible for organizing and facilitating the group meetings were also interviewed. In several instances, these were also PHA working for the institutions who had taken initiative in forming the groups and who served as the focal persons in organizing and facilitating therapy sessions. The discussion sessions typically lasted between 45 – 90 minutes. Consent to record the proceedings, undertake a case study, or take photographs was sought from relevant institutions and the individuals.

At the health facilities visited, key informant interviews were held with the medical officers in charge of ART programs, key persons involved in nutritional counseling of ART clients such as nurse counselors, nutritionists, dieticians, social workers and clinical officers. Pharmacies were also visited and pharmacists and pharmaceutical technologists involved in dispensing ARVs were interviewed. During these interviews, samples of materials and tools used in nutrition assessment and counseling were collected.

The key informant interviews and focus group discussions were conducted primarily in Swahili. Team members assisted in taking notes of the discussions. Institutions and members of support groups of PHA visited declined to have the discussions taped.

2.3 Data Analysis

Information from the focus group discussions and in-depth key person interviews was analyzed based on the question guide to capture the key points emerging from the discussion on each topic. Key points covered the full range of opinions expressed in the discussion and represent both the most common comments from participants as well as any significant differences that emerged. Examples, notable quotes or memorable comments of particular interest from participants that illustrate key points are included in the results.

During the assessment, case studies of some ART clients were profiled to get a deeper insight into their personal experiences with food and ARVs. Names have been changed to conceal the identities of those profiled.

3. STUDY FINDINGS

The findings are presented according to the study objectives and research questions. Information from interviews, focus group discussions, and information meetings is threaded together in presentation of the results. Case studies on personal experiences of some ART clients that illustrate particular issues are presented as well.

3.1 Perceptions of the role of food and nutrition for ART clients

3.1.1 Perception among PHA of the role of food and nutrition

PHA recognized and underscored the importance of adequate food. ART clients saw adequate access to food as essential to successful ART for several reasons:

1. Fear of taking ARV's on an empty stomach because they were considered to be "highly toxic drugs". Most ART clients were not aware that some ARVs actually need to be taken on an empty stomach.

Moi Training & Referral Hospital (MTRH) ...Female Client: *"I do not know whether I could have managed to stand the toxicity of the ARV drugs if I had not got food from the farm."*

Community based service providers at Korogocho indicated that adequate food was always perceived by clients from low resource settings as a prerequisite to uptake of ARVs: *"ARVs are normally regarded as "very strong drugs" that are not appropriate for people who are unable to 'eat well' – consistently"*.

Besides ART, food was also cited as particularly important for PHA taking various other medications for OIs, but especially TB medication. PHA who had been on TB medication observed that in addition to the drugs being very strong, they also caused nausea when taken on an empty stomach.

2. To reduce side effects associated with ARV drugs. Dry mouth, discomfort on an empty stomach, and dizziness were some of the side effects that caused ART clients to eat more or eat particular types of food.

An ART client at Nazareth Hospital stated, *"Immediately after I started the drugs I felt discomfort on an empty stomach; a feeling that faded with eating"*. As a result, most ART clients kept "snacking" to ensure their *"stomachs were not empty, and for the body to remain strong to handle the drugs"*.

3. To maintain strength and/or reduce weakness caused by the drugs. A number of ART clients indicated that they felt weak and lost strength from taking the ARVs, especially during the first three months of taking the drugs.

CASE STUDY 1: HAART Harvest Initiative – Mosoriot, Eldoret

Jimmy is 38 years and works at the HHI farm in Mosoriot- Eldoret, He separated from his wife after he disclosed to her his HIV status. They had one child in 2000. Jimmy spent most of his early life as a truck driver plying the Nairobi-Bungoma route. His health started declining in 1991 when he developed a persistent cough and started losing weight. In 1992 he tested HIV positive and was subsequently diagnosed with TB. Due to poor health, he lost his job as a driver and later sought employment as a tout. Asked about access to food and his feeding habits during this period, Jimmy recalled that his feeding habits were poor due to both the T.B medication and depression as he tried to come to terms with the diagnosis. He reported having used most of the little money he earned on alcohol and cigarettes and had little remaining for food. While on medication for TB, he experienced general weakness, nausea, vomiting and a depressed appetite. By the time he started taking ARVs in December 2000, he was only 45 kg. He was however lucky to be employed on the HHI farm where he has worked since its inception in 2000. After joining HHI he received counseling and gradually stopped taking alcohol and cigarettes and focused more on eating wholesome food produced on the farm.

Jimmy observed that after starting on ARVs, he used to get very hungry but was lucky in that he could eat to his fill since food is abundant on the farm. He now eats balanced meals 3 times a day. He says the secret to staying healthy while on ARVs is to eat well until one is full, and also to snack so that the 'stomach always has something'. He says he has learnt this because he would feel dizzy after taking ARVs on an empty stomach. He has over a period of 2 years seen his weight rise from 51kg to 69kg. He attributes this to having had access to both ARVs and adequate food.

4. To increase body weight. Most ART clients started the drugs after they had lost a lot of weight and this bothered them a lot, as they looked sickly and it was evident that they had AIDS.

A member of the Nazareth Hospital ART clients Focus Group Discussion: *“Food is the cornerstone for me. ARVs are helpful because they boost my immunity and help me not to fall sick. However, I know that if I don't eat well, my 'graph' will go down: I will lose weight - and losing weight depresses me.”*

5. To improve immunity and fight disease. Most ART clients were emphatic that food and food supplements are of primary importance in boosting their immunity and improving their ability to fight diseases.

Client at Kiandutu slums, Thika; *‘ARVs are good... but for me, food is the first and most important 'medicine' as it gives my body the strength to fight diseases’.*

It also seems the perception on the importance of food/nutrition is based on information that ART clients have been exposed to. A nurse counselor with the Medical Mission Sisters Health Program in Korogocho observed, *“some poor PHA who are potential ART clients have often expressed concern that ARV drugs are only suitable for people who can afford to eat well. Subsequently, some clients have delayed or refrained from taking ARVs because of lack of sustainable supply of food in their homes”.*

3.1.2 Perception among service providers on the role of food and nutrition for ART clients

Clinicians, counselors and nutritionists involved in management of ART clients concurred that food and nutrition are essential to successful use of ARVs and are increasingly becoming a concern to many ART clients. The main issues service providers raised about the role of food and nutrition in ART are the following:

1. Clients on ART are increasingly concerned with issues of food and nutrition. According to health providers, ART clients often ask many questions related to food and nutrition during individual and group therapy sessions. It is also evident that the majority of PHA (including ART clients) use nutritional supplements and/or natural food and herbal therapies to boost their nutritional and immune status.

Nutritionists at KNH and Coptic Hospital observed that *“PHA take recommended dietary regimes seriously. The questions they raise and the experiences they share during follow-on sessions show us that they are getting a lot of information from other sources and are very concerned with what they eat”*.

The Chief Nutritionist at KNH observed that, *“Clients will try anything they hear as being useful to them. All they want is to have relief of their suffering and to gain weight. Many have recorded notable weight gain with some even getting overweight”*.

2. HIV/AIDS presents new food and nutrition implications that most health providers were not conversant with and which they can do little about without outside support.

