

## **SESSION 4 FOOD SECURITY COMPONENTS IN HIV/AIDS NUTRITIONAL CARE AND SUPPORT**

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### **Purpose**

The purpose of this session is to help students understand how food insecurity constrains nutritional care and support and give them knowledge about approaches to optimize nutritional care and support in the context of food insecurity.

### **Learning objectives**

By the end of the session, students will be able to:

- Explain the three dimensions of food security
- Understand and describe the relationship between HIV/AIDS and food insecurity and the impacts each has on the other
- Identify the effects of food insecurity on nutritional care and support capacity
- Describe interventions and tools that can be used to address and account for food security constraints on nutritional care and support

### **Prerequisite knowledge**

- Basic knowledge of HIV/AIDS in Africa (e.g., Session 1)
- Basic counseling skills

**Estimated time: 120 minutes excluding time for field work**

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## Outline

Content	Methodology	Timing
<ol style="list-style-type: none"> <li>1. Rationale</li> <li>2. Food security components and nutritional care and support               <ul style="list-style-type: none"> <li>• Availability, access, and utilization.</li> <li>• Nutritional care and support and utilization</li> <li>• Access and availability constraints to nutritional care and support.</li> <li>• Factors affecting food security</li> </ul> </li> <li>3. HIV/AIDS and food security               <ul style="list-style-type: none"> <li>• Scope of the problem</li> <li>• Relationship between HIV/AIDS and food insecurity                   <ul style="list-style-type: none"> <li>○ Special aspects of HIV/AIDS-food security dynamic</li> <li>○ How HIV/AIDS affects food availability and access</li> <li>○ How food access and availability affect HIV/AIDS</li> <li>○ Interventions to address HIV/AIDS and food security</li> </ul> </li> </ul> </li> </ol>	<p>Facilitate interactive lecture using <b>PowerPoint 4</b> presentation</p> <p>Facilitate questions and answers (to master concepts)</p> <p>At the appropriate moment distribute <b>Handout 4</b></p>	
<ol style="list-style-type: none"> <li>4. Food security constraints to nutritional care and support. Constraints relate to:               <ul style="list-style-type: none"> <li>• Infant feeding and PMTCT</li> <li>• Pregnant and lactating women</li> <li>• Management of drug and food interactions</li> <li>• Nutritional management of symptoms</li> </ul> </li> </ol>		

Content	Methodology	Timing
<p>5. Implementing effective nutritional care and support in the face of food security constraints</p> <ul style="list-style-type: none"> <li>• Assessment <ul style="list-style-type: none"> <li>○ Understanding the sources of food insecurity</li> <li>○ Identifying key foods and nutrients for which access gaps exist</li> <li>○ Identifying capacities and options</li> </ul> </li> <li>• Selection of Options <ul style="list-style-type: none"> <li>○ Identifying alternate dietary practices and options that are feasible.</li> <li>○ Increasing food security <ul style="list-style-type: none"> <li>- Links/referrals to services</li> <li>- Adjusting expenditure allocations</li> <li>- Intra-household food allocations and practices</li> </ul> </li> <li>○ Involving people living with HIV/AIDS, caregivers, and household members</li> </ul> </li> <li>• Follow-up</li> </ul> <p>6. Conclusions</p>	<p>At the appropriate time, distribute <b>Handout 4</b></p> <p>Use <b>Exercise 4</b> to conduct some of the role plays/group work given available time</p> <p>Refer students to some of the suggested reading materials</p>	

### Required materials

1. LCD or overhead projector
2. Flipchart stand and paper, writing pens, or board

## Recommended preparation

- Be familiar with **Lecture Notes 4: HIV/AIDS, Household Food Security, and Nutritional Care and Support** and **Handouts 4.1 and 4.2**.
- Be prepared to divide participants into pairs for the role-plays and group work in **Exercise 4**. Use foods and situations appropriate for the country context.

## Materials provided

### PowerPoint Presentations

- **PowerPoint 4/overhead presentation: Food Security Components in HIV/AIDS Nutritional Care and Support**

### Handout

- **Handout 4: Steps for Addressing Food Security in the Nutritional Care and Support Counseling Process**

### Additional resources on CD

- HIV/AIDS Mitigation: Using What We Already Know
- A Review of Household and Community Responses to the HIV/AIDS Epidemic in Rural sub-Saharan Africa
- Effective Food and Nutrition Policy Responses to HIV/AIDS: What We Know and What We Need to Know

## Suggested reading materials

Barnett, T, and G Rugalema. 2001. HIV/AIDS: A critical health and development issue. In *The unfinished agenda: Perspectives on overcoming hunger, poverty, and environmental degradation*, session 7. Washington: International Food Policy Research Institute (IFPRI).

Bonnard, P. 2002. HIV/AIDS mitigation: Using what we already know. Washington: FANTA Project, Academy for Educational Development.

Consultative Group on International Agricultural Research (CGIAR). 2001. Proposal for a global initiative on HIV/AIDS, agriculture, and food security. Washington, DC.

De Waal, A. 2002. New variant famine in Southern Africa. Presentation for Southern Africa Development Community Vulnerability Assessment Committee meeting, October 17-18, Victoria Falls, Zimbabwe.

FANTA (Food and Nutrition Technical Assistance Project). 2001. HIV/AIDS: A guide for nutrition, care and support. Washington, DC FANTA Project, Academy for Educational Development.

----- 2000. Potential uses of food aid to support HIV/AIDS mitigation activities in sub-Saharan Africa. Washington, DC: FANTA Project, Academy for Educational Development.

Gillespie, S, L Haddad, and R Jackson. 2001. HIV/AIDS, food and nutrition security: Impacts and actions. Nutrition Policy Paper #20: Nutrition and HIV/AIDS. Geneva: UN Administrative Committee on Coordination Sub-committee on Nutrition (ACC/SCN).

Haddad, L, and S Gillespie. 2001. Effective food and nutrition policy responses to HIV/AIDS: What we know and what we need to know. FCND Discussion Paper No. 112. Washington: International Food Policy Research Institute (IFPRI).

Horizons Project. 2002. Microfinance and households coping with HIV/AIDS in Zimbabwe: An exploratory study. Washington, DC: Population Council, Inc.

