

HIV, food and drugs

Livelihoods, nutrition and Anti-retroviral Therapy (ART) in Kenya and Zambia

In eastern and southern Africa, evidence is mounting of a vicious interaction between HIV/AIDS and food and nutrition insecurity. Households affected by adult illnesses and deaths, with a high proportion of dependents, such as the elderly or young children, are far more vulnerable to food security shocks than other households. They face reduced agricultural production and loss of income, resulting in dwindling food security. As impoverished families struggle to cope with the illness and deaths linked to HIV/AIDS, they often resort to 'distress' coping strategies, such as the selling of key assets, that, amongst other things, threaten family cohesion.

The link between nutrition and HIV/AIDS is clear: HIV-negative people with poor diets are more susceptible to infection and have reduced immunity to HIV; HIV-positive people with poor diets develop AIDS more quickly; and people with AIDS have increased nutritional requirements. Both malnutrition and HIV/AIDS have a direct affect on the immune system, impairing people's ability to resist and fight infection. However, nutrition interventions to prevent or reverse the weight loss and wasting associated with HIV may help to preserve independence, improve quality of life, and prolong survival (Piwoz and Preble, 2000).

ART is now part of this picture, becoming more widely available in Sub-Saharan Africa. Some public health services provide antiretroviral drugs (ARVs) free of charge, e.g. Zambia, and more studies are showing, against expectations, that levels of adherence to ART in Sub-Saharan Africa are relatively high. There is also growing evidence that adherence to ART is linked to adequate food and nutrition and that people on ART who receive food supplementation recover much faster (Samuels and Simon, 2006; Edstrom and Samuels, 2007).

This leads to questions on how people on ART manage to maintain food security and consumption levels that enable them to stick



A woman living with HIV and on ART outside her home in Lusaka, Zambia.

to their medications and achieve such high adherence levels. What livelihood strategies are helping them? Food supplementation may be essential in certain circumstances, but how do people manage where food supplementation is not being provided? Is food supplementation always the best option? To answer such questions, ODI and the Population Council carried out a study in Mombasa, Kenya, and Lusaka, Zambia. This Briefing Paper presents

Key points

- ART has restored the health of many people living with HIV, but their livelihoods lag behind
- Good nutrition is important for people on ART. Food supplementation can help, but is no substitute for sustainable livelihoods
- The livelihoods of people on ART can be bolstered through skills, livelihood networks, assets and cash or food transfers

Overseas Development Institute

ODI is the UK's leading independent think tank on international development and humanitarian issues.

ODI Briefing Papers present information, analysis and key policy recommendations on important development and humanitarian topics.

This and other ODI Briefing Papers are available from www.odi.org.uk

Box 1: Food security

Food security relies on three things:

- Food availability – sufficient, appropriate and necessary food is available on a consistent basis;
- Food access – people have the means to purchase, or barter for, the food they need to maintain an adequate diet and nutritional level; and
- Food utilisation – food is properly used: food processing and storage practices are in place; people understand and know how to apply adequate nutrition and child care; and there are adequate health and sanitation services.

the key findings and includes recommendations on how people on ART can be supported to make the transition from supplementary feeding to sustainable, long-term livelihood security.

Using qualitative and quantitative methods, and building on existing studies in Kenya and Zambia, people on ART were interviewed along with members of their livelihood networks – groups of people who exchange resources, usually on the basis of kinship, labour exchange and geography (Samuels et al, 2006). The quantitative survey covered 118 people in Kenya and 375 in Zambia, while a total of 32 people on ART were interviewed for the qualitative study across the two countries. Those in Zambia were drawn from a low-income, densely populated residential area and were from a low, if not the lowest, socio-economic stratum. In Kenya, those surveyed came from a central hospital and tended to be from a higher socio-economic level than those in Zambia. This helps to explain some of the differences across the two countries. Existing tools for measuring food security were used to analyse data and a positive deviance approach was applied – a situation in which some people use uncommon and beneficial practices that give them better health outcomes than others in their community.

Food consumption

Questions around food consumption ascertained the levels of food security. In Zambia, the results showed that most of those on ART were food insecure. Only 6% were food secure, 24% somewhat food secure, 34% somewhat food insecure and 36% food insecure. Similarly, quantitative and qualita-

tive data demonstrated that most people on ART in both Kenya and Zambia reported missing meals, particularly during the rainy season – a season that also offers fewer opportunities to earn cash.

