

## **SESSION 7: FOOD SECURITY AND NUTRITION CARE AND SUPPORT OF PEOPLE LIVING WITH HIV**

### **Purpose** (slide 2)

The purpose of this session is to:

- Introduce students to the constraints posed by food insecurity for nutrition care and support for people living with HIV.
- Help students understand approaches to implementing nutrition care and support in food-insecure contexts.

### **Learning objectives** (slide 3)

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

- Define food security and related concepts.
- Explain factors that influence food security.
- Describe the relationship between HIV and food insecurity.
- Explain the effects of food insecurity on nutrition care and support capacity.
- Describe interventions and approaches to optimize nutrition care and support in the context of food insecurity.

### **Prerequisite knowledge**

- Session 1: Basic Facts about HIV/AIDS
- Session 4: Nutrition Management of HIV-Related Symptoms
- Counseling knowledge and skills
- Community support groups and structures

**Estimated time:** 140 minutes

**Session guide** (slide 4)

<b>Content</b>	<b>Methodology</b>	<b>Activities</b>	<b>Estimated time (minutes)</b>
Introduction	Participatory lecture		5
Components and dimensions of food security	Large group work	Ask students to brainstorm meanings of food security and then present food security components.	15
Factors that influence food security	Participatory lecture		10
	Group activity (optional)	Pass out cards with terms and definitions and ask students to match them and present each term and definition.	15
Food security and HIV	Participatory lecture		15
Implementation of nutrition care and support in the face of food security constraints		Pass out <b>Handout 7</b> . Present information about the three stages of nutrition care and support.	25
	Group exercises and role play	Ask groups to read case studies and exercises, perform role plays, and discuss.	25
Conclusions			5
Review			5
Total time			140

### **Required materials**

- Flipchart paper and stand or blackboard
- Writing pens and chalk
- Overhead projector and transparencies or LCD projector and laptop

### **Materials provided**

- PowerPoint 7
- **Handout 7.1. Steps to Address Food Security in Nutrition Care and Support**

### **Preparation**

1. Review Lecture Notes and PowerPoint 7.
2. Review the handout and exercises to identify questions to help students master the concepts.

### **Suggested reading**

Bonnard, P. 2002. HIV/AIDS Mitigation: Using What We Already Know. Washington, DC: FANTA Project, Academy for Educational Development.

Gillespie, S., and S. Kadiyala. 2005. HIV/AIDS and Food and Nutrition Security: From Evidence to Action. Washington, DC: International Food Policy Research Institute.

Gillespie, S., L. Haddard, and R. Jackson. 2001. HIV/AIDS, Food Security, and Nutrition: Impacts and Actions. Nutrition Policy Paper 20: Nutrition and HIV/AIDS. Geneva: UN Administrative Committee on Coordination sub-Committee on Nutrition (ACC/SCN).

Maxwell, S., and T. Frankenberger. 1992. Household Food Security: Concepts, Indicators and Measurements. New York, UNICEF/IFAD.

## **Related terms**

**Chronic food insecurity** – Persistent shortage of food that often reflects the extent of poverty in a community

**Food access** – Resources people have to obtain a sufficient quantity and quality of food for a nutritious diet

**Food availability** – Availability of sufficient quantities of food in a country, region, or household through production, imports, or food assistance

**Food insecurity** – Failure to meet the conditions for food security defined above; can be transitory or chronic, depending on the duration of the insecurity

**Food security** – All people at all times having both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life (USAID 1992)

**Food utilization** – Biological use of food by the body

**Household food security** – Ability of a household to acquire enough food through production or purchase to meet the nutritional and physiological needs of all its members at all times

**National food security** – Ability of a nation to acquire and store food sufficient to meet the food requirements of all its residents

**Transitory food insecurity** – Temporary shortage of food because of a particular event of short duration (e.g., season, temporary loss of employment or income)

## **Food security definitions** (slide 5)

Food insecurity occurs when people do not have continued access to a sufficient quantity and quality of food to meet their physiological needs. 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."

This session focuses on the relationship between food security and HIV, the constraints that food insecurity places on care and support, and implementation of nutrition care and support in food-insecure contexts.

