# HIV/AIDS and nutrition: helping families and communities to cope

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Although human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) is recognized predominantly as a health problem, the epidemic has multiple social and economic dimensions and implications since it affects adults in their most productive years of life. A health approach alone is not sufficient to prevent the spread of the disease or to mitigate its impact on both individuals and society. The spread of HIV/AIDS has become a major constraint to development in affected areas and must, therefore, become a major consideration in the programme planning of governments and agencies. The detrimental impact of the HIV/AIDS epidemic on nutrition and household food security in affected areas requires attention, and strategies to address these problems should be incorporated in programme planning.

The interaction between HIV/AIDS and nutrition can basically be seen from two perspectives:

- the *biological* perspective, which is the association between nutritional status and risk of infection, as well as the relationship of nutritional status and the evolution of the disease;
- the *socio-economic* perspective, which considers the consequences of the disease for the food and nutrition situation of affected households and communities through lack of food, insufficient care and lack of time to ensure hygiene.

## HIV/AIDS AND NUTRITIONAL STATUS

Biologically, there are multiple relations between HIV/AIDS and nutritional status. Research shows that the chance of infection with the HIV virus might be reduced in individuals who have good nutritional status, with micronutrients and, especially, vitamin A playing significant roles (ACC/SCN, 1998a). At the same time, the onset of the disease and even death might be delayed in well-nourished HIV-positive individuals (ACC/SCN, 1998a).

Because the virus damages the immune system, AIDS patients are vulnerable to multiple infections. A diet rich in protein, energy and micronutrients, especially vitamin A, contributes to resistance to opportunistic infections in AIDS patients (Friis, 1998). Higher nutrient intakes are required when the patient suffers from a secondary disease. When diarrhoea occurs, extra liquids are required to restore the balance.

In these vulnerable individuals, the prevention of food-borne illnesses is extremely important as these would further increase the patients' needs and, at the same time, reduce their absorption of nutrients. Hygienic food handling and access to safe foods are, therefore, imperative.

The discussion of whether or not breastfeeding by HIV-positive mothers should be encouraged is still ongoing: mother-to-child transmission (or vertical transmission) of the virus through breastfeeding has been observed, the risk of such transmission being higher among mothers with AIDS than among HIV-positive mothers (Preble, 1998). In a recent study, exclusive breastfeeding appeared to protect against the transmission of HIV, with a higher risk in partial breastfeeding (Coutsoudis, 1999). Infants of mothers who have an adequate vitamin A status might have a reduced risk of vertical transmission (Friis, 1998). Given the many advantages of breastfeeding and the risks commonly associated with the use of breastmilk substitutes, one clear recommendation on breastfeeding by HIV-positive mothers cannot be made for all developing countries. This comparison of the risks of HIV/AIDS transmission from nursing mothers with the risks of bottle-feeding has led to the development of different national policies. The World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and the Joint United Nations Programme on AIDS (UNAIDS) support the right of HIV-infected women to choose safe alternatives to breastfeeding, based on full information (ACC/SCN, 1998b).

## IMPACT OF HIV/AIDS ON HOUSEHOLD FOOD SECURITY AND NUTRITION

HIV/AIDS has a detrimental impact on household food security and nutrition in endemic areas. Household food security is defined as the ability of the household to secure, either from its own production or through purchases, adequate food to meet the dietary needs of its members so that they can lead a healthy and active life.


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*A grandmother sells milk to care for her 17 orphaned grandchildren*

In HIV/AIDS-affected households, problems start as soon as the first adult becomes sick. This results in increased spending for health care, decreased ability to carry out work and higher demands on time for care. Children might be forced to discontinue their schooling as the household needs their help and can no longer afford the school expenses. Eventually the AIDS patient dies, additional expenditures are made for the funeral and the productive capacity of the household is permanently reduced. Socio-cultural practices may further aggravate the problems of the household, for example, when the surviving spouse cannot maintain access to the property of the deceased.

In the next stage the patient's partner may become sick, problems increase and accumulate and the downward spiral accelerates. The household may find itself without cash reserves; often it becomes indebted and is forced to sell livestock and other productive resources. Traditional solidarity systems may wear out, and the family may progressively slide into destitution. Eventually, the household is reduced to elderly people and children. Essential skills are lost to the family and the community as active adults die.

Households affected by AIDS are at risk nutritionally: access to food is difficult; demand for care soars, together with time constraints; and it becomes increasingly difficult to preserve health.

