

Nutrition security is key in the fight against HIV and Aids



Providing people with access to sufficient food is one effective contribution when it comes to contain the spread of HIV/Aids.

Photo: Guenay Ulutunçok

Where hunger and poverty are most widespread is also where most of those affected by HIV and Aids live. Especially in sub-Saharan Africa both have reached alarming proportions. Although only 10 % of the world's population live here, it is home to 60 % of all HIV-infected people. Women and girls are particularly hard hit, making up almost 60 % of all those infected; in the 15 to 24 age group the figure rises to 75 %. At the same time women in many countries are particularly affected by nutrition insecurity.

Malnutrition on one hand and the spread and progression of HIV and Aids on the other are subject to a variety of interactions. It is an undisputed fact that HIV has grave effects on the socio-economic situation in developing countries – particularly in Africa – and can exacerbate poverty and hunger. However, as yet too little attention has been paid to the reverse effects, that is, the repercussions of malnutrition on the spread of HIV and Aids, with the result that the potential of nutrition security in the fight against the immune deficiency disease has been too little exploited to date.

Meanwhile a few governments and international organisations have acknowledged the importance of nutrition in the fight against HIV and Aids. For example, in 2004 the World Health Organization passed a resolution calling on member

states to incorporate the issue of nutrition in their strategies to combat HIV, but this is still far from being implemented across the board.

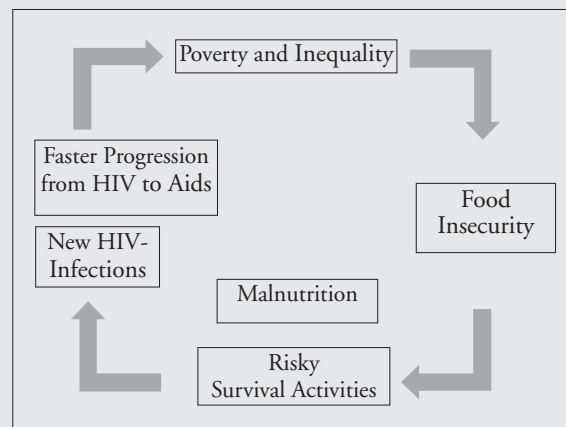
Food and nutrition security

The Food and Agriculture Organization of the United Nations (FAO) defines "*food security*" as a situation in which all people have, at all times, physical, social and economic access to sufficient, safe and nutritious food to satisfy their physiological needs and customary food preferences and to guarantee them an active and healthy life.

Food security is a necessary, but not a sufficient pre-condition to "*nutrition security*". The concept of nutrition security also includes the adequate utilisation of food as well as access to basic health services, clean drinking water, sanitation and sufficient welfare provision for all family members. Nutrition security has been achieved when all people exhibit an adequate nutritional status and are free of the symptoms of energy, protein, vitamin and mineral deficiencies.

As the term "nutrition security" is more comprehensive than "food security", it will be used throughout this text.

HIV/AIDS and food insecurity: a deadly relationship



Source: Save the Children/ Oxfam 2002

commissioned by

Link between nutrition and the health status of HIV-infected people

„In Malawi I met a group of HIV-positive women. As I always do when I meet people with HIV and Aids, but also when I meet other groups from the community, I asked them what was most important to them. Their answer was clear and unanimous: “Food”. Not nursing care, not Aids medication, not freedom from stigma – just food.“

Peter Piot, Executive Director of UNAIDS
(Joint United Nations programme on HIV/Aids)

Macronutrient and micronutrient deficiency in the diet of HIV-infected people increase the risk of opportunistic infections, that is, illnesses arising because of the HIV infection and the resulting immunodeficiency, and lead to higher mortality. “Nutrition is first aid for Aids”, the United Nations Food and Agriculture Organization concluded in 2002. With the right nutrition body weight and physical capabilities can be maintained and the body’s defences strengthened. The time span between infection with HIV and the onset of Aids is extended, and the need for treatment with antiretroviral drugs (ARVs) delayed. A good diet helps to prevent the illnesses and complications which often occur with HIV infection, for example, fungal diseases, herpes, lung infections, tuberculosis, diarrhoea, weight loss, oral infections, nausea and vomiting. In addition it can improve the infected person’s quality of life and enable them to lead a longer, more productive life.

It should also be taken into account that people infected with HIV have a much higher energy requirement.

Good nutrition is essential for successful antiretroviral treatment

Antiretroviral treatment can be especially successful when access to appropriate nutrition is guaranteed. Severely undernourished people who take antiretroviral drugs are six times more likely to die than well-nourished people. It is also more difficult for them to cope with the side effects of the drugs, and their bodies need longer to build up sufficient resistance to the infection.