## **Components of food security** (slide 6)

The USAID conceptual framework of food security involves three distinct but interrelated components: food availability, food access, and food utilization. Achieving food security requires sufficient physical supplies of food (availability), adequate household access to these food supplies (access), and appropriate use of food to meet people's specific dietary and physiological needs (utilization).

Food is **availability** is achieved when sufficient quantities of food are consistently available to all people in a country, region, or household through domestic production, commercial imports, and/or food assistance.

Food **access** is achieved when people have adequate resources to obtain sufficient quantity and quality of food for a nutritious diet. Food access depends on income available to the household, distribution of income in the household, and the price of food.

Food **utilization** is the proper biological use of food by the body, influenced by the efficiency of the body's physiological processes and affected by the availability of clean and safe water, adequate sanitation, a diet that provides sufficient levels of essential nutrients, proper child care and illness management, and knowledge of household food storage and preparation techniques.

Information in this session is organized according to these three components of food security. Similar conceptual frameworks have been developed by other agencies.<sup>1</sup>

## **Factors that affect food security** (slide 7)

The factors that negatively affect food security can be divided into four categories:

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<sup>1</sup> The United Nations Subcommittee on Nutrition (UN ACC/SCN) defines food security in the following way (1991): "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 and 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," available at [http://www.ifad.org/hfs/thematic/rural/rural\\_2.htm](http://www.ifad.org/hfs/thematic/rural/rural_2.htm)).

- **Individual-level constraints:** Food habits, reduced capacity to eat because of infection symptoms, lack of knowledge of the benefits of proper feeding, and psychosocial factors such as depression
- **Household constraints:** Lack of production and purchasing power, inequitable intra-household distribution of food and income, lack of knowledge of nutritional needs and dietary practices, food taboos, and changes in prioritization among household members as a result of disease
- **Constraints external to the household:** Seasonal variation in production, price fluctuations, social stigma, market availability, legal issues, and social customs
- **External shocks:** Conflicts, drought, floods, earthquakes, macroeconomic crises, etc.

Factors that affect food security also can be grouped according to the three components of food security, as shown in table 1.

**Table 1. Factors that affect food security**

Availability	Access	Utilization
<ul style="list-style-type: none"> <li>• Land availability</li> <li>• Land productivity</li> <li>• Quantity and quality of labor force</li> <li>• Availability of productive assets</li> <li>• Availability of inputs and production tools</li> <li>• Climate and climatic shocks</li> <li>• Food production infrastructure</li> <li>• Time for production</li> <li>• Roads and transport</li> </ul>	<ul style="list-style-type: none"> <li>• Income</li> <li>• Savings and assets</li> <li>• Market infrastructure</li> <li>• Social constraints, including stigma</li> <li>• Macroeconomic issues and terms of trade</li> <li>• Physical barriers and constraints</li> <li>• Culture and traditions</li> <li>• Conflict</li> <li>• Intra-household food distribution</li> <li>• Availability of food assistance</li> </ul>	<ul style="list-style-type: none"> <li>• Food quality and diversity</li> <li>• Knowledge of nutritional requirements</li> <li>• Knowledge, skills, time, and resources to prepare food</li> <li>• Water supply</li> <li>• Environmental sanitation</li> <li>• Disease and infections</li> <li>• Food habits</li> <li>• Care practices, including child care and care of sick</li> </ul>

The exercises that follow 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 nutrition care and support needs and situations.

Facilitating a brief class discussion after each exercise can draw out lessons learned and ideas generated through the role-plays. This will allow the role-play participants and

observers to comment on what they learned from the activity and the instructor to emphasize key points from the lecture.

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

**Exercise 1.** Ask students to brainstorm food security constraints individually, in pairs, or in small groups. Select a specific nutrition care and support topic from this Training Manual (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 nutrition care and support interventions on this topic:

1. How does poor food availability or access make it difficult for PLHIV and caregivers to follow the recommendations for this topic? What important foods or food groups do they lack access to?
2. Which recommendations from this topic may be especially difficult to follow because of food insecurity?
3. What alternative recommendations or changes in the recommendations for this topic could you make for food-insecure households?
4. What common types of food insecurity and underlying factors in your country particularly affect the recommendations 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?