In terms of diet, respondents in Kenya reported a wider variety, eating a large range of foods. In Zambia, most respondents reported eating nshima (porridge made from maize meal) and a vegetable relish (an accompaniment to nshima) the previous day.

Snacking plays an important role in people's dietary intake, and is particularly prevalent in the Kenya sample, with many people snacking around three times per day on a large variety of foodstuffs.

This scenario will be similar for people who are not HIV-positive or on ART. Nevertheless, the extra nutritional requirements of HIV-positive people, their need for a balanced diet and their need to take ARVs with food, make it even more important that their food security is maintained.

Food access

How do people access food? Again, findings are likely to be similar for HIV-negative people, but it is important to remember the particular needs of the respondents on ART. The study identified four ways in which they obtained food: buying it with cash; receiving it through food supplementation programmes; through livelihood networks; and through growing it. Most people in both countries purchase food from the markets or obtain food on credit from shops/stalls, making them vulnerable to price fluctuations.

People buying food usually need some form of livelihood to earn cash. They can also draw on assets, or resort to loans and credit schemes. In both Kenya and Zambia, most respondents in the quantitative survey were self-employed. In the qualitative study in Kenya, most had salaried jobs, while most of the respondents in Zambia made a living from casual labour or piecework, which can range from insecure and unsustainable employment to permanent employment in the formal sector. Women are often found carrying out the more insecure kinds of activities (washing and mending clothes, drawing water), while men were found towards the more secure end of the continuum in more permanent, and often skilled, trades (mending batteries, a cobbler, an office clerk).

For those wealthy enough to own property, renting out rooms is a key livelihood strategy and often provides the capital to start or maintain a business and buy food. Tenants are also a source of food and support, with give-and-take relationships between tenants and owners.

In Kenya, loans from individuals, salary advances, banks or informal saving schemes are also an important way of obtaining cash. In Zambia, while a few respondents were members of informal groups, no one had ever received any loans from a formal lender, such as a bank.

Most respondents in Zambia, had received, and were thankful for, food supplementation. As one

Box 2: Country cases

Kenya

- National HIV prevalence 2006: 5% (UNAIDS, 2008)
- Estimated number of people living with HIV: 1.1 million (NACO, 2008)
- Number receiving ART as of December 2007: 177,000 (WHO, 2008)
- Number in urgent need of ART: 470,000

Mombasa, in the Coast province of South-Eastern Kenya, is the second largest city in Kenya, with a population of one million. It contributes to the national economy through imports and exports via its port – the largest in East Africa – and through tourism. HIV prevalence for those aged 15-49 in Coast province is 5.6% (NAS COP, 2005).

Zambia

- National adult HIV prevalence 2007: 15.2% (UNAIDS, 2008)
- Estimated number of people living with HIV: 1.5 million (NAC, 2008)
- Number receiving ART as of December 2007: 151,999 (WHO, 2008)
- Number in urgent need of ART: 370,000

Zambia is classified by the World Bank as a severely indebted low-income country. Almost 75% of the population lives below the poverty line, 58% are characterised as extremely poor, and nearly 70% of the population has difficulty accessing basic social services (UNDP, 2003). Lusaka, the capital city, has a prevalence rate of 22% for 15 to 49 year olds.

respondent said ‘...without these foods, we could have died of hunger’.

Food supplementation in Zambia is received each month and includes wheat, soya beans, beans, peas, cooking oil, maize, eggs and kapenta (dried fish). All respondents shared this food with their families, and some with neighbours, friends and others in their livelihood network. Giving tends to be reciprocal and people share what they have on the understanding that they will also receive when they are in need. Some spoke about selling their food rations in order to buy other foodstuffs.

‘Yes, we share with people in this house and my neighbours’ when they ask for it,’ said a woman in Lusaka. *‘...and because they assist me with their wheelbarrow, so I give them every time’*

In Kenya, while most respondents had heard about food supplementation programmes, only two had received any food rations.

The problems with food supplementation include its unpredictability and infrequency, and discrepancies between the amounts that people receive. Some respondents also reported stigma when queuing for food supplementation. The quality of the food was also questioned, with people saying it caused health problems and reporting difficulties in preparing and adjusting to the foods (e.g. wheat).