Kadiyala, S, and S Gillespie. 2003. Rethinking food aid to fight AIDS. Washington, DC: International Food Policy Research Institute (IFPRI).

Mutangadura G, D Mukurazita, and H Jackson, eds. 1999. A review of household and community responses to the HIV/AIDS epidemic in rural sub-Saharan Africa. Geneva: UNAIDS.

PVO-USAID Steering Committee on Multisectoral Approaches to HIV/AIDS. 2002. Promising practices on multisectoral approaches to HIV/AIDS. Draft, October. Washington, DC.

Shah, M, N Osborne, T Mbilizi, and G Vili. 2002. Impact of HIV/AIDS on agricultural productivity and rural livelihoods in the central region of Malawi. Atlanta: CARE International.

UNAIDS. 2002. The impact of HIV/AIDS. Fact sheet. Geneva. Available at [www.unaids.org](http://www.unaids.org).

———. 2000. Socio-economic impact of HIV/AIDS in Africa. ADF 2000. Presented by Anita Alban and Lorna Guinness. Geneva: UNAIDS. Available at [www.unaids.org](http://www.unaids.org).

———.1999. A review of household and community responses to the HIV/AIDS epidemic in rural sub-Saharan Africa. Compiled by G Mutangadura, D Mukurazita, and H Jackson. Geneva.

USAID. 2002. USAID's expanded response to HIV/AIDS. Washington, DC.

# LECTURE NOTES 4: FOOD SECURITY COMPONENTS IN HIV/AIDS NUTRITIONAL CARE AND SUPPORT

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## Introduction

The food insecurity commonly faced by HIV/AIDS-affected households can make it difficult for people living with HIV/AIDS to practice appropriate nutritional care and support. Service providers who understand a household's specific food security situation, the constraints on care and support options caused by insufficient food availability and access, and the mechanisms to address these constraints can offer feasible and more effective nutritional care and support interventions.

## Purpose (slides 2, 3)

The purpose of this session is to give students an introduction to the constraints posed by food insecurity on nutritional care and support for people living with HIV/AIDS and approaches to implementing this care and support in food-insecure contexts. The session:

- Describes the dimensions of food security
- Outlines the relationship between HIV/AIDS and food insecurity
- Describes the effects of food insecurity on nutritional care and support to people living with HIV/AIDS
- Discusses ways to implement nutritional care and support in the face of food insecurity

## Food security components and nutritional care and support (slide 4)

Nutritional care and support of people living with HIV/AIDS depends on the availability, accessibility, and utilization of food, which in turn are affected by external, internal, and household social, economic, and cultural factors.

### **Availability, access, and utilization (slides 5, 6)**

USAID (1992) defines food security as a situation in which “...all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life.” Achieving food security requires sufficient physical supplies of food, adequate household access to these food supplies, and appropriate use of food to meet people’s specific dietary needs. The USAID definition involves three distinct but interrelated aspects of food security: food availability, food access, and food utilization (slide 7).

Food **availability** is achieved when sufficient quantities of food are consistently available to all people in a country or region. Such food can be supplied through household production, other domestic output, commercial imports, or food assistance.

Food **access** is ensured when households and all people in them have adequate resources to obtain appropriate foods for a nutritious diet. Access depends on income available to the household, the distribution of income within the household, and the price of food.

Food **utilization** is the proper biological use of food, which requires potable water, adequate sanitation, a diet that provides sufficient energy and essential nutrients, and knowledge within the household of food storage and processing techniques, basic principles of nutrition and proper child care, and illness management (USAID 1999; Bonnard et al 2002).

Similar definitions of food security and conceptual frameworks have been developed by other agencies.<sup>1</sup> Information in this session is organized using the USAID definition.

## **Nutritional care and support and utilization**

Nutritional care and support for people living with HIV/AIDS is part of the utilization component of food security. It enables people living with HIV/AIDS to obtain the energy and nutrients to meet their nutritional needs, manage symptoms, prevent weight loss, maintain optimal nutritional status, and support immune function. This requires a combination of appropriate dietary behaviors, hygiene and symptom management, availability of and access to food, and knowledge about nutritional needs.

HIV, ensuing opportunistic infections, and medications can all increase the body's nutritional needs, inhibit nutrient absorption, or reduce food intake. This makes the utilization dimension of food security critical, as biological use of food is impaired by these HIV-related factors. Appropriate dietary and nutritional behaviors can help mitigate these problems, strengthen nutritional status, and manage symptoms (slide 8).

As described in other sessions of this module, nutritional care and support involves interventions such as dietary changes to ensure increased consumption of key nutrients required to address the virus or to complement medications; more frequent feeding to maintain consumption in the face of anorexia, nausea, or other side effects; and special food preparation to address symptoms (e.g., soft foods for thrush or mouth sores). For more information on nutritional management of symptoms, refer to Session 5.

### **Access and availability constraints to nutritional care and support (slides 9, 10)**

The capacity to implement effective nutritional care and support depends on food availability and access. Sufficient quantities of a variety of nutritious foods must be steadily available, and households and people living with HIV/AIDS must have the resources to access an adequate quantity and variety of such foods. Limited availability of and access to nutritious foods constrains the capacity of many HIV/AIDS-affected households to implement nutritional interventions to strengthen the health and nutritional status of infected people. Furthermore, nutritional care and support often requires substantial time commitment from household members and caregivers, and households face competing demands on time for food production and income-generating activities.

In this session “food security constraints” refers to limitations in food availability and access that impede proper nutritional care and support. Utilization is also a fundamental component of food security, but because food utilization is inherent in nutritional care and support (i.e., nutritional care and support itself addresses food utilization), the “external” food security constraints in this session refer only to food access and food availability. Certain aspects of food utilization, such as poor quality water supplies, can also externally constrain nutritional care and support.

Reduced labor availability of both HIV-infected people and caregivers in the household, sale of productive assets such as a goat or a dairy cow to pay for health care or basic necessities, and external non-HIV/AIDS-related factors such as weather or conflict can all decrease household and community food production. This reduced **availability** of food constrains the capacity for nutritional care and support by limiting the quantity and variety of food available for consumption.