### **Food insecurity and HIV (slide 8)**

HIV can cause and worsen food insecurity, and food insecurity can increase vulnerability to HIV and the impact of HIV. This section examines the reciprocal effects of HIV and food security. The food insecurity commonly faced by HIV-affected households can prevent people living with HIV (PLHIV) from meeting their nutritional requirements. Service providers can offer more effective nutrition care and support when they understand a household's specific food security situation, the constraints that insufficient food access places on recommended dietary practices, and mechanisms to reduce these constraints.

### **Scope of the problem (slide 9)**

UNAIDS (2005) reports that approximately 40 million people are living with HIV worldwide, of which approximately 22.5 million live in sub-Saharan Africa. Prevalence in southern Africa is particularly high. HIV prevalence among pregnant women is 30 percent in South Africa (2004), 43 percent in Swaziland (2004), 32 percent in Botswana (2006), and 18 percent in Zimbabwe (2006).

Many of the most severely affected countries, communities, and households were already food insecure before the onset of HIV. HIV increases the severity and frequency of food insecurity within households and creates food insecurity among previously food-secure households and people.

### **Effect of death on crop production (slide 10)**

Data from many countries show the negative impact of HIV on household food consumption and production. For example, a study in Zimbabwe (Kwaramba 1997) found that after a death in the household from HIV/AIDS, household crop production fell by 37–61 percent overall, with a 61 percent decrease for maize, 49 percent decrease for vegetables, 47 percent decrease for cotton, and 37 percent decrease for groundnuts.

A study in Kenya (Yamano and Jayne 2004, cited in Gillespie and Kadiyala 2005) found that the death of a male adult household head reduced the value of household crop production per household member by 68 percent. A study in Ethiopia (UNAIDS 2002) showed that HIV-affected households spent an average of 11.6–16.4 hours a week on agricultural work, compared with 33.6 hours spent by non-HIV-affected households.

### **Impact of HIV on income, Côte d'Ivoire (slide 11)**

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

In a 5-year study in Zambia (Nampanya-Serpell 2000, cited in Gillespie and Kadiyala 2005), two thirds of HIV-affected households studied experienced reductions in disposable income by more than 80 percent.

HIV affects food security not only by reducing food production and hence availability, but also by depleting human, financial, and physical capital. Depleted human, financial, and physical capital increase vulnerability to other shocks such as crop failure, drought, or conflict. Such shocks seriously impair the coping capacity of HIV-affected households 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. UNAIDS (2002) reported that the impact of the 2002 drought in southern Africa was worsened by reduced household capacity to perform agricultural labor because of HIV. The drought's severe consequences are an example of how HIV worsens the impact of other shocks. In many cases the food security impact of HIV is broader than the direct effects of illness.

### **Dynamic between HIV and food security (slide 12)**

In certain respects, HIV/AIDS pandemic's impact on food security is similar to that of other shocks such as conflict, drought, and floods, but the dynamic between HIV and food security is unique in the following ways:

Most food security shocks last for a single season or a single year, but HIV is a long-term phenomenon that continues to erode food security year after year (Bonnard 2002). Many countries have not yet experienced the peak of HIV prevalence and will be affected by this shock for decades to come.

HIV attacks both women and men during their most productive years, weakening and killing the strongest food and income producers (Haddad and Gillespie 2001).

HIV increases the nutritional needs of infected people, widening the gap between food needs and food access. As noted in other sessions of this manual, HIV infection can increase the energy needs of PLHIV from 30 to 100 percent.

Stigma attached to HIV may inhibit people or households from seeking assistance and hinder community efforts to address the impacts or prevent further spread of the disease (UNAIDS 2002).

The scale of the pandemic is larger and more widespread than many other types of food security shocks, as it can affect entire countries and regions.

Food insecurity itself can cause people to adopt risky behavior or livelihoods (e.g., transactional sex, migrant labor that keeps household members away from home for extended periods of time), which may increase the risk of HIV exposure.