The nutritionist and nurse counselors at MTRH observed, *“Our ART clients often come from poor homes and lack food. Previously they explained their problems to us but as health workers we had little to offer them until we started the food/shamba program where we can refer them for food relief”*.

The Chief Nutritionist at KNH noted that, *“Most times the health providers and even our nutritionists can't respond to the needs of the clients. They have not been trained on nutrition and HIV/AIDS. They have no guidelines or protocols to help them adequately respond to the questions and concerns of ART clients. We are all depending on what we gather from books and magazines here and there.”*

3. Most of the PHA starting on ART at sites visited are malnourished. Service providers and ART program managers at the hospitals and programs visited said that the majority of clients are malnourished when they begin the treatment. Most of PHA qualifying for ART are in (WHO) stage 3 or 4 of HIV.

The ARV program coordinator at Thika district hospital noted that, *“Food for ART clients is critical as ARVs and other OI drugs are generally very strong for the weak patient, and may also not be effective in a severely malnourished, weakened body”*.

Program experience at Thika hospital *“indicated that those who adhered to prophylaxis for TB and ARVs, and followed the nutritional advice they got from the health workers gained weight well and some were even overweight within 6 and 12 months after initiation of ARVs”*.

4. The importance of nutrition in health care is understood, and especially the role of nutrition in affecting the efficacy of the drugs and ensuring immunity. Health workers understand this both through their training and through observation.

The medical officer at the MSF Belgium HIV clinic based at Mbagathi hospital noted that, “*Some poor ART clients have benefited clinically from ARVs through improved CD4 counts and reduced viral load but have continued to lose weight. These are normally clients from poor backgrounds and this may point to the unmet need for food support. We are now convinced that food is key to the success of treatment with ARVs*”.

In WOFAK’s experience with clients on ARVs, malnourished persons do not respond as well to ARV therapy as those who are well nourished.

5. ARVs are perceived to be toxic, especially in combination with other drugs used to treat OIs.
The medical officer at the MSF Belgium HIV clinic based at Mbagathi hospital felt that the issue of food is particularly important because the majority of clients on ART (> 80%) are on multiple drug therapy. “*I estimate that more than 80% of all ART clients we serve at the facility are on antibiotics for management of various OIs, and a further 20% are on medication for tuberculosis. The majority of ART clients are also on septrin prophylaxis. This is a high pill burden: it could lead to generalized weakness that can be ameliorated through eating well. Food is important to facilitate utilization of this cocktail of drugs*”.

A nurse counselor involved in the home based care at Korogocho slum sadly noted that, “*Most ART clients who do not eat well and have poor nutritional status are killed by these medicines. I see them getting weaker and weaker and they go down. They are very toxic drugs if one’s body is not strong enough to hold them*”.

6. Poor access to food leads to ineffective ART. Program managers interviewed were concerned that the national roll out plan on ARVs did not include a complementary package for food support to ART clients. There was a feeling that adherence to and effectiveness of the ART would be severely comprised due to widespread household food insecurity that is rampant in the country.

A program manager with WOFAK observed that, “*To date, food insecurity is the main impediment to adherence to ARV therapy among ART clients in rural areas. An assessment conducted by WOFAK among its ART clients in Homabay district (early 2004) indicated that limited access to food was cited as a major impediment to quality of care for ART clients. Several people during the assessment reported having stopped taking ARVs due to “lack of something to eat before or after taking the medicine*”.

One woman explained how she repeatedly experienced nausea after taking ARV’s on an empty stomach, ‘I keep feeling like vomiting yet there is nothing to vomit’.

3.2 Changes in food intake by ART clients

Most PHA and ART clients reported having taken food and nutrition related steps to safe guard their health upon learning of their HIV positive status. Overall, most respondents pointed out that since learning of their HIV status, they were very particular about what they ate, ensuring that they eat at least one balanced meal in a day. Table 1 gives changes in diet that PHA reported making after learning of their HIV status or after beginning ART. ART clients reported that during the first one

to three months on ART, they experienced side-effects that affected their eating, like vomiting, general weakness and nausea. Also commonly cited was a marked increase in appetite or nausea associated with “an empty stomach”.

A woman in a WOFAK support group in Kayole reported how she had changed her eating saying “*When one is on ARVs one needs ‘heavy’ food that holds/lasts in the stomach such as sweet potatoes but not light foods like porridge and bread.*”

Several health workers reported that in the follow-up after initiation of ART, “*ART clients complained of hunger and the need to eat at all times: many questions related to food and nutrition are raised both at personal and group sessions*”.

Dietary modifications are mostly based on advice received from health care providers, counselors, community health workers (CHW) or peers. PHA were exhorted to live full lives since ‘they are not disabled’. AIDS Support Groups emerged as an important source of information about food and nutrition issues. Some programs had produced and distributed to their clients materials about food and information. For instance, WOFAK has produced two booklets - “Nutrition: Your Cure to Everyday Ailments” and “Food for People Living with HIV/AIDS”.

Nutritionists at KNH noted, “*We do demonstrations of preparation of nutritious foods for forums of PHA. Programs without nutritionists occasionally invite individual “experts” to discuss nutritional issues of interest with group members*”.

Table 2: Dietary changes reported by PHA and ART clients

<u>Dietary modifications by PHA</u>	<u>Dietary modifications specific to ART clients</u>
<ul style="list-style-type: none"> • Substitution of foods considered more “friendly” to their stomach/health. Several clients described how, after experiencing health problems, they had substituted their traditional dishes with dishes that are easier to digest (not causing constipation or stomach blotting) and more nutritious dishes, like ‘omena’ - sardines. 	<ul style="list-style-type: none"> • Consumption of “heavier foods”. ART clients who reported experiencing a sharp increase in appetite reported switching from eating light foods like bread to heavier foods, which ‘hold the stomach’ like sweet potatoes and matoke.
<ul style="list-style-type: none"> • Increased use of natural food remedies, the common ones being garlic, ginger and honey. These foods are eaten raw and used in salads or as herbs in the preparation of most dishes. Normally, these remedies are promoted by networks of PHA and nutritionists/health workers working with PHA. These remedies are said to boost immunity and to have therapeutic benefits for conditions such as oral thrush and flu. 	<ul style="list-style-type: none"> • Taking snacks throughout the day. Generally, ART clients reported that they were advised “against hunger”. In an effort to comply with this, porridge is taken as the main snack. A FGD in Mathare slum told of how they ate at every opportunity in order to stay healthy and live long enough to look after their children.
<ul style="list-style-type: none"> • Adoption and use of certain foods believed to be nutritionally rich such as ‘power porridge’¹ that is being promoted and used widely among PHA especially members of AIDS Support Groups in Nairobi. The product is also found in shops and supermarkets in most parts of the country. 	<ul style="list-style-type: none"> • Modification of the preparation method for some foods. For instance, light steaming instead of frying vegetables, done in an effort to preserve nutrients. However, a few ART clients indicated that steamed vegetables are difficult to digest especially when one has stomach problems.
<ul style="list-style-type: none"> • Use of locally available food supplements, such as flour from roasted soya. This is widely used to enrich different dishes for PHA, such as ugali or stew. 	<ul style="list-style-type: none"> • Drinking a lot of water or juices during the day. This is associated with reducing the toxicity of the drugs in the body, and also to reduce feelings of nausea or dry mouth.
<ul style="list-style-type: none"> • Consumption of more fruits and indigenous green vegetables – they are widely perceived as being immune boosters, they also provide comfort “for constipation problems”. 	<ul style="list-style-type: none"> • Fruits are also eaten to reduce nausea and dry mouth, or “changes in taste in the mouth”.
<ul style="list-style-type: none"> • Reduction in intake of certain foods such as sugar, fat, soft drinks and alcohol. These foods are believed to be unhealthy and unsuitable for PHA. Some programs gave this as a blanket recommendation for all PHA while others spelled out specific conditions when certain foods should be avoided. 	
<ul style="list-style-type: none"> • Substituting red meat with white meat in the diet. The main reason given was that red meat is believed to be more difficult to digest and therefore inappropriate for PHA. 	