Within households, HIV/AIDS often leads to loss of income, sale of assets, and depletion of savings and food reserves to pay for health care, compensate for lost labor, and maintain expenditure levels on basic needs. These responses can all diminish household **access** to food, and nutritional care and support depends on the capacity to access a variety of nutritious foods continuously.

Practitioners who provide nutritional care and support guidance and recommendations should recognize and identify the specific food security constraints that may keep a household or individual from accessing nutritional care and support. Based on this recognition, practitioners can work with clients and caregivers to identify dietary recommendations that are feasible within their constraints, as well as actions and services that can help mitigate the food insecurity.

### **Factors affecting food security (slide 11)**

Factors that negatively affect a household’s or individual’s food availability or food access can be divided into four categories:

- **Individual-level constraints** such as food habits, reduced capacity to eat because of infection symptoms, level of knowledge of the benefits of proper feeding, and psychosocial factors such as depression

- **Household-level constraints** such as lack of production and purchasing power, inequitable intra-household distribution, lack of knowledge about nutritional needs and dietary practices, food taboos, and changes in prioritization among household members as a result of disease
- **Constraints external to the household** such as seasonal variation in production, price fluctuations, social stigma, market availability, legal issues, and social customs
- **External shocks** such as droughts, floods, or conflict

### **HIV/AIDS and food security (slide 12)**

HIV/AIDS can cause and increase food insecurity, and food insecurity can increase vulnerability to HIV infection and the impact of HIV/AIDS. This section examines the reciprocal effects of HIV/AIDS and food security.

#### **Scope of the problem (slide 13)**

UNAIDS and WHO (2002) report that at the end of 2002 approximately 42 million people were infected with HIV/AIDS, of which over 29 million were living in sub-Saharan Africa. The adult prevalence rate was greater than 10 percent in 16 sub-Saharan African countries and 20 percent or higher in 7 of these countries (UNAIDS 2002; U.S. Bureau of the Census 2002). Many of the most severely affected communities and households in these countries were already food insecure before HIV/AIDS struck. HIV/AIDS increases the severity and frequency of food insecurity within households and creates food insecurity among previously food secure households and people.

Data from Zimbabwe and Ethiopia illustrate the impact of HIV/AIDS on household food consumption and production. A study in Zimbabwe (Kwaramba 1997) found that after a death in the household from HIV/AIDS, household crop production fell by 37 percent-61 percent (61% for maize, 49% for vegetables, 47% for cotton, and 37% for groundnuts). In Ethiopia a study showed that HIV/AIDS-affected households spent an average of 11.6-16.4 hours a week on agricultural work, compared with 33.6 hours a week spent by non-HIV/AIDS-affected households (UNAIDS 2002).

HIV/AIDS attacks food security not only by reducing food production but also by diminishing income and savings. Data from urban households in Côte d'Ivoire (Alban and Guinness 2000) show that the monthly per capita income in households with a member living with HIV/AIDS is approximately 65 percent less than that of the general population, and that HIV/AIDS-affected households have average *dissavings* of nearly 5,000 francs CFA, compared with average *savings* of approximately 2,000 francs CFA for the general population (slide 14).

By depleting human, financial, and physical capital, HIV/AIDS increases vulnerability to other shocks, such as droughts or conflict. When such shocks occur, the coping capacity of HIV/AIDS-affected households is seriously impaired because food and money reserves have already been depleted, productive assets may have been sold, and alternative earning capacity is limited by illness and care-giving responsibilities. For example, UNAIDS has reported that the impact of the 2002 drought in southern Africa was worsened by reduced household capacity to perform agricultural labor because of HIV/AIDS. The drought's severe consequences are an example of how HIV/AIDS worsens the impact of other shocks. In many cases the food security impact of HIV/AIDS is broader than the direct effects of illness.

### **Relationship between HIV/AIDS and food insecurity**

HIV/AIDS affects all three components of food insecurity-availability, access, and utilization. Nutritional care and support interventions mitigate the disease's impact on food utilization by strengthening the biological use of food to manage symptoms and strengthen immune function. The other sessions in this module describe how HIV/AIDS affects nutritional status and food utilization and how care and support interventions can address these impacts. This section examines the relationship between HIV/AIDS and food availability and access.

### **Special aspects of the HIV/AIDS-food security dynamic (slides 15, 16)**

While in certain respects the HIV/AIDS pandemic has an impact on food security similar to that of droughts, floods, conflict, and other shocks, the dynamic between HIV/AIDS and food security is unique in the following ways:

- Unlike most food security shocks, which may last for a single season or a single year, HIV/AIDS continues to erode food security year after year (Bonnard 2002).

- HIV/AIDS attacks people-both women and men-during their most productive years, weakening and killing the strongest producers of food and income (Haddad and Gillespie 2001).
- Unlike many other food security shocks, HIV/AIDS creates *additional* nutritional needs among infected people, widening the gap between food needs and food access.
- The stigma attached to HIV/AIDS may inhibit people or households from seeking assistance and hinder community efforts to address the impacts or prevent further spread (UNIADS 2002).
- The scale of the pandemic is larger than most food security shocks, affecting entire countries and regions and with high prevalence rates within communities.
- The time between infection and symptoms is often several years, leading to greater spread of HIV/AIDS in the interim. Recognition of the scale and impact of HIV/AIDS may not occur until prevalence is already high, limiting and delaying the establishment of coping strategies to deal with food security impacts (UNAIDS 1997).

Food insecurity itself can lead to adoption of riskier behaviors (e.g., migrant labor, transactional sex) by food-insecure household members, which may increase the prevalence of HIV/AIDS. This sets up a dynamic in which the shock's food security impact itself can worsen the scale of the shock.

#### **Effects of HIV/AIDS on food availability and access (slide 17)**

HIV/AIDS significantly impedes the food security of affected people, households, communities, and entire regions by decreasing-often drastically-the labor, income, assets, food reserves, savings, information exchange, institutional support, and community safety nets available to affected households. Gillespie, Haddad, and Jackson (2001) analyze the impact of HIV/AIDS on agriculture and livelihoods by looking at the ways the disease diminishes four types of capital (slide 18).