### **Effects of HIV on food availability and access** (slide 13)

HIV significantly impedes the food security of affected people, households, countries, 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. In summary, HIV effects food availability and access in the following ways:

- **Reducing labor availability** as a result of illness and death of infected people and increased time demands on caregivers
- **Decreasing income and depleting savings** because of reduced production, lost labor and death of household members, health and funeral expenses, sale of assets, and loans to other affected households
- **Depleting food reserves** for entire communities as some households reduce production
- **Interrupting knowledge transfers**, particularly agricultural and livelihood knowledge, between generations and decreasing knowledge and opportunities gained through education as children become increasingly unable to attend school because of care giving or other household responsibilities
- **Weakening safety nets and support systems** through reduced access to formal and informal networks and support systems because of stigma, overburdened support systems, declines in institution membership because of

illness and death, and diminished incentives to cooperate for future benefits because of impending illness or death

Barnett and Blaikie (1992), Hunter et al (1993), Rugalema (1999), and Barnett and Halswimmer (1995) have shown that HIV 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). Gillespie and Kadiyala (2005) identify studies showing that HIV negatively affects agricultural extension by reducing the number of extensionists available.

In response to food security shocks, households often look to the community and other households to help meet consumption needs. But with more and more households affected and people infected during their most productive years, community safety nets weaken and community resources diminish. In many communities prevalence rates are significantly higher than the already high national rates, and existing coping mechanisms often fail. Orphans and vulnerable children (OVC), 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.

Communities often have developed coping strategies to deal with other food security shocks in the past. They can use some of these coping strategies in the face of HIV, but the distinct nature of the disease may make them ineffective. In many communities HIV has only recently been recognized as a threat to food security, and specific coping strategies are not yet 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 dying. In some cases, PLHIV may deliberately reduce their food intake so other household members can eat more. Stigma can also contribute to uneven allocation of food or other resources within or among households, further reducing PLHIV’s access to food.

As mentioned above, HIV can also make communities more vulnerable to external shocks and further aggravate their impact. HIV -affected households have diminished food and financial reserves, less effective coping strategies, and less earning capacity than other households. Therefore, they may be a burden to the community rather than contributing in times of general shocks.

PLHIV need additional nutrients to mitigate the physical impacts of the disease, but HIV reduces their access to food. Efforts to provide nutrition care and support must account for and, where possible, directly address these access constraints.

Table 2 shows examples of how HIV can negatively affect the productive factors that underlie food security.

**Table 2. Effects of HIV on rural livelihoods and productive resources underlying food security**

Type of resource	Effects of HIV on resources
Labor	<ul style="list-style-type: none"> <li>• Morbidity interrupts work and reduces productivity.</li> <li>• Morbidity reduces other important household and care activities.</li> <li>• Available labor is not consistent with needs based on traditional division of labor.</li> <li>• Seasonal fluctuations in labor and production are exacerbated.</li> <li>• Caregiving requirements escalate and become overwhelming.</li> <li>• An increase in the dependency ratio increases laborers' burden.</li> <li>• Migration for alternative work opportunities increases.</li> <li>• Risky behaviors (e.g., transactional sex, prostitution, and child labor) increase.</li> <li>• Mortality permanently reduces the size of the labor force and the earning capacity of households.</li> </ul>
Cash	<ul style="list-style-type: none"> <li>• Purchased inputs (e.g., seed, fertilizer) decrease.</li> <li>• HIV -related health care expenditures replace household basic needs expenditures.</li> <li>• Less hired labor or animal traction rental reduces productivity.</li> <li>• School fees are unpaid, and children are withdrawn from school.</li> <li>• Cash demands mean more time devoted to earning cash income at the expense of other activities.</li> <li>• More agricultural output is sold than stored for future consumption.</li> <li>• Poorer-quality foods are substituted for better-quality foods.</li> <li>• Some or all household members reduce their food consumption.</li> <li>• Inadequate diets increase vulnerability to other food-security shocks.</li> </ul>
Assets	<ul style="list-style-type: none"> <li>• HIV-related expenses deplete savings and liquid assets.</li> <li>• Household assets (e.g., roofing, household items) are not maintained or replaced when needed.</li> <li>• Productive assets (e.g., irrigation system and grain storage) are not maintained.</li> <li>• Household assets are sold.</li> <li>• Productive assets (e.g., draught animals, plows) are sold.</li> <li>• Asset divestment increases vulnerability to other food-security shocks such as drought.</li> <li>▪ Asset divestment constrains recovery from food-security shocks (e.g., drought, conflict).</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Children have less opportunity to learn from their parents.</li> <li>• School absenteeism increases as children assume more responsibilities.</li> <li>• Children are forced to leave school because of non-payment of fees and new demands on their time.</li> <li>• Survivors assume new responsibilities but lack appropriate skills, and social norms hinder change.</li> <li>• Traditional agricultural practices and knowledge are not appropriate to the HIV context.</li> <li>• Current livelihood is no longer feasible or lucrative, but alternative skills are limited.</li> <li>• Migration increases as people look for new livelihood opportunities.</li> </ul>

