The relationship between HIV and food security

by André Croucamp – July 2009
South Africa

> "The 2001 United Nations General Assembly Special Session *Declaration of Commitment on HIV/AIDS* and the 2006 *Political Declaration on HIV/AIDS*, both of which were endorsed by all United Nations Member States, recognize the need "to integrate food and nutritional support … with the goal that **all people at all times, will have access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life, as part of a comprehensive response to HIV/AIDS**". Governments have also unanimously endorsed separate Millennium Development Goals to reduce by half the proportion of people who suffer from hunger, and to halt and begin to reverse the spread of HIV by 2015 (Goals 1 and 6). In places such as sub-Saharan Africa, one goal cannot be reached independently of the other and will necessitate addressing HIV-specific issues surrounding food security and nutrition. All partners should support effective food security and nutrition interventions, as part of a comprehensive and multi-sectoral response to HIV."
> - UNAIDS policy brief on HIV, Food Security and Nutrition 2008

> "Malnutrition is a major drain on national accounts. One estimate places the cost of lost productivity due to malnutrition at 2 percent of GDP."
> - Shrimpton, R. 2002. A Strategic Plan for Nutrition in Mozambique. Helen Keller International, New York.

The Food and Agriculture Organization of the UN has observed that countries that have the highest levels of under-nutrition in their populations have achieved the least progress toward meeting health, education and other social and economic markers of the Millennium Development Goals.

Ill health leads to a loss of agricultural production.
▼ ▲
A loss of agricultural production leads to ill health.

With diseases like HIV, TB and Malaria this cycle can go beyond the burden of an ill individual or family and escalate to the level of an ill community.

HIV&AIDS can undermine the generation of income (ability to work), access to nutritious food and the production of food (agriculture). We must therefore speak about HIV, nutrition and food security as interconnected parts part of the same complex health and social challenge. We should probably add gender equality (in terms of control over resources and economic dependence) into the mix too.

Food and income insecurity can:

- increase risk of HIV transmission,
- decrease resistance to opportunistic infection in HIV positive persons,
- undermine access and adherence to treatment,
- make the social and economic impacts of the disease worse,
- increase gender inequality.

General conclusions from several comprehensive reviews of the impacts of the HIV/AIDS epidemic on the agricultural sector include:

- Increases in rural inequalities and deepening levels of poverty result from the disproportionately severe effects of HIV/AIDS on relatively poor households;
- Reductions in household assets and wealth due to HIV/AIDS lead to less capital-intensive cropping systems for severely affected communities and households;
- Deaths of rural women and men to HIV/AIDS undermine the transfer of knowledge of crop and livestock husbandry and marketing to subsequent generations of farmers;
- HIV/AIDS undermines nutritional status and health as diets worsen because of decreased food security, and also because of shifts to less nutritious but easier to cultivate crops, such as cassava.

taken from
Haddad, Lawrence and Stuart Gillespie. 2001. Effective Food and Nutrition Policy Responses to HIV/AIDS: What We Know and What We Need to Know. International Food Policy Research Institute (IFPRI), Washington DC. No. 112.
&
De Waal, Alex and Alan Whiteside. 2003. "New Variant Famine: AIDS and Food Crisis in Southern Africa." The Lancet Vol. 362, pp. 1234-37.

> "The key differentiating factor between HIV/AIDS-affected households and others within a particular category is that their capacity to cope with any shock is severely compromised by not having additional labour of their own to rely on."
> - Save the Children UK. 2002. Household Economy Assessment: Nyaminyami (Kariba Rural) District, Mashonaland West Province, Zimbabwe. Unpublished report, Save the Children, London.

This combination of ill health and a loss of agriculture are made worse by:

- environmental crises like global warming, loss of biodiversity, drought, crop diseases, invasive alien species, …
- gender discrimination increases the risks of disease contraction, lack of control over resources as well as lack of control over household spending and household productivity,
- lack of social cohesion as a result of conflict negatively affects health seeking behaviors and prevents the effective sharing of risk caused by droughts, epidemics or changes in market prices for commodities and labour,
- an increase in donor dependency further erodes self-sufficiency as well as community identity and pride,
- the fact that agriculture has become less of a means to sustain household livelihoods or to move out of poverty than it has been in the past, because of low commodity prices, inadequate marketing systems, and high prices for inputs,
- people embracing less labour intensive practices (like disciplines that ensure soil fertility) to access food and preserve livelihoods, leading to increased deforestation and loss of biodiversity like medicinal plants,
- the immediate impact on early childhood development and the long-term impact on the intellectual and physical capacity of those children to earn a living when they are older.

Here are some interesting perspectives on the last point:

> "Undernutrition accounts for about 35% of child deaths and 11% of the total global disease burden. Deficiencies of vitamin A and zinc were estimated to be responsible for 0·6 million and 0·4 million deaths, respectively."
> ('Maternal and child undernutrition: global and regional exposures and health consequences'. Prof Robert E Black et al. The Lancet, Volume 371, Issue 9608, Pages 243 - 260, 19 January 2008)

> "50–70% of the burden of diarrhoeal diseases, measles, malaria and lower respiratory infections in childhood is attributable to under-nutrition."
> (World Health Organisation. 2002. The World Health Report 2002: Reducing Risks, Promoting Healthy Life. WHO, Geneva.)