- **Human capital:** Reduced productivity and lost labor as a result of illness and death of infected people and to increased time demands on caregivers, lost knowledge transfer between generations, and lack of education of children unable to attend school because of caregiving or earning responsibilities
- **Financial capital:** Health and funeral expenses, reduced income from less productive or lost labor, sale of assets, dissavings, and loans to affected households
- **Social capital:** Reduced access to formal and informal networks and support systems because of stigma, overburdened support systems, depleted capacity to respond to begging or borrowing, declines in institution membership because of illness and death, and diminished incentives to cooperate for future benefits because of impending illness or death
- **Physical and natural capital:** Sale of productive equipment or land, sale of household assets (e.g., furniture), and loss of property rights by widow- or child-headed households or other survivors

Barnett and Blaikie (1992), Hunter et al (1993), Rugalema (1999), and Barnett and Halswimmer (1995) have shown that HIV/AIDS significantly damages farming systems. The results are “significant reduction in land use, declining crop yields, changes in cropping patterns, reduction in the range of crops and diminished crop enterprise diversity, which can result in a poorer diet, lower economic returns, loss of soil fertility and a decline in livestock activities” (CGIAR 2001).

In response to food security shocks, **households** often look to the community and to other households to help meet consumption needs. But with an increasing number of households affected and with people infected during their most productive years, community safety nets weaken and community resources diminish. Many **communities** face prevalence rates significantly higher than the already high national rates, and existing coping strategies often fail. Orphans and vulnerable children, who under other circumstances would be supported by communities or extended families, are often left to fend for themselves and are particularly vulnerable to food insecurity.

Faced with other types of food security shocks in the past, communities often have coping strategies to deal with food-insecure periods. While some of these coping strategies can be used in the face of HIV/AIDS, the distinct nature of the disease may render them ineffective. In many communities HIV/AIDS has only recently been recognized as a threat to food security, and specific coping strategies are often not in place to deal with the disease's impact.

Intra-household food distribution may favor healthy members at the expense of HIV-infected people who are no longer productive or are dying. In some cases people living with HIV/AIDS may deliberately reduce their food intake so other household members can consume more. Stigma can also contribute to uneven allocation of food or other resources, either within or among households, which further reduces people living with HIV/AIDS access to food.

As mentioned above, HIV/AIDS can also make communities more vulnerable to external shocks and further aggravate their impact. HIV/AIDS-affected households have diminished food and financial reserves, less effective coping strategies, and less earning capacity than other households to meet food needs in the face of drought, conflict, or other shocks. Table 1 in Bonnard (2002) provides specific examples of how HIV/AIDS can negatively affect the productive factors that underlie food security.

People living with HIV/AIDS require additional nutrients to help mitigate the physical impacts of the disease, but HIV/AIDS reduces their access to food. Efforts and interventions to provide nutritional care and support must account for and, where possible, directly address these access constraints.

***How food access and availability affect HIV/AIDS (slide 19)***

In some cases food insecurity leads people to adopt behaviors and livelihood strategies that put them at greater risk of HIV infection. Food-insecure populations are often the most vulnerable to the disease and its impacts. For example, household members may resort to commercial or transactional sex to earn money for food and basic necessities, thereby increasing the risk of infection to themselves, their spouses, and any future children. Members of food-insecure households may be more likely to work as migrant laborers to increase income, which may also lead to greater exposure to the virus.

Food-insecure populations may also lack access to education and materials, such as condoms, needed to prevent infection. Conflict, which often worsens food insecurity, can also increase vulnerability to HIV/AIDS infection because of forced migration of populations, sexual assault, disruption of support services and prevention efforts, and high HIV prevalence among and transmission by soldiers. The UN Interagency Standing Committee Task Force for HIV/AIDS in Emergency Settings is developing guidelines on HIV/AIDS in such situations.

The impact of HIV/AIDS is also more severe for food-insecure households. Such households are often less able to access and afford health care services for infected people. Households may be forced to choose between spending money on food or on health care. With less access to formal coping strategies such as insurance, food-insecure households rely more on family, friends, and community (Gillespie et al 2001), which becomes an increasingly weak support system as more and more households are themselves affected by the disease.

***Interventions to address HIV/AIDS and food security (slide 20)***

The interaction between HIV/AIDS and food security has been recognized relatively recently, and interventions to address this issue continue to emerge. While these interventions are too recent for their results to yield solid lessons, much can be learned from general food security interventions. Table 2 in Bonnard (2002) presents a range of possible interventions to address the impact of HIV/AIDS on productive factors that underlie food security.

Food aid can be an effective instrument to address food insecurity caused by HIV/AIDS. However, food aid needs to be programmed so as not to create disincentives for local production of food and not to create beneficiary dependence on food aid. Planners of food aid interventions should aim to use food resources to build the coping capacities of communities and households, in addition to meeting short-term food needs.

Food assistance can be used to directly increase food insecure households' access to food through safety net programs; to support agricultural activities through food-for-work programs; to support training programs in vocational and income-generating activities; and to encourage school attendance by orphans and vulnerable children, which can strengthen long-term food security.

Food aid programs targeting households affected by HIV/AIDS should consider the particular nutritional needs of people living with HIV/AIDS in designing rations. More information on planning food aid programs and rations for HIV/AIDS-affected populations is available in Potential Uses of Food Aid to Support HIV/AIDS Mitigation Activities in Sub-Saharan Africa (FANTA 2000) and Module 6 of HIV/AIDS: A Guide for Nutrition, Care and Support (FANTA 2001).

Agricultural extension and introduction of new technologies to reduce labor requirements can help maintain or improve agricultural productivity in the face of declining labor. For example, a USAID project has developed a drip irrigation system for HIV/AIDS-affected households in Zimbabwe that reduces the labor needed for irrigation by 50 percent.<sup>2</sup> Microfinance can support the maintenance or purchase of productive assets, help smooth income flow, and enable households to meet key food, health care, and other basic expenditures. While small loans can enable affected households to increase income, savings, and food access, microfinance interventions may need to be designed with special features in the context of HIV/AIDS to deal with challenges such as ill borrowers. For example, a microfinance program in Zimbabwe instituted a mandatory insurance fee to cover the cost of outstanding loans from borrowers who die (Horizons 2002).