The study found that livelihood networks are crucial in difficult times and include relatives, friends and shopkeepers. Members provide money and food, help with chores, and emotional support. The qualitative study in Kenya identified family members as the most important members of livelihood networks. In Zambia, while family and relatives were a key source of support, neighbours were mentioned repeatedly as crucial for the survival of households and individuals. Daily survival depended strongly on those in close proximity – often neighbours. Though relatives were important, they often lived some distance away and were only approached in a crisis, e.g., when someone needed a large amount of money or when the effects of illness were becoming overwhelming.

As one woman in Lusaka explained: *‘If things become difficult, we ask (for help) from our neighbours ... I remember asking for salt last month ...yesterday (in return) I gave my neighbour some tomatoes.’*

Despite living in cities, some respondents in both countries have farms or gardens. In Kenya, 5% of respondents from the quantitative study reported having a farm and six out of 16 respondents from the qualitative study were involved in farming activities; two saw it as their main source of livelihood, and four said they farmed in addition to their ‘main’ jobs as teachers or shopkeepers. Some 12% of respondents in the quantitative study in Zambia mentioned having a farm and nine out of 16 respondents in the qualitative study had a garden or field from which they gathered household food. Of these nine people, two mentioned farming as their main livelihood.

Produce represents a key food source for those who are less well-off nutritionally and who have a

garden or small farm. Small amounts of vegetables are sold to raise money to buy other foods, and produce is crucial in the exchange relationships that underpin livelihood networks. Farms are not key to survival for those who are better off nutritionally. They share their farm produce between many relatives and may sell any surplus.

Health rebounds, but livelihoods lag

The majority of people surveyed had experienced major set-backs in their livelihoods as a result of their illness. With ART, their health has rebounded but livelihoods lag behind. Most people, both men and women, had more secure livelihoods before they became sick and many have slipped from relatively high return livelihoods, to those with low returns. Some slippage can be explained by their increasing age, but this is not always the case. For many, this decline was the result of sickness.

Illness has meant the loss of jobs, the sale of assets, the collapse of traditional safety nets and falls in standards of living and quality of life. While ART has improved their health, it remains difficult to regain their previous living standards. The exceptions seem to have been helped by an injection of capital.

‘The standard I was living in before getting HIV was a bit higher as I had a husband who was rich,’ said one woman in Kenya. *‘I have not yet attained that ... I sold my radio when I was sick, and before I started medication.’*

Policy and programmes: Next steps

As food supplementation is not a long-term solution, this study highlights the importance of livelihood strategies to help people on ART adhere to medication and achieve good nutrition. It has pinpointed four interlinked areas where support could bolster livelihood strategies: skills; livelihood networks; assets; and cash or food transfers. They lie along a continuum from skills, where an individual has the most control, to transfers, where they have least control. Clearly, these strategies are not exclusive to HIV-positive people, and many programmes of this kind already target the poor and vulnerable. However, people living with HIV and those on ART were, until recently, thought to have no future. With ART, this is no longer the case.

Building skills. Those surveyed in both Kenya and Zambia who have the most secure livelihoods are those with more secure employment, often in the formal sector and in work requiring skills and learning. Education and the provision of skills are just as important, if not more so, for people on ART, who may need to rebuild confidence, and regain or build their skills. Health services must establish linkages with wrap-around programmes that increase skills and opportunities to earn income, and build assets that contribute to food security and good nutrition.

Livelihood networks. The study shows that everyday relationships with neighbours and oth-



Overseas Development Institute

111 Westminster Bridge Road, London SE1 7JD

Tel: +44 (0)20 7922 0300

Fax: +44 (0)20 7922 0399

Email: publications@odi.org.uk

Readers are encouraged to quote or reproduce material from ODI Briefing Papers for their own publications, but as copyright holder, ODI requests due acknowledgement and a copy of the publication.

© Overseas Development Institute 2008
ISSN 0140-8682



Printed on recycled paper, using vegetable-based inks

ers living nearby are crucial to individual survival. These mutual support relationships consist of food and task sharing, such as childcare. An individual's social capital is built and maintained through such networks. Policy-makers should explore ways of building on these informal support systems to help them become more durable.