¹ Power porridge is made from a blend of 14 different types of legumes and cereals milled together with dried fish. Ingredients include beans, green grams, black beans, soya beans, groundnuts, cassave, wheat, simsim, kunde, finger millet, maize, pigeon peas, dried fish and peas.

3.3 Challenges in managing food/nutrition implications of ART

The main challenges faced in managing food and nutrition implications of ART centered on:

- i. Limited access to food – limited income or means of food production.
- ii. Stigma directed at PHA and their businesses.
- iii. Inadequate or conflicting information on food and nutrition issues (due to inadequate personnel to contact counseling and education, and limited knowledge, skills, and materials among workers about nutrition and HIV/AIDS).

3.3.1 Challenge I: Limited access to food

Inadequate or unreliable sources of income to purchase food and other basic necessities were often cited as a common challenge among ART clients. Lack of access to sufficient nutritious food reduces the capacity of ART clients to meet their food and nutrition needs and manage implications of ART. Access to money for the majority of ART clients depends on access to casual jobs or self-employment or productivity, which has been compromised as a result of HIV.

The nutritionist and nurse counselors at MTRH observed, “Many ART clients from rural and even urban areas are generally have poor access to food. They attribute this to limited sources of livelihood as a result of loss of jobs due to their HIV status or the subsequent reduced productivity.”

One male participant in a focus group in Kibera recounted how he lost his casual job at a construction site when he contracted T.B. *“This left me with no source of livelihood for the duration that I had T.B. My health and weight deteriorated markedly as I had no food to eat most of the times”*.

Lack of food was cited as a major impediment to quality of care for the clients on ART in an assessment carried out by WOFAK (2004) among ART clients in Homabay. A program manager with WOFAK expressed concern that the national roll out plan on ARVs did not include a complementary package for food. *“Adherence to ARVs therapy will be severely comprised due to rampant household food insecurity in the country. If the food issues are not addressed in the roll out plan for ART, the HIV issue will have only been addressed halfway”*.

ART clients from poor backgrounds (slums and rural areas) always mentioned food access as a key problem and often gave poor access to food as a reason for poor adherence to ARVs and T.B medication. A counselor with KICOSHEP at Kibera slums narrated how some ART clients had given up or delayed taking ARVs due to food insecurity at household level. The same was reported by ART clients in Homabay, and Korogocho slums.

3.3.2 Challenge II: Stigma directed at ART clients

Stigma directed at ART clients in two main areas was reported to affect access to food and nutritional practices: in the workplace and at home. Women on ART reported facing stigma which affected their ability to be gainfully self-employed. Most PHA start on ART while in HIV stage 3 or 4, by which time they have pronounced wasting and have frequent episodes of illnesses. They are therefore suspected to be HIV positive by the neighbours/community.

During a FGD in Mathare, a middle-aged woman reported, “ *Obvious stigma is directed at us and our business ventures are discriminated against. People abstain from buying goods (groceries or foods) and services from persons known or believed to be HIV positive for fear of getting infected. Those known or suspected of being HIV positive find it difficult to get casual work e.g. laundry*”.

Even after taking ARVs and experiencing improvements in health, stigma continues to be directed at ART clients and their businesses. This affects their productivity and income. One client explained that this is why they still need psychosocial support for depression even after recuperating physically.

Few ART clients have disclosed their HIV status to relatives or friends for fear of stigmatization. They hence find it difficult to address issues of their special food needs within the household. Most ART clients in stages 3 or 4 are under the care of the extended family, who often also require food support themselves.

The few PHA interviewed who reported having disclosed their HIV status to their families were men, and they did not report any incidences of stigma from their family members that made it more difficult to meet special food needs.

A middle-age lady in a WOFAK/Kayole reported “ *I moved to stay with my nephew and family. They did not know my HIV status. I could see that there was a food problem in the house and even if I needed more food I could not ask for it lest they think I was fussy*”.

3.3.3 Challenge III: Inadequate nutrition information and support

Overall, the introduction of ART has increased the need for individualized and/or focused nutritional counseling and advice for ART clients.

The WOFAK program manager stated that “ *while it is true that programs can't provide needy ART clients with food all the time, it is nevertheless important to give necessary information about dietary practices ART clients should follow*”.

Most services/programs visited did not provide these services and most providers (including nutritionists) indicated they were ill prepared to handle this specialized counseling. Where nutritional counseling was done, the information provided was general and did not address specific food and nutrition conditions experienced by PHA or ART clients. Several program officers and clinicians interviewed pointed out that it was crucial for all programs offering care to PHA to engage a nutritionist who can offer nutritional counseling to PHA. Nurses and other counselors are not well equipped to handle this component.

There were indications that conflicting information about food and nutrition and HIV/AIDS is provided by different programs. This was said to cause confusion among PHA and ART clients. The Program manager with the Kibera HIV project for instance expressed concern that, “ *There are five (5) or more NGOs dealing with care of PHA in the Kibera slum. PHA often get membership with several of the programs concurrently and reap benefits from the different programs. Many times they are given conflicting information about what food is good for PHA and what is not*”.

A social worker with KICOSHEP further illustrated this when she narrated her dilemma after two reputable health professionals invited to address nutrition issues gave conflicting information on meat – with one condemning red meat while a second recommended it as suitable for PHA.

Key confusing information included:

Some programs emphasize a “balanced diet” while others recommend specific foods with high content of particular nutrients perceived to be important for PHA--such as foods rich in vitamin A, selenium and zinc.

Some organizations and counselors emphasized three food groups while others talked of five food groups as a way to obtain a nutritious diet.

Recommendations differed about which foods are suitable for PHA during asymptomatic and symptomatic stages of the disease. For instance, there were concerns on the safe management and preparation of the popular “Power porridge”. Power porridge is made from a blend of 14 different types of legumes and cereals milled together with dried fish. Ingredients include beans, green grams, black beans, soya beans, groundnuts, cassave, wheat, simsim, kunde, finger millet, maize, pigeon peas, dried fish and peas. PHA expressed concern that the high legume blend flour that was recommended did not keep well but got bitter after about 2 weeks. There was also lack of uniform guidelines on proportions of legumes and cereals to be milled to make the ‘power flour’.