Capacity building of networks and community support organizations can help address the erosion of institutions, support linkages with services, and maintain knowledge. Often networks and organizations already exist, although they may be weakened by the spread of HIV/AIDS in communities. Capacity building may involve training, strengthening the support that groups offer to HIV-affected households, developing coordination mechanisms between groups and services, and providing outreach to new community members and population groups.

Nutritional care and support practitioners should be aware of services to help strengthen food access and availability and when possible link and refer clients to them. Session 5 discusses approaches other than formal services, such as household strategies and allocation of food expenditures.

## **Food security constraints to nutritional care and support (slides 21, 22)**

Poor food access and availability at the individual or household level can impede capacity to implement optimal nutritional responses to HIV/AIDS. This section discusses how food insecurity limits capacity to meet the specific nutritional needs of HIV/AIDS-affected people. These needs correspond with specific topics in this module. As each topic is discussed in greater detail in its separate session, it will be helpful to consider the practical food security constraints. The next section discusses how counselors and care providers can address and deal with these constraints when providing nutritional care and support.

### **Infant feeding and PMTCT**

In the context of infant feeding and the prevention of mother-to-child transmission of HIV (PMTCT), food security issues pertain to replacement feeding options and complementary feeding for children over 6 months. For more information on infant feeding and PMTCT, refer to Session 7.

#### ***Replacement feeding and food security*** (slide 23)

A critical factor in determining whether HIV-infected mothers replacement feed or exclusively breastfeed their children from 0-6 months is access to affordable breastmilk substitutes (e.g., animal milk or formula) and facilities for their hygienic preparation (e.g., water and boiling tools).

**For HIV-infected mothers of children 0-6 months**, WHO recommends exclusive replacement feeding only if it is acceptable, feasible, affordable, sustainable, and safe. Four of these five factors-feasibility, affordability, sustainability, and safety-are related to food security. For many mothers the feeding decision is determined by their access to the necessary foods or facilities. Counseling to support HIV-infected mothers in infant feeding choices should combine information about feeding options and safe practices with consideration of the realities and constraints of each mother's food security situation.

If HIV-infected mothers are breastfeeding their children, WHO recommends that **once children of HIV-infected mothers reach 6 months of age**, or earlier if possible, mothers cease breastfeeding and begin replacement feeding. For this to occur, mothers must have access to the required foods and facilities. A common

reason that many HIV-infected mothers continue to breastfeed their children after 6 months, thereby increasing the risk of mother-to-child transmission, is their inability to afford replacement feeding options.

To facilitate a successful transition from exclusive breastfeeding to replacement feeding and to complementary feeding (see below), service providers must support mothers in addressing the food security constraints impeding their transition. Specifically, priority must be placed on access to breastmilk substitutes for children under 6 months and access to breastmilk substitutes and adequate sources of complementary foods for children over 6 months. This may involve providing linkages to safety net services or food aid or helping to plan reallocation of household expenditures to afford these items.

***Complementary feeding and food security*** (slide 24)

Practicing proper complementary feeding of children between the ages of 6-24 months and obtaining adequate nutritious foods for complementary feeding are challenges to many poor households, even outside the context of HIV/AIDS. The disease exacerbates this challenge by diminishing household resources and may create the need for complementary foods with higher levels of micronutrients (e.g., iron, zinc, vitamin A, vitamin C, and folic acid) than are contained in some breastmilk substitutes. Complementary foods need to be protein-calorie dense and contain sufficient levels of macronutrients. Because it is recommended that HIV-infected mothers not breastfeed their children past 6 months of age and because some breastmilk substitutes such as cow's and goat's milk lack key nutrients contained in breastmilk, accessing complementary foods containing these nutrients is critical.

To support appropriate complementary feeding of children of HIV-infected women, merely providing information to mothers and caregivers about nutritional requirements and food types may be insufficient. In addition to understanding the knowledge and behavior constraints, counselors and service providers need to understand the food security constraints that inhibit proper complementary feeding. Based on this information, they can help mothers identify feasible options within these constraints. Such options may include seeking fortified foods where possible, providing referrals for food assistance or other safety net services, and helping to identify which available foods are optimal for complementary feeding.

## **Pregnant and lactating women (slide 25)**

Pregnant and lactating women have additional protein, energy, and micronutrient needs, and those living with HIV/AIDS need higher levels of energy than those who are not HIV/AIDS affected (for more information on specific requirements and recommendations, refer to Session 6 of this module). However, external and intra-household factors mean that many pregnant and lactating women living with HIV/AIDS lack access to sufficient quantities of foods containing these nutrients. Therefore, knowledge of the need for additional nutrients and even of the best locally available foods to consume will not necessarily lead to improved nutritional practices.

Counselors or service providers need to understand the specific food security constraints that prevent women from following recommendations to be able to identify feasible options to meet their nutritional needs. For pregnant or lactating women, intra-household issues (stigma, women's status and decision-making power, intra-household food distribution, and income access) as well as external factors may contribute to food insecurity. In such cases, counselors may need to facilitate greater understanding in the household about the infected women's nutritional needs and the importance of supporting her dietary habits and other care.

## **Management of drug and food interactions (slide 26)**

Medications to treat HIV and opportunistic infections often require specific complementary food responses to alleviate side effects, improve efficacy, maintain nutritional status, and ensure continued adherence to the drugs. Session 9 offers guidance and specific recommendations about these issues.

Many people living with HIV/AIDS, however, cannot follow optimal food and nutrition recommendations because they cannot access the foods required. For example, vitamin B<sub>6</sub> supplements are recommended for people taking Isoniazid to treat tuberculosis because the drug inhibits the metabolism of vitamin B<sub>6</sub> (FANTA 2001). In limited-resource settings many people living with HIV/AIDS may lack access to such supplements. Service providers can help people living with HIV/AIDS access supplements through health facilities and recommend locally available, affordable, and acceptable foods rich in vitamin B<sub>6</sub>, such as sweet potatoes, white beans, maize, oil seeds, green leafy vegetables, meat, and fish.

By impeding effective management of drug and food interactions, food insecurity can lead to poorer nutritional status, aggravated side effects, and in some cases reduced drug efficacy. These outcomes in turn can lead to poor medication adherence, as people living with HIV/AIDS unable to access the foods needed to complement a medication may stop taking the drug mid-course. This has serious implications both for the individual, whose health will likely decline following termination of the medication, and for others in the household and community, as poor adherence can lead to resistant strains of infections or viruses, including tuberculosis and HIV. Rapid deterioration of the individual's health can also lead to more severe declines in household food security because of lost labor and productivity.