> “Poor fetal growth or stunting in the first two years of life can lead to irreversible damage, including shorter adult height, lower attained schooling, reduced adult income and decreased offspring birthweight for women. Children who are undernourished in the first two years of life, and who put on weight rapidly later in childhood and in adolescence are at a high risk of chronic diseases related to nutrition. The authors conclude by saying "...damage suffered in early life leads to permanent impairment, and might also affect future generations. Its prevention will probably bring about important health, educational, and economic benefits."
> (‘Maternal and child undernutrition: consequences for adult health and human capital’. Prof Cesar G Victora et al. *The Lancet*, Volume 371, Issue 9609, Pages 340 - 357, 26 January 2008)

> “Poor maternal nutrition and health can be considered the hub of the vicious cycle that passes hunger from one generation to the next – from malnourished mothers to low birth weight babies who are at high risk of stunting during childhood, of reduced working and earning capacity as adults and of giving birth to low-birth weight babies themselves…”
> - Food and Agriculture Organization of the United Nations. 2005. The State of Food Insecurity in the World 2005. FAO, Rome.

> “Among adolescents and adult women, under-nutrition is also associated with malnutrition in their children, adverse pregnancy outcomes and reduced work capacity. Also, the ability of women to contribute to actively take part in household spending decisions has a positive effect on their own and their children’s nutritional status.”
> - Smith, Lisa C., et al. 2003. The Importance of Women’s Status for Child Nutrition in Developing Countries, Research Report 131, IFPRI, Washington, DC.

WHO found that men and women experienced roughly equivalent losses due to non-communicable diseases. Men suffered greater losses than women due to injuries. Accidents and injury accounting for nearly 25 percent of men's disease burden in Sub-Saharan Africa. Women experience greater losses of time than men due to ill-health related to communicable diseases, maternal and perinatal health and nutritional conditions. These make up over 50 percent of all time lost due to premature death, disability and illness in Sub-Saharan Africa.
(World Health Organisation. 2002. The World Health Report 2002: Reducing Risks, Promoting Healthy Life. WHO, Geneva.)

Ten reasons for weak commitment to nutrition programs:

- Malnutrition is usually invisible to malnourished families and communities.
- Families and governments do not recognize the human and economic costs of malnutrition.
- Governments may not know there are faster interventions for combating malnutrition than economic growth and poverty reduction or that nutrition programs are affordable.
- Because there are multiple organizational stakeholders in nutrition, it can fall between the cracks.
- There is not always a consensus about how to intervene against malnutrition.
- Adequate nutrition is seldom treated as a human right.
- The malnourished have little voice.
- Some politicians and managers do not care whether programs are well implemented.
- Governments sometimes claim they are investing in improving nutrition when the programs they are financing have little effect on it (for example, school feeding).
- A vicious circle: lack of commitment to nutrition leads to underinvestment in nutrition, which leads to weak impact, which reinforces lack of commitment since governments believe nutrition programs do not work.

Some useful extracts from
'Repositioning nutrition as central to development'
World Bank (2006)

"Malnutrition slows economic growth and perpetuates poverty through three routes:

- direct losses in productivity from poor physical status;
- indirect losses from poor cognitive function and deficits in schooling; and
- losses owing to increased health care costs.

Malnutrition's economic costs are substantial: productivity losses to individuals are estimated at more than 10 percent of lifetime earnings, and gross domestic product (GDP) lost to malnutrition runs as high as 2 to 3 percent. Improving nutrition is therefore as much—or more—of an issue of economics as one of welfare, social protection, and human rights.

Reducing undernutrition and micronutrient malnutrition directly reduces poverty, in the broad definition that includes human development and human capital formation. But undernutrition is also strongly linked to income poverty. The prevalence of malnutrition is often two or three times - sometimes many times - higher among the poorest income quintile than among the highest quintile. This means that improving nutrition is a propoor strategy, disproportionately increasing the income-earning potential of the poor … In Sub-Saharan Africa malnutrition is on the rise.

Malnutrition and HIV/AIDS reinforce each other, so the success of HIV/AIDS programs in Africa depends in part on paying more attention to nutrition."

…

Nutrition programs have been low priority for both governments and development partners for three reasons.

First, there is little demand for nutrition services from communities because malnutrition is often invisible; families and communities are unaware that even moderate and mild malnutrition contributes substantially to death, disease, and low intelligence; and most malnourished families are poor and hence have little voice.

Second, governments and development partners have been slow to recognize how high malnutrition's economic costs are, that malnutrition is holding back progress not only toward the malnutrition MDG but also toward other MDGs, or that there is now substantial experience with how to implement cost-effective, affordable nutrition programs on a large scale.