3.4 Strategies used to cope with food/nutritional needs of ART clients

3.4.1 Individual and community strategies

Strategies used to cope with food and nutritional needs of ART clients differed by locality. Strategies included the following:

- ❑ Some PHA enroll in multiple support groups for PHA and AIDS in the locality, so as to tap the different food and nutrition benefits extended to PHA by the various groups. For example in Korogocho slums, many PHA including ART clients were found to benefit from food support from both KENWA and the Medical Mission Sisters health program.
- ❑ Members of AIDS support groups help each other. For instance, they help feed those who are too ill and share food with those who have nothing to eat. It is noteworthy that participants in most groups asserted that the support group is their ‘real family’; to which they fall back when faced with threatening health problems including acute shortage of food.
- ❑ In low income urban areas PHA take food on credit from kiosks and food vendors. This is however only done by clients with a reasonably reliable source of income.
- ❑ Some AIDS support groups have set up savings funds for members. Part of the savings is used to purchase food or other basic needs when a member falls sick or when faced with an acute shortage of food.
- ❑ Those who have disclosed their status to family can negotiate for more food, for different foods, or for snacks.

- ❑ Use of local nutritional products popularized and sold by networks of PHA such as “Power porridge, which is believed to be “a complete food” in itself.
- ❑ When there is limited availability of food in the home, a majority of ART clients in the low income urban areas eat porridge. A key challenge facing women was the conflict between safeguarding their health by eating more and giving priority to their children when faced with food shortages.
- ❑ Some ART clients who were regaining their strength operate small non- food businesses such as selling second hand clothes and shoes, or selling utensils. If they are stigmatized or discriminated against because of their HIV status, they locate their businesses some distance away from their immediate residence.
- ❑ When they are able to save some money, ART clients reported occasionally buying choice foods in a food kiosk.
- ❑ A limited number of very sick PHA who had no one to care for them received porridge and one meal every day from the KENWA drop-in centers.

3.4.2 Food assistance strategies to support ART clients

This section provides the perceptions of ART clients as well as service providers regarding 1) Whether food assistance for ART clients is necessary and what purpose such assistance would serve 2) Who should be targeted for such support, 3) What form of food support is appropriate for ART clients?

Is food assistance for ART clients necessary?

Generally, all those interviewed felt food assistance was an essential component of ART in Kenya. There is widespread poverty (65%) and food insecurity. However, program managers felt that food assistance should always be targeted at vulnerable ART clients. Most programs came to this realization only after interacting with their clients for some time, as shown by the case-study from Moi Teaching and Referral Hospital in Eldoret (Case-study 2).

Based on their program experience, most of those interviewed said there should be careful management of the food assistance component to avoid development of dependency among recipients. Three types of ART clients were identified who should be targeted for food assistance:

1. Clients who need clinical nutritional care before being started on ART. A Program Coordinator with Family Health International (FHI) underscored the need for setting up criteria for identifying the high-risk PHA who should be put on nutritional therapy to correct overt nutritional disorders before being put on ART. Trained frontline service providers would screen to find PHA who are “in the red” nutritionally and these individuals would receive therapeutic nutritional support aimed at getting them up to a pre-defined nutritional status.

While this is the view of the program manager interviewed, there currently is no evidence that malnourished individuals should not start ART until they reach a certain threshold nutritional status.

2. Malnourished ART clients. Program managers from AMREF and the MSF-Belgium program at Mbagathi Hospital, and by ART clients in discussion groups indicated that food assistance would be targeted at ART clients outside hospitals whose nutritional status is low in order to enable them to “come up and stabilize”. Respondents suggested using food assistance to improve the nutritional status of these ART clients. “*The food relief is particularly important for those starting on ARVs as that is the stage when majority are nutritionally low and not able to access quality food due to ill health or lack of resources*”. Gaining weight helps to shed the image of HIV/AIDS as a wasting and debilitating disease. Weight gain also boosts confidence, reduces stress and builds hope among ART clients.

A participant from KICOSHEP FGD said, “*I was very wasted, I was depressed, and everyone knew I was dying of AIDS. Then I joined the support group and I have gained weight. The weight is tangible evidence that I will live for long; it gives me confidence to continue with my life. I have hope*”.

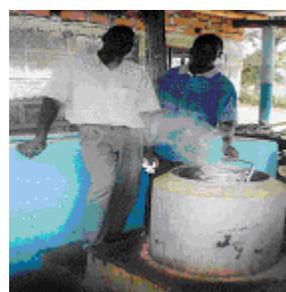
It was suggested that food assistance be provided for a period of 3-6 months and that eligibility for this intervention depend on clients’ health and nutritional situation.

CASE STUDY 2: Food Assistance Initiative for ART Clients in a Rural Setting: The AMPATH - HHI Pilot Project, Mosoriot, Eldoret.

The Program Director at AMPATH in MTRH explained that the food assistance component of the HHI program was born out of his experience with a woman named Helena whom he met in a village near Mosoriot in 2002. Helena's husband had died, she had 5 children and was very sick and lay in her house dying. She was one of 70 patients in the ART pilot project at Mosoriot. She was enrolled in the program and put on ARV'S in Nov 2001. However, it was noted that even after 4 months, she had not made any notable improvement. At that point, AMPATH did not have a food assistance component in the program. "I personally started purchasing food for Helena. After about 6 months, Helena was 65 kg, up from 35kg and when she walked into my office, I didn't recognize her". The AMPATH director says that he then woke up to the realization that 'ARVs have no calories' – and the idea of providing food to ART clients within the program was born.

Since this experience, the program has learned from interactions with ART clients that "once poor people start taking ARVs, somewhere between 3-6 weeks, they will whisper in your ear, 'I am hungry, please give me something.' If you give them ARVs and food support, they rapidly get better and stronger and 6-12 months later, they will again whisper in your ear, 'please help me get productive'". Through these lessons, the program has learned that the ART strategy should involve concurrently "knocking the virus" while doing something about the stomach and the spirit. "Scaling up ART without a food strategy won't get far as the majority of Kenyans are grossly food-insecure," says the Program Director.

Food security is an integral component of comprehensive HIV care at AMPATH. In order to feed patients and their families, AMPATH established a 10-acre farm in 2002 dedicated to feeding its patients in greatest need. A local school, Moi Sigoi high school, donated the land. As of September 2004, the program, known as HAART and Harvest Initiative (HHI), was capable of producing large volumes of milk, yogurt, eggs, meat and fruit, and was feeding 400 families. The HAART and Harvest Initiative targets their food to impoverished patients and their families. Food is provided to all clients in need, not just those on HAART. The program hopes to demonstrate the role of nutritional support in the care of HIV-infected families while training participating families in methods to increase their food security as clients regain health.



3. ART clients with poor access to food. The need was identified for food assistance for ART clients in order to:
 - ❑ Facilitate improved access to food or improve the quality of the diet for those who can't access sufficient quantity of quality food due poor income.
 - ❑ Stabilize and smooth access to food, as the program helps ART clients to return to livelihoods or food production that can provide for their needs. This is the model that MTRH uses: to also build the capacity of the ART clients to return to productive life.
 - ❑ Promote adherence to ARVs, and TB treatment for those on it.

A program manager pointed out that, *“ We have experienced better adherence when we have a food component for the very poor on ART. There has also been an upsurge in numbers of poor PHA who are willing to “come out in the open” and say they are HIV positive so as to receive food support”* .