Counselors and service providers who offer guidance on management of drug and food interactions should help clients identify factors that might prevent them from following recommendations and help address these constraints by identifying foods and schedules suitable for the specific medications.

### **Nutritional management of symptoms**

Session 5 offers information and recommendations for nutritional management of symptoms common among people living with HIV/AIDS. Food insecurity can impinge on the capacity to follow these recommendations. For example, patients with anemia need foods rich in iron, and patients with thrush need soft, mashed foods. The lack of such foods makes households and people less able to meet these dietary needs, resulting in poorer symptom management. Nutritional care and support efforts need to account for food security constraints by working with clients to identify feasible options for symptom management based on available foods.

### **Implementing effective nutritional care and support in the face of food security constraints (slides 27, 28)**

Given the food security constraints described above, it is important for counselors, service providers, and others who provide nutritional care and support to account for and address food access and availability factors. Unless nutritional counseling is informed by an understanding of the specific food security constraints affecting clients, it may fail to offer practical, feasible options for people living with HIV/AIDS to improve their health and nutritional status.

Implementation of nutritional care and support through counseling can be organized into three stages: **assessment**, **option selection**, and **follow-up**. Food security issues can be addressed and integrated in each of these stages. **Handout 4** outlines steps to integrate food security issues into nutritional care and support counseling sessions.

### **Assessment**

The first stage of nutritional care and support interventions is the assessment. This gives counselors an opportunity to assess food access gaps, sources, and options.

#### ***Understanding the sources of food insecurity*** (slide 29)

A nutritional care and support assessment consists primarily of determining the client's nutritional needs based on nutritional status, progression of the disease, opportunistic infections, symptoms, and medication. At this stage it is also critical to assess the client's current food and nutrition practices and factors that may prevent the client from adopting recommended practices.

Lack of knowledge may be addressed by education and counseling. Other factors may include lack of financial or physical capacity to purchase or produce sufficient quantities of required foods, intra-household food distribution that favors non-HIV-infected people, or food taboos such as those for pregnant women. A number of common constraining factors are listed above.

Identifying these constraints will require discussing general household issues such as overall food provisions from all sources, expected harvest of specific crops, employment and sources of income, and status of other household members. Understanding the approaches a household is using to maintain food security involves asking the following questions:

- What coping strategies are the household and community using and how adequate are they?
- What support networks exist and how adequate are they?
- What strategies used in the past are no longer possible in the context of HIV/AIDS?

- Which coping strategies are having negative effects (e.g., sale of assets, risky lifestyle activities)?
- What components need to be supported and built up and how?

The objective of this process is to better understand the household's food security situation, strategies to maintain or improve the situation, and opportunities that can be supported or enhanced. Counselors need to broach these topics in addition to discussing the clients' health status to understand the sources of food insecurity and help clients identify and address these factors.

Assessments focus on improving the counselor's knowledge of client feeding practices and of the underlying factors that could constrain or motivate the clients to improve their diet. Understanding the specific nature of these factors is critical to provide appropriate guidance and help clients identify feasible options for nutritional responses.

### ***Identifying gaps in access to key foods and nutrients*** (slide 30)

An understanding of nutritional needs and food security constraints should make it possible to identify foods and nutrients the client is not consuming in sufficient quantities because of poor access and availability. An effective assessment identifies these gaps and the causes of sub-optimal consumption. When lack of knowledge or difficulty in eating as a result of HIV/AIDS symptoms cause low consumption, education and suggestions of new dietary practices to ease symptoms may be sufficient to enable improved intake. In other situations poor food availability or access is the cause.

Assessments will be client specific. Individual nutritional needs vary to some extent depending on the stage of disease, medications taken, and opportunistic infections and symptoms. Reasons for failing to meet nutritional needs also vary. For example, an HIV-infected person or a caregiver may have access to relatively plentiful quantities of energy- and nutrient-rich food but be unaware of the need to eat more of it. Another person infected with HIV may not be able to afford greater quantities of energy- and nutrient-rich food (which may be more expensive than less nutrient-dense staple foods). Still another may not have the status in the household to

demand these foods. A good assessment allows the counselor to understand a client's specific situation and constraints.

### ***Identifying capacities and options*** (slide 31)

Knowing which nutrients and foods a client needs more access to and what factors constrain this access enables the counselor to work with the client to identify feasible options for nutritional care and support.

An important part of an assessment is identifying the capacities of the client and household members to address food security constraints and supporting improved nutritional practices within these constraints. For example, an older child may be able to support a sick parent by ensuring they follow a regimen of frequent feeding. It is also important to recognize which capacities carry opportunity costs. For example, playing a care-giving role may prevent a child from attending school or earning income.

There may be potential for refining existing coping strategies to address specific nutritional needs. Households that produce tubers and cereals can allocate some space to grow vegetables rich in micronutrients. Such vegetables can complement foods high in energy to meet the specific micronutrient needs.

Based on clients' needs and capacities, counselors work with clients to identify options to strengthen their capacity to implement nutritional care and support. This process, building on the specific food security situation, identifies options to improve access to required foods; examples of such options are discussed in the next section. It is critical to work with clients, caregivers, and possibly other household members to identify options for improving food security and maximizing nutritional care and support within specific household constraints.

### **Selection of options**

Based on the assessment, counselors work with clients to select appropriate and feasible options from among those identified to improve dietary practices. The counseling process should integrate nutritional recommendations with a) guidance about how to adopt these recommendations within a household's food security constraints and b) support for needed measures to strengthen food security. Informing clients about nutritional needs and recommended dietary practices alone

is not sufficient. Recommendations need to be practical, and support is needed to enable application of recommendations.

***Identifying feasible alternate dietary practices and options*** (slide 32)

A critical aspect of counseling is working with clients to identify feasible ways to follow nutritional care and support recommendations. Poor food availability and access prevent many people living with HIV/AIDS from adopting optimal nutritional responses to HIV, opportunistic infections and symptoms, and medication. In such cases it is essential to find alternate dietary practices that are possible within the specific constraints.