Type of resource	Effects of HIV on resources
<b>Local institutions</b>	<ul style="list-style-type: none"> <li>• Traditional safety nets (e.g., community grain storage) become overburdened.</li> <li>• Savings club and group lending scheme defaults stress and devastate local credit options.</li> <li>• Traditional customs governing remittances are overburdened or break down.</li> <li>• Traditional child adoption customs are overburdened.</li> <li>• People cannot fulfill customary roles related to other food-security shocks such as drought or fires.</li> <li>• Traditions are adjusted or transformed (e.g., elimination of funeral rights).</li> <li>• Land tenure is inadequate to address needs (e.g., of women, orphans, and other survivors).</li> <li>• Households dissolve.</li> </ul>

Source: Bonnard 2002.

### Effects of food insecurity on HIV (slide 14)

Food insecurity has the following effects on HIV:

- Can limit the quantity and quality of food available and accessible to the household
- Can increase vulnerability to illness and infection
- Can lead people to adopt livelihood strategies that increase risk of HIV infection. For example, commercial or transactional sex to earn money for food and basic necessities increase the risk of infection to the individuals, their spouses, and future children. Members of food-insecure households may be more likely to work as migrant laborers to increase income, which may lead to situations where risky behavior is more prevalent.

### Care and support in a food-insecure context (slide 15)

Nutrition care and support through counseling can be organized into **assessment**, **actions**, and **follow-up**. Nutrition care and support in a food- insecure context is contains the same three components but may have unique aspects, as outlined in the next three slides.

**Handout 7.1. Steps to Address Food Security in Nutrition Care and Support** outlines steps to integrate food security issues into nutrition care and support counseling.

**Exercise 2.** This two-person role-play addresses household food security. Ask one student to play the client and another to role-play the counselor. A 35-year-old HIV-positive widow has received nutrition care and support counseling from a health center for the past 3 months. She shows knowledge and awareness of her nutrition needs, but her health and nutritional status has shown no improvement during this time; in fact, she has lost 2 kg. 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 suggested 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 does the woman have? How can she be supported to pursue them?
2. Do psychosocial factors affect the woman's dietary habits?
3. What should be recommended for her children's diet and nutrition? If she gives most of the food available to her to her children, eating very little herself, how should a counselor deal with this?
4. Can the counselor help ease the family constraints?
5. What can the community do in this situation? Are any specific community services feasible?

What types of further education may be needed? For whom?

**Exercise 3.** This three-person role-play addresses food security and managing drug-food interactions. Students play the roles of a doctor, a father, and his daughter. The doctor is checking the status of a man with HIV who has recently begun antiretroviral therapy (ART). 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 dietary recommendations to address the side effects, but the father and daughter say they do not have regular access to the foods the doctor recommends. 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, cooking techniques) would be useful for the doctor?
3. Can meal planning alleviate some of these constraints? By adjusting food expenditures? By referrals?
4. What role can the daughter play in this process?
5. What information should the doctor give the man? The daughter?
6. What system would help ensure that the man does not miss any doses?
7. What other factors (e.g., local acceptability, energy needs, food preparation, dietary behaviors) should be considered in designing the food package?
2. What system can be established for referrals?
3. Will referrals and targeting of PLHIV increase stigma? How can this be addressed?
4. Can nutrition care and support counseling or follow-up be integrated into the program? How?

### **Assessment of food insecurity factors (slide 16)**

The first step in nutrition care and support is assessment. In a food insecure context assessment includes the following:

- **Assess nutritional status and practices.** Determine the client's nutrition needs based on nutritional status, progression of the disease, opportunistic infections, symptoms, and medication and assess current food and nutrition practices and the factors influencing these practices.
- **Assess factors that prevent adoption of improved practices, including food access and availability and knowledge.** 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, and food taboos such as those for pregnant women can keep people from adopting improved practices. Identifying these constraints requires discussing general household issues such as food provisions from all sources, kitchen gardens, employment and sources of income, intra-household food sharing, and nutritional status of other household members. Information on factors underlying the client's food and nutrition choices

should be used to target counseling and identify other needed services. Education and counseling can address gaps in knowledge.