ART clients were eager to return to their livelihoods. Some pointed out that once ARVs are initiated and they eat well, their conditions stabilize and they become productive again. They indicated that ART clients from poor backgrounds should be assisted to return to their sources of livelihood so as meet both food and other immediate needs. Participants in a KICOSHEP group discussion observed that some among them had resigned to their fate or given up the income generating activities they were engaged in when they became too sick. However, with access to ARVs, they had regained their health and many were strong but were facing challenges in re-initiating meaningful IGA to meet their food and other basic needs.

A program manager with Nazareth Hospital summarized the need for food assistance as follows: *“ Food relief for eligible ART clients should be for a limited period and accompanied by an intensive component of nutrition education. The provision of ARVs and management of OIs are aimed at enabling PHA to be healthy and productive (not in bed) to a level where if they are empowered with knowledge of food and nutritional issues, they should take the necessary actions to acquire food. Provision of food support to ART clients should only be done to support clients to return to normal work, not as hand-outs”* .

CASE STUDY 3

Hellen, 41 years and divorced, learnt of her positive HIV status in 2002. She went through a difficult time during which she used all her savings to treat various opportunistic infections that were afflicting her, including oral thrush and STIs. She had great difficulty eating *githeri* (a mixture of maize, vegetables, and beans)—the only food her poor mother could afford—due to oral thrush and stomach aches. Her weight dropped from 65kg to 38kg. KENWA assisted Hellen to get treatment for the various OI in 2004 and in April 2004 she was started on ARVs. She experienced various side-effects like vomiting and diarrhea during the first 3 weeks of taking ART. When she stabilized she had to contend with a very high appetite, *“I eat well here at the center but I still feel hungry almost all the time. I cope by taking snacks of porridge or left-over food like githeri.”* Over a period of 4 months on ART and food support from KENWA, Hellen's weight has risen from 38kg to 49kg, and she is starting her own small business to help her earn a living.

CASE STUDY 4: HAART Harvest Initiative – Mosoriot, Eldoret

Hawa is aged 31 years. Her only child passed away soon after birth in 2001. Hawa has 12 years of education and lives with her parents on a farm in Mosoriot. She began feeling unwell (chronically

fatigued) in 2002 and following frequent illnesses was taken by her elder brother for a check up at MTRH early 2003 and diagnosed with T.B. She was put on medication for TB but only learnt of her HIV positive status later from her father at a family meeting in 2003. Her family was very supportive. They prayed and assured her they would connect her with the HHI project, a program recognized as a community program supporting PHA. However, Hawa got depressed and lost appetite after learning of her HIV status. She even considered suicide. While on TB medication, she vomited a lot, experienced nausea and did not eat well. She lost weight.

Hawa was subsequently put on ARV medication after counseling at Mosoriot health center in June 2003. She was only 50kg with a CD4 count of 49 when she started on ARVs. Being on both T.B treatment and ART concurrently in her words was 'very tough' as she had to swallow many pills in a day. Sometimes she had a bloated stomach and many days she couldn't eat well. After completing the T.B treatment, she eventually stabilized and her appetite increased. However, in her home, they had the usual monotonous food of ugali (maize meal) and beans; food was scarce and she had to make do with whatever food was available. Her health did not change much. In March 2004, she was recruited for the HHI supplementary food assistance for a weekly supply of milk, eggs and vegetables, sufficient for the whole family. At the time of the survey Hawa weighed 89 kg. Hawa believes that if one is on ARV's and also eating well "HIV can't get you down" and one can live a productive life.

Targeting criteria for food support – ART clients

There is agreement that ART clients should be screened to ensure that food assistance is targeted only at the nutritionally vulnerable ART clients. The study sought to establish general criteria that can be utilized in identifying or screening clients for eligibility for food assistance using both anthropometric and social economic indicators. Table 3 gives criteria suggested by ART clients and service providers for targeting clients for receipt of food assistance.

Table 3: Suggested criteria for targeting food assistance to ART clients

Criteria suggested by service providers and programmers	Criteria suggested by PHA/ART clients
<ul style="list-style-type: none"> ART clients who are also on T.B medication 	<ul style="list-style-type: none"> <i>“ Poor clients who are just starting ART. The first three months are the most difficult” .</i>
<ul style="list-style-type: none"> ART clients with many dependents and with low or no income 	<ul style="list-style-type: none"> Those who are members of the support group – as an incentive
<ul style="list-style-type: none"> Single parent households where the client has no source of income and is not supported by relatives (the abandoned). Households of PHA with orphaned children who have minimal support from relatives. 	<ul style="list-style-type: none"> Very sick ART clients. <i>“ Especially in hospitals, we should have “special” food for patients with AIDS” .</i>
<ul style="list-style-type: none"> Clients who are sickly and with poor nutritional status 	<ul style="list-style-type: none"> <i>“ Some ART clients stay with extended families when they are very sick. Many times the families they are dependent on are also poor and it is good to just carry something. They are seen to be contributing something and get good care that way” .</i>
<ul style="list-style-type: none"> ART clients who are unemployed and have no source of income and from households with no sources of income 	<ul style="list-style-type: none"> ART clients from poor areas and who do not have sources of livelihood
<ul style="list-style-type: none"> Use of BMI (different cut-off points are used) + 24 hr dietary recall 	<ul style="list-style-type: none"> Those who are emaciated and severely wasted.

Most of the criteria suggested by service providers are those that programs are using to target food assistance.

Participants in a WOFAK support group discussion at Kayole identified two categories of vulnerable groups common in urban slum settings in Kenya who should be targeted with food assistance. The lowest and most needy group consists of PHA and ART clients who have no source of income (no job/ businesses) - in particular women who are widowed or separated. This category was reported as the most vulnerable because they not only have no source of income to purchase food, but shop owners refuse to lend them food on credit for fear they may not make payments since they do not have a regular source of income.

A key informant at the KENWA drop in center in Thika explained that shop owners quietly believe that such persons are likely to die any time leaving unpaid debts, and therefore decline giving them anything on credit. The second category of vulnerable people identified for food assistance consists of people who would normally be able to access basic staple food but are too poor to afford other types of food, such as fruits and protein-rich foods. It was suggested that support to this group aim at complementing available foods.

A key lesson learned by programs providing food support to ART clients was the importance of setting a criterion of food allocation and communicating to beneficiaries receiving food relief the criteria and duration for which they would receive food support to avoid creation of dependency.

Example of anthropometric indicators used for targeting food assistance

Nutritional status criteria currently used in screening and targeting food support differed among programs assessed. For instance:

AMREF Kibera HIV project defines as ART clients and those on T.B medication to be at risk if they have BMI of < 18. These are provided with food support until they attain a BMI of 22. In addition to BMI, 24 hour dietary recall is done, and social workers interview and conduct household visits to evaluate eligibility of clients using other socio-economic markers to gauge whether the client has access to other sources of support. Only those who are considered at risk using anthropometric and social indicators are enrolled for food support.

At KNH, BMI of < 16 is used as cut off point.

3.4.3 Nutrition information communication strategies

In several interviews and focus group discussions, education and counseling were seen as important components of nutritional and food support for ART clients. However, few clients specifically described how they had benefited from nutrition education.