Identifying optimal feasible alternatives requires understanding the client's specific nutritional needs and food security constraints, as well as knowledge of locally available foods. When recommended foods are not available or accessible for economic, seasonal, or other reasons, it is important to find locally available substitutes.

In some cases this process will involve second-best or third-best options such as finding available, affordable foods that do not provide the full levels of nutrients required but still provide more than the existing diet. If the schedule of other household members does not allow optimal frequency of feeding, a second-best option may be to develop a schedule that still enables greater frequency than usual and includes meals with medication as needed.

***Increasing food security*** (slide 33)

Counselors and service providers should seek opportunities to support households in directly improving food availability and access. In addition to strengthening household livelihood and mitigating the impact of HIV/AIDS, improved food security also enables stronger nutritional care and support.

Links and referrals to services

One way to support clients in improving food availability and access is to link them with services that address household livelihoods and food security. Health and nutrition counselors and service providers can refer clients to programs for food aid, safety nets, or other services.

Counselors should be aware of and in touch with relevant programs that cover the geographic areas where they work. It is important to work with program managers operating these services to agree on criteria for participation to ensure that eligible beneficiaries are referred. In some cases it may be necessary to establish a formal link between the nutrition services and livelihood or safety net programs to avail referrals; in other cases informal information exchange may suffice.

#### Adjusting expenditure allocations

Even without external resources, households can often reduce the food security constraints impeding nutritional care and support to some extent. For example, household food expenditures can be reallocated to increase purchase of foods energy-rich foods needed by people living with HIV/AIDS or foods helpful for managing symptoms (e.g., soft foods for oral thrush). The Minnesota International Health Volunteers community program in Uganda works with people living with HIV/AIDS to help them plan their food budgets. Emphasis is placed on increasing the proportion of energy- and nutrient-dense foods relative to staple foods that are not nutrient dense.

#### Intra-household food allocation and behaviors

Intra-household allocation of food can limit the capacity of people living with HIV/AIDS to access the quantity and diversity of foods needed for effective nutritional care and support. This is especially the case when poor households choose to allocate lower quantities or poorer quality food to people living with HIV/AIDS as a result of stigma, their poor productivity, or the perception that spending resources on someone who will die soon is wasteful. Counselors and service-providers can help facilitate changes in intra-household food allocation and emphasize the benefits of proper nutrition for people living with HIV/AIDS and their families and communities. Home-based care settings offer a strong opportunity for such interventions.

Simple adjustments to household food practices can also enhance the capacity for nutritional care and support. Such adjustments include changing meal practices and schedules to accommodate more frequent feeding for people living with HIV/AIDS.

***Involving people living with HIV/AIDS, caregivers, and household members*** (slide 34)

People living with HIV/AIDS and to some extent caregivers and other household members have the best knowledge of existing options and relevant constraints. These people ultimately will choose whether to implement and continue dietary recommendations and therefore must believe the nutritional recommendations are credible and feasible. Therefore, it is critical to involve these stakeholders at all stages of the processes described above. For example, to assess the food security situation and identify opportunities to strengthen it, counselors should discuss the questions and issues mentioned above (under “Understanding the sources of food insecurity”) with clients, caregivers, and household members. Successful counseling must fully involve these people at all stages—assessing needs, identifying constraints and underlying factors, identifying capacities and options, selecting approaches, and planning implementation of these approaches.

**Follow up** (slide 35)

Follow up to nutritional counseling focuses on examining how many of the recommended practices are followed, what changes in health and nutritional status are evident, and what further support is needed. Follow-up sessions should also assess whether food security constraints have been addressed, what remaining or new food security issues impede nutritional care and support, and what further measures may be needed to address these issues and strengthen the capacity for nutritional care and support.

Follow up may indicate that new approaches are required. For example, if a client shows strong knowledge of nutritional needs but is unable to follow them because of the household’s declining earnings, further nutrition education may be less useful than other approaches focused on food access, such as household budgeting exercises, prioritizing food needs to facilitate optimal food expenditure and diet within the household’s budget, or referrals to safety net resources or services to strengthen livelihoods.

## **Conclusion** (slide 36)

The capacity to implement effective nutritional care and support depends heavily on household food security. Information about optimal nutritional practices is often not sufficient to enable people living with HIV/AIDS to improve their health and nutritional status. Providers of nutritional care and support need to assess clients' food security situations and underlying factors, identify feasible dietary options within the food security constraints, and where possible help address the sources of food insecurity through referrals or linkages to programs and through improved household practices and strategies.

The remaining sessions of this module focus on specific dimensions of nutritional care and support. Successful implementation of each of these dimensions is undermined by food insecurity. Each nutritional recommendation and intervention requires consideration of specific food security constraints and options to address these constraints. Considering the food security issues laid out in this session will enable stronger practical application of each topic's information and recommendations, thereby enabling improved nutritional care and support for people living with HIV/AIDS.

## **Notes**

1. The United Nations Subcommittee on Nutrition (UN ACC/SCN 1991) defines food security in the following way: "A household is food secure when it has access to the food needed for a healthy life for all its members (adequate in terms of quality, quantity and culturally acceptable), and when it is not at undue risk of losing such access." The International Fund for Agricultural Development (IFAD) organizes household food security into the concepts of acquirement and utilization ("Food Security - A conceptual framework").

2. This system was developed by Development Alternatives, Inc., and International Development Enterprises through the 5-year, USAID-funded LEAD (Linkages for the Economic Advancement of the Disadvantaged) project (Dratt 2002). Promising practices on multisectoral approaches to HIV/AIDS. Washington, DC: PVO-USAID Steering Committee for Multisectoral Approaches to HIV/AIDS; Kadiyala, S, and S Gillespie. 2003. Rethinking food aid to fight AIDS. Washington, DC: IFPRI).

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## EXERCISE 4

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The following tasks will help students

- Critically analyze specific food security situations and identify and assess constraints, enabling factors, and capacities
- Identify practical options to address food security and solve problems
- Practice interacting, counseling, and advising various types of clients about food security issues in different contexts
- Think through ways that food security affects specific nutritional care and support needs and situations

Facilitating a brief class discussion after each exercise can further draw out the lessons learned and ideas generated through the role-plays. This will allow the observers and the participants in the role-plays to comment on what is learned from the activity. Discussion also allows the instructor to emphasize key points from the lecture.