HIV-infected people who have no access to food are often reluctant to start lifesaving drug treatment. Others stop taking ARVs if they have nothing to eat – an action that can quickly lead to resistance to the medication and its consequent ineffectiveness.

Increased risk of infection and transmission

Malnutrition can raise the risk of infection for two reasons: firstly, it causes the physical barriers (skin, mucous membrane) and the immune defences of the mucous membranes to be weakened, thereby affording better entry possibilities for the HI-Viruses. Secondly, malnutrition reduces the production of CD4 cells, a particular type of lymphocytes which coordinate the immune system and help other lymphocytes to fight infection. A deficiency in vitamins with antioxidant effects (vitamins A, C, E) and minerals (selenium, zinc) and a low CD4 cell count all contribute to a higher virus burden, i.e. to the number of HI-viruses in the blood plasma and other body fluids. Thus malnutrition increases the risk of transmission from one sexual partner to another and from a mother to her child.

Furthermore malnutrition can increase the risk of genital ulcers, sexually transmitted diseases and inflammation of the mammary glands, which again have been shown to increase the risk of an HIV infection. If no preventive measures are taken, around one third of babies born to HIV-positive mothers will be infected during pregnancy or childbirth, or by breastfeeding. Malnutrition impairs the mother’s immune status, one of the most important factors in influencing the risk of HIV transmission. In addition it should be taken into account that women require increased amounts of certain nutrients during pregnancy and while breastfeeding.

A healthy and balanced diet is an important prerequisite for the optimal function of the immune system. Access to sufficient nutrition can help to reduce the vulnerability of households and individuals to infection. Therefore nutrition and nutrition security should become absolutely integral to the combat strategies. However, it should always be emphasised that a balanced diet is not a substitute for conventional prevention methods or for antiretroviral drugs.

Apart from influencing the biological risk of infection, poverty and nutrition insecurity can lead to behaviour patterns and survival strategies which in turn add to the risk of an HIV infection. Potential risk behaviour such as prostitution or transactional sex often represents a way for women and for men to obtain the money which is lacking for food. Empirical studies have shown that poverty in developing countries is one of the main reasons why women go into prostitution.

Recommended action

Current efforts to make access to adequate nutrition central to the strategies for combating HIV should be intensified. Governments should make this issue a fundamental compo-

ment of their national health plans, support the development of appropriate capacities, mobilise resources and develop guidelines based on the latest research. Improving nutrition security and supporting “at risk” sections of the population within the framework of community development requires close cooperation and coordination between agriculture, health, education and social services.

• **Health sector:**

Nutritional information and advice should be integral to health services and information campaigns. In order to prevent stigmatisation and to promote health for all, the aim should be that information and advice always reach the whole population, and not just those infected with HIV. The promotion of a balanced diet for people with HIV and Aids must form part of a comprehensive support strategy at all phases of the infection. This also includes therapeutic nutrition and nutritional supplements for malnourished people. Short-term nutritional support should be coupled with measures to achieve sustainable nutrition security as well as income generation programmes. The causes of malnutrition must be tackled separately. To ensure that this happens the health sector needs to work closely with other sectors.

• **Rural development and agriculture:**

The countries worst affected by the pandemic are the ones most heavily dependent on small-scale farming. Nutritional security can be improved by promoting smallholder farming and agrobiodiversity, by cultivating low-maintenance nutrient-rich crops and by diversification (*cf. Issue Papers “Agrobiodiversity – the key to food security” and “Agrobiodiversity – an option for cushioning the consequences of HIV/Aids”*). In this way working the fields and harvesting can be more evenly spread throughout the year. Likewise vegetables and fruit grown in home and community gardens increase variety in the diet and provide essential nutrients. Local knowledge about agrobiodiversity, farming and nutrition should be documented and passed on to the younger generation.

Agricultural advice services already in existence should also offer educational programmes and dietary advice, as well as advice on the subject of HIV and Aids. Access to health services can be improved for the rural population through cooperation between agricultural extension services and health facilities together with the establishment of referral systems between the two. Microfinance initiatives and income generating activities are further possible ways of ameliorating the nutrition situation.

