WFP World Food Programme | World Health Organization | UNAIDS — Joint United Nations Programme on HIV/AIDS — UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, ILO, UNESCO, WHO, WORLD BANK

POLICY BRIEF

HIV, FOOD SECURITY and NUTRITION

Why do food security and nutrition matter in responding to HIV?

Often neglected, food security[1] and nutrition[2] are critical for individuals, households and communities affected by HIV. Lack of food security and poor nutritional status may hasten progression to AIDS-related illnesses[3] and undermine adherence and response to antiretroviral therapy. HIV infection itself undermines food security and nutrition by reducing work capacity and jeopardizing household livelihoods.

HIV impairs nutritional status by undermining the immune system and nutrient intake, absorption and use.[4] Adults with HIV have 10–30% higher energy requirements than a healthy adult without HIV, and children with HIV 50–100% higher than normal requirements.[5] Food availability and good nutrition are thus essential for keeping people with HIV healthy and able to resist opportunistic infections such as tuberculosis for longer.

Addressing food security and nutrition in all settings is vital to achieving the goal of universal access to HIV prevention, treatment, care and support by 2010, to which all Member States of the United Nations have committed themselves.[6] This policy brief highlights actions that governments, civil society and international partners can take to promote food security and nutrition in the context of the AIDS epidemic.

Prevention of HIV transmission

At the individual level, HIV and malnutrition combine to weaken the immune system, increase susceptibility to coinfections and accelerate progression of HIV-related diseases.[7] Lack of food security constrains people's choices about work and education and can lead to increased mobility for work. Limited options for earning an income and mobility can lead to high-risk behaviours such as engaging in sex for food or money.[8]

Education is associated with safer sexual behaviours, particularly for young women. Better educated children are more likely to absorb prevention information and take measures to protect themselves from HIV.[9] Yet households that are food insecure must often take children out of school to work to supplement the family income.

Treatment

Adequate dietary intake and absorption are essential for achieving the full benefits of antiretroviral therapy, and there is emerging evidence that patients who begin therapy without adequate nutrition have lower survival rates.[10] Antiretroviral therapy itself may increase appetite and it is possible to reduce some side-effects and promote adherence if some of the medicines are taken with food.[11] Given the need for

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1 Food security involves: (a) availability of nutritious foods; (b) reliable access to that food (through food production, ability to purchase food, or support from safety-net programmes or from other people); and (c) appropriate use of that food within the home.

2 Good nutrition involves both having access to healthy food and using it in a nutritionally sound manner.

3 Gillespie S, Kadiyala S (2005). *HIV/AIDS and food and nutrition security: from evidence to action*. Washington, DC, International Food Policy Research Institute.

4 Piwoz E, Preble E (2000). *HIVAIDS and nutrition: a review of the literature and recommendations for nutritional care and support in sub-Saharan Africa*. United States Agency for International Development.

5 Energy requirements vary according to symptomatic or asymptomatic status.

6 2006 *Political Declaration on HIV/AIDS*, Article 20.

7 Semba RD, Tang AM (1999). Micronutrients and the pathogenesis of human immunodeficiency virus infection. *The British Journal of Nutrition*, 81(3):181–189.

8 Weiser SD et al. (2007). Food insufficiency is associated with high-risk sexual behavior among women in Botswana and Swaziland. *PLoS Medicine*, 4(10):1589–1598.

9 Glynn JR et al. (2004). Does increased general schooling protect against HIV infection? A study in four African cities. *Tropical Medicine & International Health*, 9:4–14.

10 Paton NI et al. (2006). The impact of malnutrition on survival and the CD4 count response in HIV-infected patients starting antiretroviral therapy. *HIV Medicine*, 7(5):323–330.

11 World Bank (2007). *HIV/AIDS, nutrition and food security: what we can do. A synthesis of international guidance*. Washington, DC, World Bank.

Women, food security and HIV

Women are biologically, socially and economically more vulnerable than men to HIV. People without access to adequate food, income and land, especially women and girls, are more likely to be forced into situations that place them at risk of HIV infection such as mobility for work, transactional or commercial sex, or staying in abusive sexual relationships due to economic dependency.