Some institutions like KNH conduct demonstrations of how to prepare different nutritious diets for PHA. AMREF and MSF/Belgium counseled their clients on nutrition and the kind of diets they could eat to remain healthy. However, most programs provided generic nutrition information about balanced diets and rarely addressed “evidence based” nutrition-HIV/AIDS messages.

Gaps and challenges to nutritional counseling of ART clients

As noted earlier, conflicting nutrition information and recommendations for PHA and ART clients were observed during this assessment. Program managers attributed this in part to the absence of nutritional guidelines for service providers involved in care of PHA. Nutritional counseling for ART clients in several health facilities and programs assessed was conducted by health providers who had not been trained on nutrition issues in HIV/AIDS. One program manager noted with concern that different individuals approach nutritional counseling differently based on training and exposure. This is further compounded by the absence of guidelines on nutritional care for PHA. Table 4 lists challenges that different types of service provider face in providing nutritional counseling to ART clients.

Table 4: Challenges facing different cadre of service providers in providing nutritional counseling to ART clients

Service Providers	Needs/Challenges
Clinicians (Medical and clinical officers)	<ul style="list-style-type: none"> <input type="checkbox"/> Lack of guidelines for identification of PHA and ART clients nutritionally at high risk <input type="checkbox"/> No guidelines on nutritional therapy appropriate for rehabilitative care of severely malnourished ART clients <input type="checkbox"/> Limited reference materials on food and nutrition issues of PHA & ART clients <input type="checkbox"/> Inadequate capacity (nutritionists) to provide specialized nutritional counseling to ART clients
Nurse counselors	<ul style="list-style-type: none"> <input type="checkbox"/> Lack of supportive tools for counseling <input type="checkbox"/> Inadequate grasp of issues of nutrition for ART clients <input type="checkbox"/> Heavy workload
Nutritionists	<ul style="list-style-type: none"> <input type="checkbox"/> No training on Nutrition and HIV <input type="checkbox"/> Lack of appropriate tools to support counseling <input type="checkbox"/> Limited knowledge on content & role of various nutritional supplements and food therapies promoted <input type="checkbox"/> Lack of supplies for conducting food preparation demonstrations
Community health workers	<ul style="list-style-type: none"> <input type="checkbox"/> Inadequate guidelines on nutritional management of specific conditions of PHA <input type="checkbox"/> No nutritional component in home based care kit <input type="checkbox"/> Inadequate food assistance for clients in home based care programs <input type="checkbox"/> Minimal training on nutritional components

For food and nutrition support to be integrated effectively into the comprehensive care of PHA and in particular ART clients, well-trained dietitians/health providers with the requisite knowledge on nutrition and HIV/AIDS are necessary.

In addition to training, service providers indicated the need for guidance on:

- 2 – 3 nutritional supplements that are appropriate for therapeutic use with severely malnourished ART clients.
- Use and safety of multi-cereal/legume flour mixes
- Inventory of natural food and herbal therapies being promoted – their role in PHA nutrition and appropriateness for ART clients. Health workers require guidelines on appropriate supplements and herbal therapies from the MOH
- An understanding of the nutritional aspects of HIV/AIDS and ARVs
- Types of ARVs available in the market, expected side effects, drug-food interactions, and nutritional management of these effects and interactions.
- Nutritional requirements of PHA and local food sources to meet these requirements.

The questions that are commonly raised by ART clients during personal and group therapy sessions provide useful information that may guide development of training packages for service providers.

Materials used for nutritional counseling of ART clients

Overall, there was a notable scarcity of materials or tools for use in provision of nutrition counseling on food and nutrition for PHA. Most institutions did not have any materials and service providers used their own initiative to source and acquire materials from diverse sources. The following are some of the materials that were in use at the various institutions visited.

- ❑ WOFAK has produced various types of materials: 2 booklets: “*Nutrition, your cure to everyday ailments – A nutritional guide by Women Fighting AIDS in Kenya*”, and “*Food for people living with HIV/AIDS*” produced by the Network of African People living with HIV/AIDS (NAP) in 1996; and a brochure “*Golden rules of eating for health*”. Occasionally the WOFAK newsletter provides information and discusses nutrition issues.
- ❑ MSF Belgium in conjunction with GTZ have produced a pamphlet – “*Nutrition and HIV/AIDS. Eat well, feel well!*” based on the FAO/WHO manual – Living well with HIV/AIDS.
- ❑ Chapter on nutrition and HIV/AIDS in the Kenyatta national hospital manual – “*Nutrition management guidelines. A manual by Kenyatta National Hospital nutrition and dietetics department*” (2002). They used the FANTA and FAO/WHO nutrition and HIV/AIDS guide for their production.
- ❑ “*Living positively*” A Nutrition guide for PHA, Malou Bijsma Mtare Hospital, Zimbabwe, was the main reference material used for nutrition counseling and education at Nazareth Hospital.
- ❑ Posters on “balanced diet for HIV infected persons” by Pathfinder International – KENWA –Kiandutu slum area Thika
- ❑ Five (5) food groups pictorial chart- Kenyatta National Hospital.
- ❑ Three (3) food group outline- English and Swahili- Nazareth Hospital



Program managers and service providers interviewed pointed out that the content of materials developed should focus on nutritional messages appropriate to specific target groups as follows:

- ❑ New clients on ART
- ❑ Follow-up clients to reinforce messages
- ❑ Care-givers of ART clients
- ❑ Health care providers
- ❑ PHA and ART clients with specific conditions such as reduced or increased appetite, vomiting, and nausea.

Service providers and managers were asked about the types of tools that would enhance delivery of the food and nutrition component within ART programs. These tools are described in section 4.2. Most of the tools suggested are audio visual and print materials. It was suggested they be used for 1) display in waiting areas and meeting rooms for group therapy meetings, 2) distribution to ART clients, and 3) service providers in counseling situations.

4. CAPACITY BUILDING NEEDS FOR NUTRITION AND ART

ART services in Kenya are largely perceived as purely clinical interventions: the focus at inception has been on increasing access to the drugs. Other aspects such as the food, nutrition, and psychosocial needs of ART clients are perceived as secondary issues, and they are not adequately addressed. In particular, nutritional care is mostly limited to awareness creation through nutrition education and some counseling at individual or support group level. Few programs have comprehensive counseling that addresses the nutritional implications of ART, and few programs have a food assistance component for ART clients. In part, this is due to the lack of guidelines to standardize actions and provide guidance, and to the lack of training of service providers.

All programs offering care to PHA on ART should have a trained service provider — nutritionist, counselor, or health worker — who provides, at a minimum, counseling on nutrition and HIV. To address the constraint of limited human capacity able to provide nutritional care and support, training packages and materials are needed that are designed for the key groups of service providers including clinicians (medical/clinical officers/nurses/pharmacists), nutritionists and home based care providers.

The findings of this assessment provide information address two key questions: 1) *What should the nutrition training package for service providers look like?* and 2) *What types of materials and tools are needed to support service providers?*

4.1 Content of nutrition training package for supporting ART clients

Based on the assessment findings, the training package should focus on five areas:

1. The essential actions that ART clients need to take to attain good nutrition. The interactions between ARVs and food/nutrition (especially foods used locally), managing these interactions, the need to eat well (and what eating well means practically) when on ARV and other OI medications (especially TB drugs).