- **Identify coping strategies and assess their negative effects, if any.**

Understanding a household's coping strategies can give a clearer picture of the client's situation, identify gaps, tailor further counseling, and advise against strategies with more negative than positive effects. Coping strategies can be identified through questions such as the following:

- Have you changed the types of foods you eat daily (e.g., less preferred foods)?
- Have you reduced your food intake recently?
- Do you skip meals because there isn't enough food available or so others in the household have more to eat?
- Have you been getting food from family or neighbors or other sources outside your household?
- What support networks exist and how adequate are they?
- Have you reduced spending on other items to buy enough food for the household?

Clients may be able to improve existing coping strategies to better address nutrition needs. Households that produce tubers and cereals can allocate space to grow vegetables rich in micronutrients that can complement high-energy foods to meet specific micronutrient needs. For example, orange-fleshed sweet potatoes, green leafy vegetables, and various indigenous vegetables can prevent or reduce vitamin A deficiency. Eating foods rich in vitamin C iron enhances the bioavailability of iron from other foods. Legumes can help meet protein needs.

Understanding nutrition needs and food security constraints should make it possible to identify foods and nutrients clients are not eating in sufficient quantities because of poor access and availability. An effective assessment identifies gaps and causes of sub-optimal consumption. When low consumption is caused by lack of knowledge or difficulty eating as a result of HIV-related symptoms, education and suggestions of new dietary practices to ease symptoms may help improved intake. In other situations poor food availability or access may be the cause.

Assessments should be client specific. Individual nutrition 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. PLHIV 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. They 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.

### **Actions to improve food security (slide 17)**

The results of the assessment should help service providers determine the most appropriate course of action for the individual client. Good nutrition care and support should use the results of the assessment to select actions to promote and guide

adoption of recommendations within a household's food security constraints. Above all, recommendations need to be practical and feasible.

- **Counsel on doable actions to improve food consumption and dietary choices at the household level.** Identifying optimal feasible alternatives requires knowing the client's specific nutrition needs and food security constraints, as well as what foods are locally available. When recommended foods are not available or accessible for economic, seasonal, or other reasons, locally available substitutes should be found. In some cases this means choosing second-best or third-best options that do not provide optimal levels of nutrients but still provide more than the existing diet.
- **Address illnesses and infections that lead to poor nutritional status.** Other sessions in this manual address the vicious cycle of the relationship between HIV and nutrition. Addressing illnesses and infections can affect food security by increasing food consumption and the ability to continue productive activities that result in better food security.
- **Counsel on how to improve food and water safety and sanitation.**
- **Provide referrals to therapeutic feeding as needed.**
- **Link with and refer to organizations that provide food assistance, micronutrient supplementation, etc.** Service providers should be aware of food assistance, micronutrient supplementation, and other nutrition programs and services in their catchment areas and refer clients to these programs as appropriate. The eligibility criteria for these other programs must be clear so that the service provider can make accurate referrals. Sometimes a formal link must be established between health services and other programs to facilitate uptake of referrals; in other cases, informal information exchange may suffice.
- **Link with and refer to organizations that support food security and livelihood programming.** Another way to help clients improve food availability and access is to link them with services that address household livelihoods and food security.

The interaction between HIV and food security has been recognized relatively recently, and interventions to address this issue continue to emerge. While data on the outcomes of these interventions is still being collected and analyzed, much can be learned from general food security interventions for programming in the HIV context. The following interventions that can be considered:

- **Livelihood training**, especially for non-traditional workers and older OVC, can improve long-term household food security. This might include teaching a young adult a trade such as carpentry or baking that will help them augment household resources. The Food and Agricultural Organization (FAO) has experience implementing Junior Farmer Field Schools, which teach OVC about agriculture and livestock production, equip them with business entrepreneurial skills, and promote life skills and gender equality.