• **Education sector:**

School garden programmes teach practical skills and can also contribute to the growth of home gardens. In areas with high

Home gardens

In Namibia the German Federal Ministry for Economic Cooperation and Development (BMZ) is promoting nutritional advice and the planting of home gardens. On behalf of BMZ and in cooperation with the German Development Service (DED), GTZ is supporting the Namibian Ministry of Agriculture in mainstreaming HIV. Following pilot training schemes and a trial period in 2008, the staff of agricultural extension services as well as other disseminators (NGOs, support groups) are due to be trained. The creation of home gardens forms part of *Positive Living*, the holistic approach devised by David Patient and Neil Orr. David Patient has been living with HIV for more than 25 years and, together with his partner, has already run training courses on the *Positive Living* approach in several countries.



Keyhole garden in Lesotho.

Photo: Julia Sievers

With the financial support of the German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV), FAO carried out a multisectoral project in Malawi und Lesotho from 2004 to 2008. The aim was to improve the nutrition security of orphans and also children and their families who were affected by HIV and Aids. Amongst the schemes promoted were low-maintenance gardens in rural communities in Lesotho, known there as “keyhole gardens” on account of their shape. Once laid out, they require only minimal work, which can be carried out by the elderly, children and people in a weakened condition. These gardens can be watered with untreated water, need no inorganic fertiliser and are not very vulnerable to fluctuations in the weather. A keyhole garden produces enough vegetables for a family throughout the year. In addition training courses were offered on healthy diets and the preparation of nutrient-rich meals.



Pygmies preparing a meal in the traditional way: Local knowledge about nutrition should be documented and preserved.

Photo: Guenay Ulutunçok

levels of nutrition insecurity, school meals programmes can make attending school more appealing and improve the dietary condition of the pupils. Nutrition education and information on the connection between health and nutrition should form a core component of the curriculum.

Conclusion

The promotion of nutrition security can make an important contribution to the prevention of HIV and to the ameliora-

The “People, Food and Biodiversity” Issue Paper Series is designed for individuals and institutions engaged in development cooperation. Its aim is to:

- Arouse interest in the issues surrounding food and biodiversity and spotlight the various linkages.
- Showcase new topics and approaches.
- Rapidly and lucidly present proven approaches and experiences.
- Encourage and stimulate you to increasingly take up these issues in your work.

We look forward to your feedback, which helps us bring the series to its full potential.

Further issue papers are available at the website:
<http://www.gtz.de/de/themen/laendliche-entwicklung/10192.htm>

tion and maintenance of the health status of HIV-infected people. Therefore nutrition should take considerably higher priority in programmes to combat HIV than it has until now.

Social security: The Kalomo Pilot Scheme in Zambia – Social assistance with cash

Social safety nets can mitigate social and economic difficulties and thus improve access to adequate nourishment, as experiences in Zambia show. In 2004 the Zambian Ministry of Community Development and Social Services set up a pilot project with the support of GTZ – social assistance for more than 1000 households on very low incomes in the Kalomo district. Recipients of the cash were mainly households headed by elderly women caring for Aids orphans or children whose parents are chronically sick. The heads of the recipient households spent most of the cash transfer they received on the children, using it to buy food and other essential items. Some of them invested part of the money in seeds and paid a neighbour to plough their land ready for sowing, and some bought chickens or a goat. The Kalomo Pilot Scheme led to the extension of social cash transfer schemes to other districts as well. These transfers have now become a central component of Zambia’s social security strategy.

Further information:

Gillespie, Stewart and Kadiyala, Suneetha (2005): HIV/AIDS, food and nutrition security: from evidence to action. IFPRI, Washington D.C.

Stillwaggon, Eileen (2006): Reducing Environmental Risk to prevent HIV transmission in sub-Saharan Africa. Africa Policy Journal, Spring 2006, Vol. 1.

WHO (2005): Nutrition and HIV/AIDS. Report by the Secretariat. Genf.

Imprint

Published by:
Deutsche Gesellschaft für
Technische Zusammenarbeit (GTZ) GmbH – German Technical Cooperation
Sector project “People, Food and Biodiversity” (Division 45)

Dag-Hammarskjöld-Weg 1-5
D-65760 Eschborn, Germany
T +49 61 96 79-0
F +49 61 96 79-11 15
E info@gtz.de
I www.gtz.de

Contact: Dr. Marlis Lindecke (marlis.lindecke@gtz.de)
Contact person at the German Federal Ministry for Economic Cooperation and Development: Christoph Eichen
Text: Birgit Kubelka, Julia Sievers
Editing: Beate Wörner
Copy editors: Petra Ruth, Vera Greiner-Mann
Layout: Vera Greiner-Mann (ECO Consulting Group)
Printed by: Druckhaus Waitkewitsch, Alsfeld

Printed on 100 % recycled paper.

Eschborn, 2009