Respondents felt the following specific topics are needed in training of service providers working with ART clients:

- Information on nutritional management of different conditions such as oral thrush, vomiting, weight loss and diarrhea.
 - Interactions between food and different drugs taken by ART clients, including ART and medication used to treat opportunistic infections.
 - Nutritional support for PHA/ART clients who have other conditions like diabetes, renal failure, TB, high cholesterol.
 - Role and use of the various food supplements and food therapies popularly promoted as beneficial to PHA, e.g. garlic, ginger, fermented cabbage and carrot juice
 - Nutrition and the immune system
2. The types of food products being promoted/ marketed as suitable for PHA and ART clients, the nutritional content of the products, and the suitability and use of the different products in the context of HIV/AIDS. For example, the nutritional content of GNLD products, the nutritional content of “Power Porridge”, i.e. the level of protein content and its implications for health of PHA/ART clients.

3. How to conduct demonstrations of preparation of locally available foods that may be helpful for PHA/ART clients. For clients who have newly begun ART, health workers should be able to propose, a) foods that “*hold the stomach*” and are affordable or available locally, and explain how they can be prepared, stored, and consumed (e.g. frequency, the time of the day, etc); b) nutritious snacks that are locally available and affordable.
4. Assessment of the nutritional status of PHA/ART clients: a) measuring BMI (taking weights and heights accurately and computing BMI); interpreting of the values and knowing when to take action and what actions to take; b) assessment of dietary intake of PHA/ART clients; c) biochemical tests—including collection of samples for and interpretation of tests like haemoglobin, cholesterol levels, resting sugar, etc
5. Screening of ART clients to determine which are in greatest needs of food assistance. Referrals or prescription of food if available.

4.2 Materials/tools needed to support nutritional care and support

It is evident that there are gaps in the materials available on nutrition and HIV/AIDS in Kenya. The following proposed materials are based on the findings of the assessment and suggestions by service providers and other respondents.

4.2.1 Materials for service providers

1. Training materials for use in integrating nutrition components into the training of ART service providers. Such materials can consist of a combination of information for trainers, hand-outs for trainees, and audio-visual materials. The other materials listed below can also assist with training.
2. Because inclusion of nutrition information in ART training may be limited by time and resource constraints, resources such as self learning guides should be developed and provided to those interested in learning more about nutrition. Such resources could be in a CD-ROM or as stand-alone manuals.
3. A booklet with illustrative responses to questions “commonly asked” by PHA/ART clients in Kenya. Examples of questions collected during the assessment are given in the box below.
4. Job aids designed for counselors to provide quality services to ART clients. These could be adapted from the job aids already developed for Uganda. A wall chart for health service providers to use at work-site could complement the job aids.
5. Guides on how to conduct food demonstrations for PHA/ART clients. Guides should include instructions for the demonstration process and the kinds of foods that are appropriate.
6. A Kiswahili video to use at the waiting bay focusing on essential nutrition actions for ART clients and how to use locally available foods to meet nutritional needs.

4.2.2 Materials for PHA and ART clients

There is a need to work with WOFAK and/or NAP to review and update the booklet “*Food for people living with HIV/AIDS*”, produced in 1996, to include current knowledge and understanding on food and nutrition for PHA/ART clients.

More of the posters produced by Pathfinder should be produced and distributed. Where possible, additional posters that address specific needs of ART clients should be produced.

Questions frequently asked by PHA and ART clients

- What are the appropriate proportions of the cereal/legume flour mix for power porridge to enable it to last longer?
- What foods are appropriate for PLWHA/C-ART; what should be eaten and what should be avoided? “We hear PLWHA should eat well, what should I eat?” is a question commonly asked by people soon after learning of their HIV status.
- What types of food have the potential to boost immunity?
- How can I control or prevent excessive weight gain?
- What are appropriate foods for PLWHA suffering from specific conditions, e.g. nausea, vomiting, poor appetite and weight loss?
- Are there benefits from the various nutritional supplements being promoted e.g. Swissgarde, Moducare, GNLD? How should they be used?
- How can foods such as vegetables be prepared so as to optimize nutrient value, especially for those in HIV stages 3-4 who have problems with digestion?

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

1. ART programs in Kenya are perceived and largely implemented as clinical interventions with the primary focus on drugs. Other aspects of care, such as the food and nutritional needs of ART clients, are perceived as secondary issues.
2. Food and nutrition components are not adequately addressed within ART programs, and are mostly limited to awareness creation through general nutrition education and counseling at individual or support group level. Few programs have a food assistance component for ART clients.
3. Service providers (clinicians, counsellors and nutritionists) perceive food and nutrition support for ART clients from food insecure households as vital to enhancing adherence to, and effectiveness of, ART.
4. PHA and ART clients from households that lack sustainable access to sufficient food regard food assistance as critical for the uptake of ART. ARVs are perceived to be strong and toxic drugs that cannot be taken on an empty stomach.
5. Messages on nutritional care for PHA given by service providers are not standardized and in some cases are inconsistent between programs. This is due in large part to the lack of guidelines for service providers and program managers on nutritional care of PHA.
6. Most programs and facilities have no nutritionists. Nutritional counseling is routinely undertaken by other health care providers such as nurses and social workers who have minimal training on the role of nutrition in the care of PHA. Service providers, including nutritionists, at the 2 largest national referral hospitals have not been trained in nutritional management of PHA.
7. There is a scarcity of materials and tools to support nutritional counseling of PHA in most health facilities and programs involved in caring for PHA. This is despite the fact that nutritional counseling is the main nutrition intervention offered to ART clients.
8. The nutritional counseling offered to ART clients contains key gaps in knowledge and information about interactions between food and ARVs and other medications.
9. Different institutions are currently using different approaches and cut-off points to identify nutritionally vulnerable ART clients.

5.2 Recommendations

1. It is important to speedily complete production of national guidelines on nutritional care and support for PHA to facilitate harmonization and standardization of food and nutrition related messages to ART clients.
2. Nutrition counseling should be a core intervention in ART programs. It should be integrated at all stages of ART implementation, such as during adherence counseling, regular follow-up sessions, and meetings of PHA support groups. Health facilities offering ART should strengthen their capacity to provide nutritional care and support to ART clients. Each facility should, at the least, have: a) a staff person trained in nutrition and HIV/AIDS, including the interactions between food/nutrition and ARVs; and b) the necessary equipment to monitor/assess the nutritional status of clients.
3. Core information about interactions between ARVs and food and nutrition should be integrated into ART training, as well as into continuing education forums. In addition to building capacity, this will also help facilitate consistency of the nutrition messages offered by service providers.
4. Because inclusion of nutrition information in ART training may be limited by time and resource constraints, resources for self learning should be developed and provided to those interested in learning more about nutrition. Such resources could be in a CD-ROM or as stand-alone manuals.
5. Strengthen the nutrition component in the ART training package for health care providers and in the home based care manual to include: a) localized key messages that address clients' food and nutrition needs, especially for poor clients; and b) skills in screening to identify nutritionally vulnerable ART clients who require nutritional counseling and/or food assistance.
6. Materials to support counseling and awareness generation efforts need to be developed. The materials and tools should contain specific information and key messages on nutritional care for ART clients. Such materials could be job aids cards, booklets, brochures and posters will need to be developed and disseminated to support nutritional counseling of ART clients. The materials RCQHC, FANTA, and LINKAGES developed for Uganda can be used as a starting point.
7. Since resource and logistical constraints prevent all service providers from being trained immediately, trainers of trainers will need to be identified and trained to provide service providers with training in the nutrition component in the ART and home-based training strategy. Nutritionists from the two national referral hospitals may be best suited as trainers of trainers.
8. Health workers within ART care settings require specific guidelines for screening nutritionally vulnerable ART clients to identify clients requiring food assistance or other support.
9. NASCOP needs to address key programmatic challenges to provision of food assistance to clients on ART. The challenges include identification of feasible and appropriate food baskets, resource mobilization, and mechanisms for providing food assistance to PHA and ensuring that clients themselves consume the food. A brainstorming meeting of key stakeholders from programs providing food assistance would be a useful next step.