Assets. The study shows that people with assets have more secure livelihoods and are better able to adhere to their drug regimen. Those on ART who are well enough to work may find their opportunities undermined by the dispersal of their assets during their sickness, and because they did not envisage, or plan for, any kind of future. With ART increasingly available and free in many countries, and with people seeing a remarkable improvement in their health, food and livelihood security becomes crucial to support adherence and longer term security. One way to promote opportunities is by supporting the development of an asset base, which can consist of:

- **Property.** Those who rented rooms were more secure. Wider property ownership through micro-credit, targeted construction loans, and/or cooperative or partnership agreements could have widespread benefits.
- **Land.** The study confirms that land owners are more secure, with better access to food and more able to maintain a balanced diet. Ways of encouraging people to acquire land, perhaps cooperatively, need to be explored. More equitable land holding and land distribution policies could improve access to land.
- **Urban farming and gardening.** Survey results from Zambia, in particular, found that those with gardens or farms had better access to food. Urban gardening and farming should, therefore, be encouraged among people on ART, alongside support for the growing of crops through subsidised inputs, both for cash and subsistence purposes.
- **Savings.** Different forms of micro-credit deserve further exploration as a way for HIV-positive people to acquire an asset base. While such schemes are widespread in many countries, few have been

set up for, or have included, HIV positive people or people on ART. In Kenya, informal group savings schemes or 'merry-go-rounds' appear to be effective, but such schemes do not seem to exist in Zambia, or are not being used by study respondents. These schemes can help HIV positive people build up their assets and further South-South learning is needed to replicate them.

Food and cash transfers. People who are too sick to work need food to survive and rebuild their strength. Those on ART adhere more closely to medication when they have food, side effects are reduced and the overall impact of ART is improved when the drugs are taken with food. When people are already feeling the benefits of ART, cash transfers may be more effective than food, which needs to be ...

- ... well targeted. Body Mass Index (BMI) is often used to determine whether someone should receive food supplementation. While BMI is important, the study suggests the need to identify more focused and context specific indicators, such as household size, number of income earners, kind of employment and whether the household has a farm/garden;
- ... better time-defined. For how long will each person receive food supplementation? The study found that recipients were unsure when the supplementation would end, making it hard to plan their future livelihood strategies;
- ... more predictable and transparently allocated. Many respondents were unsure how often they would receive food, how much they would receive, and why some people received more than others;
- ... seen as an addition to a livelihood, not a replacement. Organisations providing food should encourage those in good health to continue their livelihood activities and link recipients with other groups, including those involved in urban farming, microfinance and livelihood programming.

Fiona Samuels, ODI Research Fellow (f.samuels@odi.org.uk) and Naomi Rutenberg, HIV and AIDS Program, Population Council, USA

References

- Edstrom, J. and F. Samuels (2007). HIV, Nutrition, Food and Livelihoods in Sub-Saharan Africa: Evidence, debates and reflections for guidance. Report prepared for DFID NASCOP (2005). National AIDS and STI Control Programme, Ministry of Health, Kenya. AIDS in Kenya, 7th ed.
- National AIDS Council/Ministry of Health (2008). Zambia Country Report: Multi-sectoral AIDS Response Monitoring and Evaluation Biennial Report, 2006-2007. 31 January, 2008.
- National AIDS Control Programme (2008). UNGASS 2008 United Nations General Assembly, Special Session on HIV and AIDS, Country Report – Kenya.
- Piwoz E.G. and Preble, E.A. (2000) HIV/AIDS and nutrition: A review of the literature and recommendations for nutritional care and support in Sub-Saharan Africa. Washington, DC: SARA Project.
- Samuels, F, N. Rutenberg, J. Simbaya, J. Oka, N. Kisengese, S. Luchters, S. Kaai, and S. Geibel (2008). "Food on the table: An exploration of livelihood strategies and their role in maintaining nutritional status among ART patients in Kenya and Zambia," Horizons Research Summary. Washington, DC: Population Council.
- Samuels, F and Simon, S. (2006) Food, Nutrition and HIV: What next? ODI briefing Paper. (http://www.odi.org.uk/publications/briefing/bp_aug06_hiv_nutrition.pdf).
- Samuels, F., Drinkwater, M. and McEwan, M (2006). Understanding HIV/AIDS and livelihoods: The contribution of longitudinal data and cluster analysis, ODI Briefing Paper.
- UNAIDS (2008). Report on the Global AIDS epidemic 2008.
- UNDP (2003). Human Development indicators 2003 (<http://www.undp.org/hdr2003/indicator/index.html>).
- WHO (2008). Towards Universal Access: Scaling up priority HIV/AIDS interventions in the health sector. Progress Report 2008.

Photo credit: ODI/Fiona Samuels