The Figure shows a visualization model of the impact of HIV/AIDS on the food and nutrition situation of a household. The model can facilitate the identification of interventions likely to prevent or address specific constraints in a given situation.

The impact of the epidemic on food and agriculture is clearly related to people's livelihoods and will vary according to the different ecological zones, farming systems and stage of the epidemic. It may result in a shift from cash crops to less labour-intensive food crops, to more basic and less varied food production or to a reduction of productivity and cash income with corresponding adverse effects on household food security (FAO, 1995). Research carried out in Uganda showed that food insecurity and malnutrition (rather than medical treatment and drugs) were foremost among the immediate problems faced by female-headed AIDS-affected households (Topouzis and Hemrich, 1996). This further aggravates the situation, as good nutrition is of great importance to the victims of the AIDS epidemic as well as to children and pregnant and lactating women.

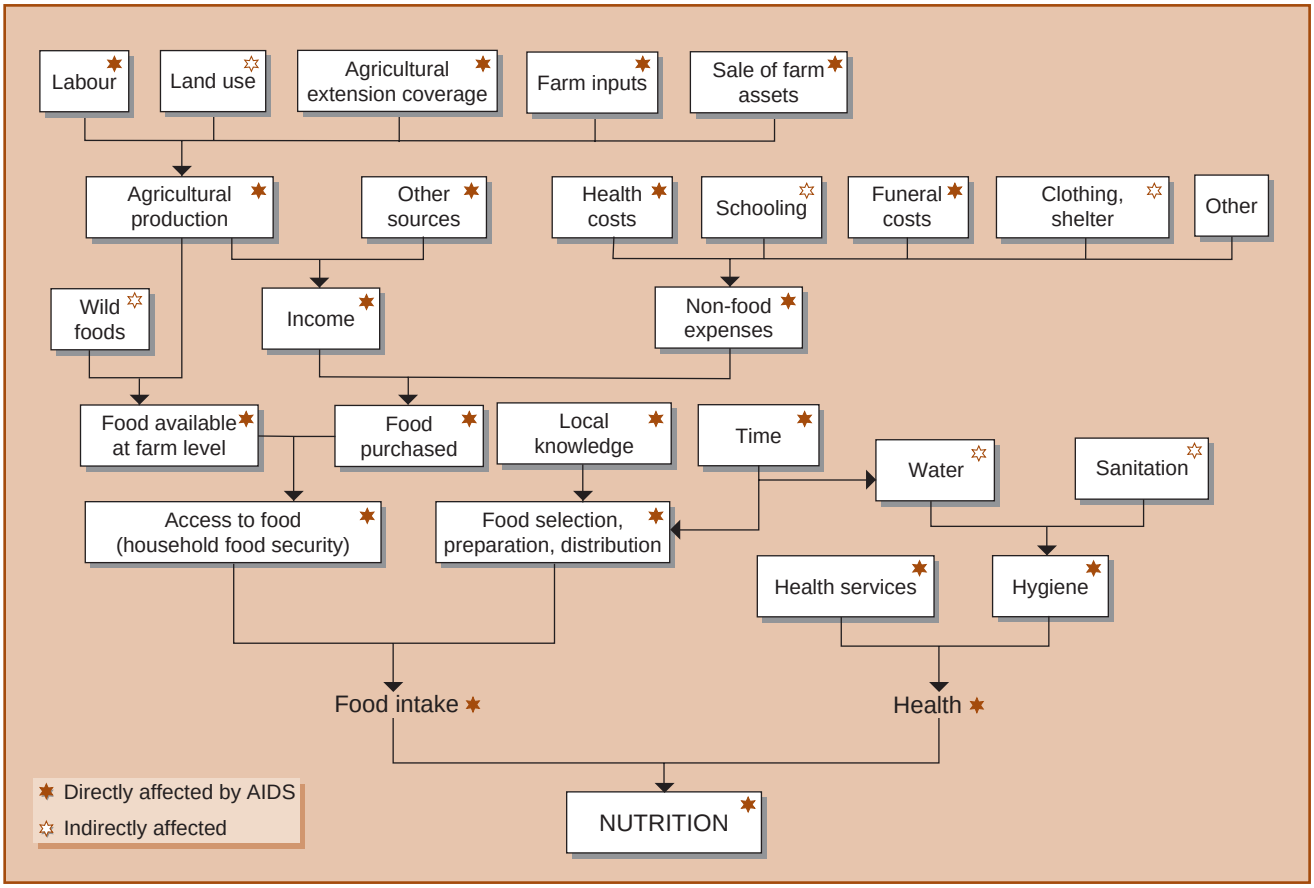
## IMPACT ON SERVICES AND INSTITUTIONS

The epidemic takes a heavy toll on national development staff. The health, education and agriculture extension services usually provided to the population will be disrupted as the staff operating these activities become ill and die. Provision of care to sick family members, attendance at funerals and observation of mourning times further reduce the staff's productive time. In Uganda, this has led to an informal reduction of the length of the working week (Topouzis, 1998). This disruption in services further aggravates the local situation and undermines households' capacity to cope with the illness.