Tutors and instructors may develop additional exercises that reflect the circumstances in their countries or situations commonly faced by members of the students' professions (e.g., specific role-plays for doctors or for nutritionists). Facilitators and participants may want to assign names to characters in the role-plays.

**TASK 1:** Ask students to brainstorm food security constraints individually, in pairs, or in small groups. Select a specific nutritional care and support topic from this module (e.g., "Management of Drug-Food Interactions" or "Infant Feeding and PMTCT"). Ask the students to respond to the following questions from the point of view of a service provider planning nutritional care and support interventions on this topic:

1. How does poor food availability or access impede people living with HIV/AIDS and caregivers from following the recommendations for this topic? What important foods or food groups do they lack strong access to?
2. Which recommendations from this topic may be especially difficult to follow because of food insecurity?
3. What alternative recommendations for this topic or adjustments to these recommendations can be made for food-insecure households?
4. What common types of food insecurity and underlying factors in your country particularly affect the recommendations offered for this topic? What do practitioners need to look for during assessment, counseling, and follow up?
5. What types of services and interventions can address food security constraints (e.g., less labor, depleted savings, and poorer agricultural output)? What steps are being taken in your country to address these constraints?

**TASK 2:** This two-person role-play addresses household food security. Ask one student to play the role of the client and another to play the role of a counselor. A 35-year-old widow living with HIV/AIDS has received nutritional care and support counseling through a health center for the past 3 months. She shows knowledge and awareness of her nutritional needs, but her health and nutritional status has shown no improvement during this time; in fact, she has lost 2kg. The woman explains that she has not been able to follow most of the recommendations because of her family situation. She and her three children live with her brother, his wife, and their four children. She has not been well enough to work, and her brother's income barely covers basic necessities for the 10 of them. Her sister-in-law has been suggesting that the woman and her children are a burden and has favored her own family at mealtimes. Ask students to help the woman identify options to improve her nutritional status by discussing the following questions.

1. What options are open to the woman? How can she be supported to pursue them?
2. Do psychosocial factors also affect the woman's dietary habits?

3. What should be recommended for her children's diet and nutrition? If she gives most food available to her to her children, eating very little herself, how should a counselor deal with this?
4. Can the counselor play a role in easing the family constraints?
5. What can the community do in this situation? Are any specific community services feasible?
6. What types of further education may be needed? For whom?

**TASK 3:** This task involves a case study of working with food security programs and can be conducted as a small group discussion and brainstorming or a two-person role-play, or both. Ask students to brainstorm key issues and then ask one student to role-play the manager of the counseling program and another the food aid manager.

As manager of a health and nutrition counseling program, you hear that a food assistance program will open soon for HIV/AIDS-affected families. Realizing that many of your clients drastically need this kind of support, you make an appointment with the food aid program manager to discuss how to establish linkages so that clients can be referred from your program to receive food assistance. You also want to take the opportunity to discuss the types of food assistance used to encourage provision of foods most needed by HIV-infected people. Discuss the following questions and issues.

1. What key results and points of agreement should you leave the meeting with?
2. What are the criteria for admission to the program? Can nutritional status be incorporated into the criteria? If so, how?
3. Is there an opportunity to improve the foods offered by the food aid program to better address the nutritional needs of people living with HIV/AIDS? How can this be done given available foods? What other factors (e.g., local acceptability, energy needs, food preparation, and dietary behaviors) should be considered in designing the food package?
4. What sort of system can be established for referrals?

5. Will referrals and targeting of people living with HIV/AIDS increase stigma? How can this be addressed?
6. Can nutritional care and support counseling or follow-up be integrated into the program? How?

**TASK 4:** This three-person role-play addresses food security and managing drug and food interactions. Students take the roles of a doctor, a father, and his daughter. The doctor is checking the status of a man living with HIV/AIDS who has recently begun antiretroviral therapy. The man's 13-year-old daughter, who is his primary caregiver, indicates that he has taken the medicines irregularly because of the side effects, including diarrhea and nausea. The doctor makes a number of dietary recommendations to address the side effects, but the father and daughter indicate they do not have regular access to the foods the doctor recommends the father consume daily. The doctor tries to understand the constraints they face and discusses other dietary and food preparation options to deal with the side effects. Students should discuss the following questions.

1. What specific food constraints does the patient face? Are there alternative dietary recommendations?
2. What information (e.g., hygiene, eating habits, and cooking techniques) would be useful for the doctor?
3. Can some of these constraints be alleviated by meal planning? By adjusting food expenditures? By referrals?
4. What role can the daughter play in this process?
5. What information should the man be given? The daughter?
6. What sort of system would help ensure that the man does not miss any doses?

## **HANDOUT 4 Steps to Address Food Security in Nutritional Care and Support Counseling**

Students can use this handout to help them integrate food security issues into nutritional care and support counseling. For information on nutritional care and support counseling, refer to Session 6.

### During ASSESSMENT

- 1) Understand the sources of food insecurity for the client and household.
  - a) What factors prevent the client from adopting recommended dietary practices?
  - b) What is the status of food supply, production, income, and employment?
  - c) What coping strategies are used?
  - d) What strategies or support mechanisms need support?
- 2) Identify key food and nutrient access gaps.
  - a) What foods and nutrients does the client need more of?
  - b) What causes these gaps?
- 3) Identify capacities and options.
  - a) What capacities (e.g., support from household members, coping strategies) do households have to reduce food security constraints?
  - b) What options are there for strengthening nutritional practices?

### During OPTION SELECTION

- 1) Identify feasible dietary practices and options. Which dietary options can meet client's nutritional requirements and are feasible within the food security constraints?
- 2) Identify ways to help increase food security.
  - a) Can households link or be referred to services supporting food security and livelihoods?
  - b) Can households adjust expenditures to increase purchase of foods rich in nutrients required by people living with HIV/AIDS?
  - c) How can changes in intra-household food allocation and behaviors be facilitated?

### During FOLLOW UP

- 1) Assess how food security constraints have been addressed and what further food security issues require attention.
- 2) Determine whether additional approaches are required.

THROUGHOUT THE PROCESS, involve client, caregivers, and household members.