Women are usually involved in producing, purchasing and preparing food. When a woman is HIV-positive, household food security is affected when these responsibilities shift to younger, more inexperienced women in the home. Women are also primary caregivers. Caring for ill family members means less time is available for food production and preparation.

Most HIV-positive children contract the virus from their mother during pregnancy, delivery or breastfeeding. Inadequate nutritional status may increase the risk of vertical HIV transmission.[12] HIV-positive mothers need access to appropriate information and replacement feeding options, in order to minimize the risk of transmission during breastfeeding.

adherence in delaying resistance to first-line drugs, nutritional support is critical to sustaining antiretroviral treatment.

Care, support and impact mitigation

Malnutrition increases fatigue and decreases physical activity in people living with HIV and erodes household livelihoods through a reduced ability to work and earn an income for food.[13] In an agrarian economy, this means reduced agricultural output due to decreased productivity, illness and death of agricultural workers, and a possible loss of farming knowledge transfer between generations.

Home-based care provided by family or other volunteers is common for people living with HIV. Improving food security by increasing production or providing food assistance can keep entire families food secure and help treat sick individuals. Keeping HIV-positive people productive also ensures they can contribute both to the household income and to the wider community. In rural households affected by HIV, in areas where agriculture is a major source of employment, ensuring intergenerational knowledge transfer and measures to sustain or improve agricultural productivity will be important for mitigation.

Vulnerability to and risk of HIV infection may increase when social stability is disrupted in humanitarian settings. Crises and conflict may lead to fragmentation of normal social structures and increased food insecurity. Vulnerabilities and risks may also be heightened because HIV prevention and other public services, including education, are interrupted.[14]

Policy position

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".[15]

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

[12] Op. cit. 3.
[13] Op. cit. 4.
[14] HIV prevalence does not necessarily increase in emergencies, and is often lower among refugees than in the surrounding host populations: see Spiegel P et al. (2007). Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan African countries: a systematic review. *Lancet*, 369:2187–2195.
[15] 2006 *Political Declaration on HIV/AIDS*, Article 28.

2015 (Goals 1 and 6).[16] 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 multisectoral response to HIV. Specifically, UNAIDS, the World Food Programme and the World Health Organization recommend the following actions.

Actions for governments

- Use poverty reduction strategies, social policies and sector, district and local plans—including disaster preparedness plans—to sustain livelihoods and to integrate approaches to food security and nutrition with responses to HIV.
- Incorporate nutrition indicators into HIV monitoring and evaluation activities, including monitoring and evaluation of the national AIDS strategy.
- Work across sectors and with civil society and people living with HIV to reach the most vulnerable, ensuring that food and nutrition assistance is relevant, appropriate and does not fuel stigma and discrimination.
- Integrate HIV and food and nutrition programmes by, for example:
  - expanding nutritional support, including for pregnant and lactating women and children, emphasizing appropriate infant feeding as part of the prevention of mother-to-child transmission of HIV;
  - supporting adequate dietary and nutritional intake as a part of successful treatment programmes, including through provision of nutritional counselling and linking individuals to services.[17]
- Engage the private sector in developing local food fortification initiatives that generate income and in linking these initiatives to treatment interventions.
- Ensure agricultural policies and programmes are HIV responsive by, for example:
  - improving livelihood options at home, thereby reducing the need to migrate;
  - integrating HIV information into agricultural extension programmes;
  - enabling affected households to participate in agricultural production and marketing by accommodating the need to be near home to care for sick relatives;
  - using cooperatives and farmers organizations as entry points for mitigation, care and support activities, such as establishing community health insurance funds or social funds to provide care and support to orphans and other children made vulnerable by AIDS.[18]

Actions for international partners

- Fund multisectoral HIV programming that incorporates effective food and nutrition interventions, in line with scale-up towards universal access to prevention, treatment, care and support by 2010.
- Support initiatives such as school feeding, home or communal gardens, cash transfers, income-generation activities and actions to increase agricultural production.