## HIV/AIDS ISSUES IN NUTRITION AND AGRICULTURAL DEVELOPMENT STRATEGIES

The HIV/AIDS epidemic and strategies for mitigating its impact are often not given specific attention by rural development workers and/or agriculture project staff. This frequently leads to further marginalization and destitution of affected households.

With an estimated 16 000 new infections per day, worldwide, and the rapid decreases in life expectancy in the most affected countries, the AIDS epidemic should be a primary focus of development assistance in affected countries (ACC/SCN, 1998a). For organizations working in agriculture, the natural entry point to mitigate the impact of the epidemic is through improving household food security. Knowledge of the local dynamics among HIV/AIDS, food insecurity and malnutrition, including households' coping strategies (to offset labour shortages, decline in income, etc.) will allow projects




***A model to help visualize the impact of HIV/AIDS on household food security and nutrition***

to identify and design activities according to existing needs and constraints and help to mitigate the impact of the epidemic.

### Targeting affected households

Projects operating in HIV/AIDS endemic areas do not always reach the households struck by the epidemic. In such areas, HIV/AIDS-affected households should systematically be included in the target groups of household food security and nutrition projects. These projects need to be able to identify where the most affected communities are located and which households are living with HIV/AIDS. Project activities should not obstruct the provision of care to the sick, infants and young children, including orphans, and special activities might need to be developed to support these. Training and support for youth will be essential to the survival of the household as a whole.

### Raising awareness of field staff

In many countries, HIV/AIDS is not openly discussed. Raising awareness among field staff about the disease and prevention methods is the first step to be taken. Before HIV/AIDS considerations can be addressed, staff need to be trained to

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***The young and the elderly manage alone when AIDS strikes a family***

understand the impact of HIV/AIDS on food security and the specific constraints suffered by affected households. Field staff from all technical and institutional backgrounds need to be trained on how to identify affected households and help them to find solutions to the constraints they face.

### Developing strategies with the communities

The participatory nutrition approach promoted by FAO's Food and Nutrition Division includes the joint development of local household food and nutrition strategies by the different stakeholders. In HIV/AIDS-affected areas, organizing local planning and training workshops to discuss local food security and nutrition problems among various local groups and institutions would help identify possible interventions that could mitigate the negative impact of the epidemic.

Participatory appraisal of the impact of HIV/AIDS on food security in a given community can help identify affected households and clarify local dynamics among HIV/AIDS, food insecurity and malnutrition, including households' coping strategies.

Strategies to improve the coping mechanisms of affected households might include activities aimed at:

- reorienting food production to facilitate access to a nutritious diet;
- seeking alternative income-generating opportunities;
- decreasing people's workload through labour-saving technologies and improving access to labour and resources through gender sensitization and the promotion of more gender-balanced extension approaches;
- improving community organization for the exchange of labour;
- developing community-based care strategies for patients and small children, including orphans;
- encouraging HIV-positive and sick patients to teach their skills and knowledge to others and assisting households to plan for the future;
- developing appropriate communication strategies to prevent the marginalization of affected households and helping the community to deal with the epidemic.

### Nutrition education

All field staff, in particular agricultural extension workers, should be informed of the beneficial impact of good nutritional status, both on the prevention of HIV infection and on the course of the disease, so that they can provide advice to families and reorient their own activities accordingly. Nutrition education and communication strategies in the affected areas should include appropriate dietary recommendations for individuals suffering from the disease, taking into account local food sources and production systems.

#### WHAT AIDS MEANS TO A FAMILY

In the Luapula Valley of Zambia, the Kasuba family has always made a living through subsistence food production. Now that the 42-year-old mother is sick with AIDS, the family is going through a very difficult period. Since she was the person who grew beans and groundnuts, these foods have disappeared from the family's diet. Since she was responsible for planting, weeding, harvesting, storage and processing of food, the other family members have had to find new ways to obtain food. They cannot earn money so they work for other people in exchange for food, barter some of it to obtain other food items and beg meals from other homes. In order to pay for traditional medicines and to transport the patient from one herbalist to the other, they have progressively had to sell livestock, seeds, tools, clothes and cooking utensils.