Third, there are multiple organizational stakeholders in nutrition, so malnutrition often falls between the cracks both in governments and in development assistance agencies—the partial responsibility of several sectoral ministries or agency departments, but the

main responsibility of none. Country financing is usually allocated by sectors or ministries, so unless one sector takes the lead, no large-scale action can follow.
…

Although we do not wish to propose a global "one size fits all" approach to addressing malnutrition, we do recommend that when developing strategies specific to a country or region, countries and their development partners pay special attention to the following:

- Focusing strategies and actions on the poor so as to address the nonincome aspects of poverty reduction that are closely linked to human development and human capital formation.

- Focusing interventions on the window of opportunity - pregnancy through the first two years of life - because this is when irreparable damage happens.

- Improving maternal and child care practices to reduce the incidence of low birthweight and to improve infant-feeding practices, including exclusive breastfeeding and appropriate and timely complementary feeding, because many countries and development partners have neglected to invest in such programs.

- Scaling up micronutrient programs because of their widespread prevalence, their effect on productivity, their affordability, and their extraordinarily high benefit-cost ratios.

- Building on country capacities developed through micronutrient programming to extend actions to community-based nutrition programs.

- Working to improve nutrition not only through health but also through appropriate actions in agriculture, rural development, water supply and sanitation, social protection, education, gender, and community-driven development.

- Strengthening investments in the short routes to improving nutrition, yet maintaining balance between the short and the long routes.

- Integrating appropriately designed and balanced nutrition actions in country assistance strategies, sectorwide approaches (SWAps) in multiple sectors, multicountry AIDS projects (MAPs), and Poverty Reduction Strategy Papers (PRSPs)."

FOOD GARDENS

We have all noticed the lack of homestead or community food gardens.

The advantages of food gardens can be exponentially increased with the appropriate knowledge about nutrition and about the medicinal uses of plants. Just the simple act of growing and using herbs as often as possible, for example, even without specific knowledge of their properties, can increase health significantly.

The potential advantages of medicinal and edible gardens are numerous:

- Through the principles of permaculture a small initial investment can lead to **food security** sustainable long-term yields, freeing communities from expensive outsourcing strategies and relationships of dependence.

- Ensuring proper brain development in **early childhood** (essential if children are going to grow up with the capacity to enter the economy with a degree of independence when they are older).

- Facilitating a sense of **community pride**.

- Affirming **traditional eating habits** and **indigenous knowledge systems**.

- Challenging the notion of health as a commodity. Facilitating people to take **control of their own health** means facilitating them to become more than the passive consumers of pre-designed products.

- Giving communities a sense of control and the ability to take **positive action**.

- **Skills development**. The skills of gardening are always associated with food garden projects, but the skills of nutrition management are normally neglected. Nutrition management is usually considered the domain of professionals, and do not always find their way into capacity building programmes – and more specifically, capacity building programmes for people with HIV.

- Increasing **environmental awareness**.

- Making it possible to access the nutrition required to **manage HIV infection**.

- Acquire skills to deal with **substance use**. The skills of making informed choices about nutrition are the building blocks for the skills of making informed choices about substance use (cannabis, caffeine, cocaine, chocolate, etc). Mindful experimentation with nutrition early in life can lay the foundation for all sorts of skills later in life.

- **Conservation** of threatened medicinal plants.

- **Entrepreneurial opportunities**. Selling food is not in itself a very lucrative pursuit. Other alternatives including making essential oils, selling medicinal plants to traditional healers, landscaping with indigenous plants, creating medicinal gardens for private homes and providing HIV specific foodstuffs to community projects, orphanages and clinics need to be explored.

Food security, sustainable approaches to food production, holistic approaches to health and fundamental choices about diet are constantly being taken out of out of the hands of individuals and communities through things like:

- commercialised cash crops;
- monoculture agriculture;
- a highly regulated food industry;
- the dynamics of individual consumer choices in a cash economy;
- market competition and advertising;
- availability to fatty, salty and sugary fast foods;
- the high levels of refined sugar in consumer products; and
- dependency on processed, preserved and refined foods.

Research (as presented by various researchers at the Green Cities Congress in 2002) shows that most households that practice small-scale agriculture do so as an alternative source of food and a way of saving money. Having said this, it is interesting to note that poorer households (the ones who would really benefit) in urban areas are less likely to practice food planting. Food planting tends to be practiced by households that have some expendable income to start a garden and by a person that has time on his or her hands because some other member of the household (usually a spouse) is generating an adequate income.

Commercial food gardening appears to happen on a bigger scale away from households and often on communal ground. Few of these community gardens however make a substantial income. Most make as little as R2000 a year.

Food, herbs and medicinal plants can be used to:

- **boost the immune system,**
- **deal with deficiencies caused by infection (and medication),**
- **treat opportunistic infections,**
- **deal with the symptoms of HIV and the side effects of ART,**
- **increase appetite,**
- **build muscle and prevent wasting,**
- **provide energy,**
- **improve emotional states,**
- **detoxify medication,**
- **facilitate better digestion of both nutrients and medication, and**
- **create a positive sense of taking action rather than being passive.**