- **Labor-saving practices and technology** are appropriate program responses where morbidity, mortality, and care-giving related to HIV cause labor shortages and place excess burdens on time. Labor-saving practices may include cultivating less labor-intensive crops (e.g., crops that do not require tillage), using fuel-efficient stoves, installing water pumps, and sharing child care. A USAID project in Zimbabwe has developed a drip irrigation system for HIV-affected households that reduces the labor needed for irrigation by 50 percent.
- **Agricultural extension** may need strengthening to ensure that new agricultural practices and technologies are adequately introduced and reach non-traditional groups such as women and OVC.
- **Microfinance** can help households maintain or purchase productive assets, smooth income flow, and meet key food, health care, and other basic expenditures. Small loans can enable affected households to increase income, savings, and food access, but microfinance interventions may need to be designed with special features in the context of HIV to deal with challenges such as ill borrowers. A microfinance program in Zimbabwe instituted a mandatory insurance fee to cover the cost of outstanding loans from borrowers who die (Horizons 2002).
- **Food assistance** can help address food insecurity caused by HIV, but it must be programmed so it does not create disincentives for local food production or dependency on food assistance. Planners of food assistance interventions should use food resources to build community and household coping capacities in addition to meeting short-term food needs. Food assistance can directly increase food-insecure households' access to food through safety net programs, support agricultural activities through food-for-work programs, support vocational training and income-generating activities, and encourage OVC school attendance, which can strengthen long-term food security.
- **Building the capacity of networks** and community support organizations can help address the erosion of institutions, support linkages with services, and maintain knowledge. Often networks and organizations exist but are weakened by the spread of HIV 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.

**Exercise 4.** 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 to role-play 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-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 referring clients from your program for food assistance. You also want to discuss the types of food assistance the program provides to encourage foods most needed by HIV-infected people. Discuss the following questions and issues.

5. What results and points of agreement should you leave the meeting with?
6. What are the criteria for admission to the program? Can the criteria incorporate nutritional status? If so, how?
7. Can the foods offered by the food aid program be modified to better address the nutrition needs of PLHIV? How can this be done given the foods available? What other factors (e.g., local acceptability, energy needs, food preparation, dietary behaviors) should be considered in designing the food package?
8. What system can be established for referrals?
9. Will referrals and targeting of PLHIV increase stigma? How can this be addressed?
10. Can nutrition care and support counseling or follow-up be integrated into the program? How?

#### **Follow-up** (slide 18)

Follow-up to nutrition counseling includes assessing how many recommended practices the client followed, what changes are evident in health and nutritional status, 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 nutrition care and support, and what further measures are needed to address these issues and strengthen the capacity for nutrition care and support.

Follow-up may indicate a need for new approaches. For example, if a client shows strong knowledge of nutrition 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, prioritizing food needs to facilitate optimal food expenditure and diet within the household budget, or referral to safety net resources or services to strengthen livelihoods.

#### **Conclusions** (slide 19)

The capacity to implement effective nutrition care and support depends heavily on household food security. Information on optimal nutrition practices is often not enough to enable PLHIV to improve their health and nutritional status. Service providers 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 other sessions of this manual focus on specific dimensions of nutrition care and support. Food insecurity undermines successful implementation of each of these dimensions. Each nutrition 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 and thus improved nutrition care and support for PLHIV.

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## **Handout 7.1. Steps to Address Food Security in Nutrition 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 9.

### 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.*

## Session 7: Food Security and Nutrition Care and Support of People Living with HIV



## Purpose

To introduce the constraints posed by food insecurity on nutrition care and support for PLHIV and discuss approaches to nutrition care and support in food-insecure contexts

2

## Learning Objectives

- Define food security.
- Explain factors that influence food security.
- Describe the relationship between HIV and food security.
- Describe approaches to optimize nutrition care in food-insecure contexts.

3

## Session Outline

- Components of food security
- Food insecurity and HIV/AIDS
- Food security constraints for nutrition care and support
- Implementation of nutrition care and support in food-insecure contexts

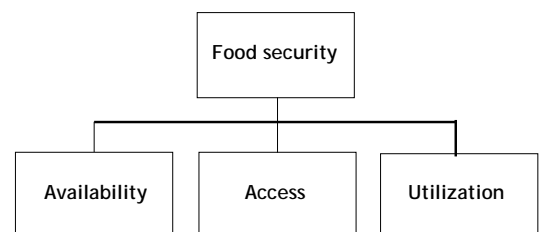
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## Definition of Food Security

- Food insecurity occurs when people lack continued access to sufficient quantity and quality of food.
- USAID definition: 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.