Ms Kasuba used to process the food and carry out most domestic activities. Now her husband and children have had to take over the tasks of fetching water and fuelwood and they are also spending a lot of time caring for her. As a result, they only cook once a day, usually preparing a meal of *nshima* from cassava flour with cassava leaf sauce. There is very little diversity in their diet as Ms Kasuba was the one who knew how to mix different foods. The older children have stopped going to school and try to take care of the younger ones. There is no money to pay for visits to the health centre.

*Source:* G. Simuyemba and E. Phiri, Empowerment Officer and National Project Coordinator, respectively, for the project Improving Household Food Security and Nutrition in the Luapula Valley, Zambia, personal communication.

Collaboration with local male and female leaders (e.g. traditional and religious leaders) needs to be sought.

### Transfer of knowledge and skills

The training of staff and community members and the timely transfer of essential skills are needed to mitigate the destructive impact on households and institutions. If required, and where possible, individuals who already suffer from the disease should be involved in this process.

## CONCLUSIONS

Since nutrition requires an integrated approach to household food security, health and care, it forms a logical entry point for assisting affected communities in coping with the epidemic. Several key points should be considered:

- Appropriate nutrition education is required as well as the transfer of knowledge and skills to prevent their loss to the household and the wider community.
- Participatory techniques are fundamental in the development of a comprehensive understanding of the specific constraints that HIV/AIDS-affected communities are facing, as well as in the design of adequate responses.

- Since behavioural change is needed for effective prevention and mitigation of the epidemic, and since HIV/AIDS issues are highly sensitive, the development of appropriate communication strategies is crucial.
- The inclusion of HIV/AIDS considerations into agricultural and nutrition strategies is a relatively new field. Cross-sectoral and interinstitutional collaboration is required to develop appropriate strategies through operation research and documentation and the evaluation of experiences. ◆

## REFERENCES

**ACC/SCN.** 1998a. Overview to the feature: Nutrition and HIV/AIDS. *SCN News*, 17: 3-4.

**ACC/SCN.** 1998b. HIV and infant feeding. WHO/UNICEF/UNAIDS. *SCN News*, 17: 4-5.

**Coutsoudis, A.** 1999. Influence of infant feeding patterns on early mother-to-child transmission of HIV-1 in Durban, South Africa: a prospective cohort study. *The Lancet*, August 1999.

**FAO.** 1995. *The effects of HIV/AIDS on farming systems in eastern Africa.* Rome.

**Friis, H.** 1998. The possible role of micronutrients in HIV infection. *SCN News*, 17: 11-12.

**Preble, E.A.** 1998. HIV and infant feeding; a chronology of research and policy advances and their implications for programmes. Washington, DC, Linkages Project/SARA.

**Topouzis, D.** 1998. The impact of HIV/AIDS on rural food security. *SCN News*, 17: 20-22.

**Topouzis, D. & Hemrich, G.** 1996 *The socio-economic impact of HIV/AIDS on rural families in Uganda*. UNDP Discussion Paper No. 6. New York, UNDP. ◆

## Summary/Résumé/Resumen


### HIV/AIDS and nutrition: helping families and communities to cope

Although human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) is viewed primarily as a health problem, a health approach alone is not sufficient to prevent the spread of the disease and mitigate its impact on both individuals and society. Commonly, rural development workers have not given attention to HIV/AIDS, leading to marginalization and destitution of affected households. With an estimated 16 000 new infections per day worldwide, the AIDS epidemic should be a primary focus of development assistance in affected countries.

The interaction between HIV/AIDS and nutrition can be seen from biological and socio-economic perspectives. Biologically, there are multiple relations between HIV/AIDS and nutritional status: good nutritional status might reduce the chances of infection or extend the lives of patients. Improving nutrition requires an integrated approach to household food security, health and care.

In communities affected by HIV/AIDS, nutrition education and the timely transfer of knowledge and skills to prevent their loss to the household and the wider community are required. Participatory techniques are essential to forming an understanding of the specific constraints HIV/AIDS-affected communities are facing and to designing adequate responses. Since HIV/AIDS issues are highly sensitive and require behavioural change, appropriate communication strategies are crucial.