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ANNEX 1: FOCUS GROUP DISCUSSIONS AND IN-DEPTH INTERVIEWS CONDUCTED

Institution	FGD/Case Studies	In-depth Interviews with Key Informants
Health Facilities		
Nazareth Hospital	FGD - Support group 1 case study	Clinical officer Social worker/counselor Project manager Pharmaceutical technologist
Thika District Hospital		ARV program coordinator District Nutritionist
Coptic Hospital		Consultant dietician Pharmacist Nurse counselors Pediatrician
Moi Teaching and Referral Hospital	2 case studies and photos	ARV program coordinator AMPATH director Head nurse, ARV clinic Nutritionist ARV clinic, adults - Nutritionist ARV clinic Pharmacology technologists Farm manager, H.H.I AMPATH HHI nutritionist Assistant program manager, F.P.I
5. Kenyatta National Hospital – Comprehensive Care Clinic		Medical officer Chief nutritionist Nutritionist in charge of nutrition clinic
6. Medical Mission Sisters (Korogocho health center)	FGD CHW's (5) Case studies	Program coordinator Nurse counselor Hospital coordinator Food support – in-charge
Coast PGH	KPI	MO In-charge – Comprehensive care clinic
NGOs and PHA Networks		
AMREF	FGD – Social support group	Program coordinator Project nurse Nutritionist Nurse counselor
MSF Belgium Mbagathi hospital		Medical officer Nurse counselor Nutritionist Hospital coordinator Hospital coordinator
KICOCHEP	- Support group - Field program staff	Program director Program officer Project nurse Social worker
WOFAK	Support group – Kayole	Counselor Pharmacy manager

		Social worker / counselor Program officer
FHI		Program coordinator
KENWA	FGD – Mathare Case studies – 2	Program manager Drop in center in-charge – Thika - Kiandutu

ANNEX 2: DISCUSSION TOPICS FOR FOCUS GROUP DISCUSSIONS AND INTERVIEWS

A. PHA and Clients on ART

1. Knowledge of nutrition/food, in general, and related to HIV/AIDS, ART (e.g. need for increased energy, monitoring weight, etc).
2. The information clients need to enable them to manage nutritional implications of ART. Probe for current sources of information related to nutrition in general, and during illness, and any gaps.
3. Perceptions on how nutritional status and eating patterns have changed since they learned they have HIV /during the illness.
4. Actions taken to protect their health/nutrition before and after being on ART and challenges faced. Probe for changes in health, nutritional status and dietary intake experienced and factors that could have influenced these.
5. Experience with the ART and other medications (side-effects, food-drug scheduling, etc) and their effects on food and nutrition needs.
6. Coping strategies clients are using to deal with any additional food or nutrition needs caused by the disease or its treatment and challenges faced.
7. Common constraints faced in managing food and nutrition implications of ART (e.g. income/food production, information, perceptions, stigma);
8. Kinds of support clients would want (Type, sources, how/when, why) to maintain good nutrition and to deal with the constraints. Characteristics of a good quality program.

Food for PHA:

1. Who needs food? (Criteria to use to allocate food)
2. For what purpose? – Access/Supplementation/adherence to ART
3. Types of food

B. Program managers and health providers - Doctors, Pharmacists, nutritionists, nurses, etc.

1. Knowledge and attitudes of health care providers towards health/nutrition and diet for PHA on (and those not on) ART.
2. What are common behavior change mechanisms related to food and nutrition among PHA? Probe for what has been shown to work and what does not.

3. Food and nutrition challenges faced when providing ART or in implementing home based care programs. Is compliance related to food/nutrition?
4. Recurrent questions and issues on nutrition raised by persons on ART, and key food/nutrition messages given to people on antiretroviral therapy.
5. The kind of information service providers need to effectively provide the nutrition and food component of ART.
6. Gaps in current information/materials used in training counselors of PHA and specifically those on ART. Did training change behavior and attitude in Nutrition/ HIV?
7. Tools necessary to communicate nutrition messages or training needed by service providers to enable improved management of nutritional implications of ART.
8. Food/nutrition components being used for PHA and reasons. Probe for perceived key food and nutrition related actions needed by PHA and constraints in following through with the actions.
9. Existing opportunities for providing nutritional care and support through existing programs. How should training for service providers be carried out and what materials should be used?

ANNEX 3: TYPES OF FOOD ASSISTANCE IDENTIFIED FOR ART CLIENTS

Perceptions about food assistance that would be appropriate for ART clients were sought from PHA, ART clients, direct service providers and program managers in institutions visited.

Clinicians were generally of the view that high risk PHA (those who are severely malnourished) including ART clients should be routinely screened and provided with nutritional therapy to correct overt nutritional disorders present. Technical guidance by the Ministry of Health on two to three nutritional supplements that can be used for nutritional therapy for PHA who are severely malnourished would be very useful. These should be instant supplements that are high in energy, protein and other micronutrients given to complement whatever other foods the client can afford. The supplements should be provided on a short-term basis until a client attains a specified BMI level. Once the acute deficiencies have been tackled, issues of access to food issues should then be addressed.

Provision of a special nutritional formulation preferably in small sachets that can be added to uji and other foods to complement vital macro and micronutrients is preferable for ART clients in urban low income areas. AMREF shared their experience where provision of a food basket consisting of beans and rice provided to needy PHA in Kibera ended up being 'food for the family' with no demonstrated impact on the target individual.

For PHA but with no symptoms, service providers and program managers felt that while advice on appropriate diet is helpful, it is also important to prescribe a nutritional supplement that can be taken periodically to *maintain* good nutritional status.

Asked for their opinion on appropriate types of food support, ART clients preferred food support in the form of actual foodstuffs. The most preferred mix of foods mentioned included maize meal flour, rice, cooking oil, legumes. In the urban low income areas, the majority of participants also preferred support with enriched flour for power porridge, which retails at K.sh 100 – 120 and which the majority cannot afford regularly. Some FGD participants at Nazareth hospital also preferred multi-vitamin/mineral supplements.

Regarding feasibility of extending food support to eligible ART clients, program managers underscored that this can be done by utilizing existing home based care program networks. It was however also pointed out that food assistance is an expensive component and that it would be necessary to mobilize resources for this activity. It was suggested that one strategy in Kenya should be to get the National AIDS Control Council (NACC) to put this issue on its agenda as it is involved in resource mobilization for HIV related interventions. A supportive policy framework is also necessary for effective implementation of interventions on food and nutrition support for PHA.