5

## Components of Food Security



6

## Factors That Affect Food Security

- Individual constraints (knowledge, habits, symptoms)
- Household constraints (production, purchasing power, intra-household distribution)
- External constraints (stigma, price, market fluctuations)
- External shocks (droughts, floods, conflict)

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## Food Insecurity and HIV/AIDS

- Food insecurity often prevents PLHIV from meeting their nutritional requirements.
- HIV can cause and worsen food insecurity.
- Food insecurity can increase vulnerability to HIV infection and the impact of HIV.
- Service providers can offer more effective nutrition care and support when they understand the food and nutrition situation.

8

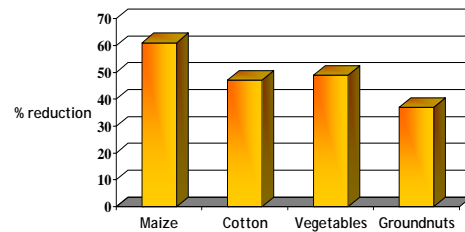
## Scope of the Problem

- Over 22.5 million PLHIV in sub-Saharan Africa at the end of 2007 (UNAIDS)
- HIV prevalence of > 10% in 16 countries
- Many worst-affected countries are already food insecure.

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## Effect of Death on Crop Production

Crop reduction in households after AIDS deaths, Kwaramba, Zimbabwe, 1997



Source: UNAIDS 2000: Data from Kwaramba 1997

10

## Impact of HIV/AIDS on Income, Côte d'Ivoire



Source: UNAIDS, Alban and Guinness, ADF 2000. Simulation based on data from Bechu, Delcroix, and Guillaume 1997.

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## Dynamic between HIV and Food Security

- HIV/AIDS is a long-term phenomenon.
- HIV mainly infects people in their most productive years.
- HIV creates additional nutritional needs.
- Stigma is associated with HIV.
- HIV occurs on a larger scale (national, regional, continental) than other shocks.
- Food insecurity may increase risky behaviors.

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## Effects of HIV/AIDS on Food Availability and Access

- Reduces labor availability
- Decreases income, depletes savings, and leads to sale or loss of productive assets
- Depletes food reserves
- Interrupts knowledge transfers
- Weakens safety nets and support systems

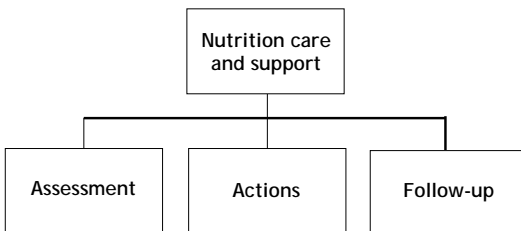
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## Effects of Food Insecurity on HIV/AIDS

- Limits quantity and quality of food available and accessible to households
- Increases vulnerability to illness and infection
- May lead to livelihood strategies that increase risk of infection

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## Care and Support in a Food-Insecure Context



15

## Assessment of Food Insecurity Factors

- Assess nutritional status and practices.
- Assess factors that prevent adoption of improved practices, including food access, availability, and knowledge.
- Identify coping strategies and assess negative effects, if any, of these strategies.

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## Actions to Improve Food Security

- Counsel on doable actions to improve household food consumption and dietary choices.
- Address illnesses and infections that worsen nutritional status.
- Counsel on improving food and water safety and sanitation.
- Refer to therapeutic feeding as needed.
- Link with and refer to organizations that provide food assistance, micronutrient supplementation, food security, and livelihood programming.

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## Follow-up

- Reassess the client's situation.
- Modify or adjust services as needed.
- Determine whether further measures are needed to enable nutrition care and support.
- Continue to identify new approaches and opportunities for linkages and referrals.

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## Conclusions

- Information and knowledge are not enough for effective nutrition care and support without household food security.
- Service providers need to assess client food security, identify feasible options, and help address food insecurity.
- Food insecurity affects recommendations and options for all other topics in this manual.

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