The inclusion of HIV/AIDS considerations into agricultural and nutrition strategies is relatively new; cross-sectoral and interinstitutional collaboration is required in order to develop appropriate strategies, through operation research and documentation and evaluation of experiences.

### VIH/SIDA et nutrition: aider les familles et les communautés à faire front

Le VIH/SIDA (virus de l'immunodéficience humaine/syndrome d'immunodéficience acquise) est considéré avant tout comme un problème de santé, mais l'approche sanitaire à elle seule n'est pas suffisante pour empêcher la diffusion de la maladie et atténuer ses effets sur l´individu et sur la société. En général, les agents de développement rural n´ont pas prêté beaucoup d'attention au VIH/SIDA, ce qui a entraîné la marginalisation et la paupérisation des ménages touchés. Si l'on estime qu'il y a chaque jour 16 000 nouveaux cas dans le monde, l'épidémie de SIDA devrait être une préoccupation essentielle de l´aide au développement dans les pays touchés.

Les interactions entre le VIH/SIDA et la nutrition sont manifestes des points de vue biologiques et socioéconomiques. Sur le plan biologique, il y a de multiples relations entre le VIH/SIDA et l´état nutritionnel: un bon état nutritionnel peut réduire les chances d´infection et prolonger la vie des patients. L´amélioration de la nutrition suppose une démarche intégrée visant la sécurité alimentaire, la santé et les soins à l'intention des ménages. Dans les communautés affectées par le VIH/SIDA, l´éducation nutritionnelle et le transfert rapide des connaissances et des compétences sont nécessaires pour éviter leur disparition, aux niveaux des ménages et de la communauté en général. Les techniques participatives sont essentielles pour développer une compréhension des obstacles spécifiques que connaissent les communautés touchées par le VIH/SIDA, et il faut mettre au point des réponses adéquates. Comme les questions de VIH/SIDA sont extrêmement délicates et requièrent un changement des comportements, des stratégies de communication appropriées sont indispensables. L'inclusion de considérations liées au VIH/SIDA dans les stratégies agricoles et nutritionnelles est relativement nouvelle: une collaboration intersectorielle et interinstitutionnelle s'impose pour élaborer des stratégies appropriées, basées sur la recherche opérationnelle, une documentation approfondie et l´évaluation des expériences.

### VIH/SIDA y nutrición: ayuda a las familias y a las comunidades para afrontar el problema

Aunque se considera que el VIH/SIDA (virus de la inmunodeficiencia humana/síndrome de la inmunodeficiencia adquirida) es un problema esencialmente sanitario, no basta un mero enfoque sanitario para prevenir la propagación de la enfermedad y paliar sus repercusiones tanto en los individuos como en la sociedad. Generalmente, el personal de desarrollo rural no ha prestado atención al VIH/SIDA, lo cual ha provocado la marginalización y la caída en la indigencia de los hogares afectados. Teniendo en cuenta que se producen cada día en el mundo unos 16 000 nuevos casos de infección, la asistencia para el desarrollo debería centrarse principalmente en la epidemia del SIDA en los países afectados.

## Summary/Résumé/Resumen

La interacción entre el VIH/SIDA y la nutrición puede considerarse desde las perspectivas biológica y socioeconómica. Desde la perspectiva biológica hay múltiples relaciones entre el VIH/SIDA y el estado nutricional: un buen estado nutricional podría reducir las oportunidades de infección o alargar la vida de los pacientes. Para mejorar la nutrición se requiere un enfoque integrado de seguridad alimentaria familiar, salud y atención sanitaria.

En las comunidades afectadas por el VIH/SIDA, es menester fomentar la educación nutricional y la oportuna transferencia de conocimientos teóricos y prácticos, a fin de evitar su pérdida en las familias y en las comunidades. Las técnicas de participación son fundamentales para ayudar a comprender las limitaciones específicas con que tropiezan las comunidades afectadas por el VIH/SIDA, así como para aportar las respuestas adecuadas. Dado que las cuestiones relativas al VIH/SIDA son muy delicadas y requieren cambios en el comportamiento, es de crucial importancia aplicar estrategias apropiadas de comunicación.

La inclusión de consideraciones relativas al VIH/SIDA en las estrategias para la agricultura y la nutrición es relativamente nueva: se necesita la colaboración multisectorial e interinstitucional para desarrollar estrategias apropiadas, mediante investigaciones prácticas y una documentación y evaluación pormenorizadas de las experiencias. ♦