Actions for civil society

- Advocate policies and programmes that incorporate nutrition and food security in line with scale-up towards universal access to prevention, treatment, care and support by 2010.
- Increase awareness of how proper food and nutrition can reduce vulnerability to HIV infection and increase resilience to AIDS.
- Work with the government and people living with HIV to reach the most vulnerable, ensuring that assistance including food assistance is relevant to the needs and capacities of the beneficiaries and addresses issues of stigma and discrimination.

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[16] These commitments build on the fundamental human rights enshrined in the 1948 *Universal Declaration of Human Rights* (Article 25) and the *International Covenant on Economic, Social and Cultural Rights* (1966), stressing "the right of everyone to … adequate food" and to the enjoyment of "the highest attainable standard of physical and mental health".

[17] For more detailed guidance, see op. cit. 11.

[18] For more on agricultural policy adaption in HIV-related contexts, see Jayne TS et al. (2005). HIV/AIDS and the agricultural sector: implications for policy in eastern and southern Africa. *The Electronic Journal of Agricultural and Development Economics*, 2(2):158–181.

Policy-makers' voices

Dr Mary Shawa, Principal Secretary for Nutrition, HIV and AIDS, Office of the President and Cabinet, Malawi

Malnutrition, chronic food shortages and HIV are major problems in Malawi. Micronutrients studies in 2001 showed that 25% of adults were malnourished, with 75% of them being HIV-positive. Recognizing that HIV, poor nutrition and food security are major, interrelated, national challenges that are hindering human capital and economic development in Malawi, His Excellency Dr Bingu wa Mutharika, President of the Republic of Malawi, in 2004 committed himself to championing a solution by creating the Department of Nutrition, HIV and AIDS to provide policy direction, oversight, coordination and monitoring and evaluation of nutrition, HIV and AIDS national responses.

The Malawi Development and Growth Strategy: From Poverty to Prosperity 2006-2011, the overarching policy strategy for development in Malawi, identified the prevention and management of nutrition disorders, HIV and AIDS as one of the priority areas. Addressing the interaction between nutrition and HIV is key, and as the Strategy notes, the "Malawi Government is committed to improving and diversifying the diet of people living with HIV, and increasing the provision of HIV-related nutrition interventions".

One example is Malawi's antiretroviral therapy programme, in which more than 150 000 of the 175 000 people estimated in 2004 to be eligible for treatment are accessing free antiretroviral drugs. More than 60 000 of those in the programme are receiving nutrition support and more than 50 000 received fertilizer subsidies to assist with their own food production. Nutrition is not treatment for HIV, but is a very critical aspect for effective and efficient treatment.

Malawi is also planning to train 8000 community workers and 360 specialists in nutrition, HIV and dietetics, to sustain positive behaviour change and reinstate the successful Home Craft Worker Programme. The community workers will be responsible for door-to-door counselling and HIV testing, diagnosis of malnutrition, and follow-up to ensure adherence to antiretroviral therapy. At the same time, they will promote the production of and access to highly nutritious foods for a varied, diversified and nutritious diet.

Dr Praphan Phanuphak, Director, Thai Red Cross AIDS Research Centre

HIV infection can negatively impact food security and nutrition, which in turn affects disease progression and treatment outcomes. For two years I have been running HIV and nutrition interventions, and have witnessed first-hand how nutritional counselling and support helps many patients receiving antiretroviral treatment, including through reduced side-effects, increased treatment adherence and overall improved health and nutritional status.

As Co-Director of the Thai-Australian Collaboration in HIV Nutrition, a partnership between the Thai Red Cross AIDS Research Centre, the Albion Street Centre and the Institute of Nutrition, Mahidol University, I see the direct positive effects of nutrition counselling and education on the nurses, dieticians, adults and children in our programme. We counsel more than 300 patients living with HIV on nutrition. I urge countries to set aside a percentage of their ART budget for nutritional interventions, and provide patients with income to buy food for themselves and their families in the initial phase of treatment, when they may not be strong enough to resume work. Addressing stigma and discrimination will also help people with HIV to find and maintain employment, and thus be able to meet their own nutritional requirements.

A longer version of this policy brief is available at http://data.unaids.org/pub/Manual/2008/jc1515a_policybrief_nutrition_en.pdf

Best practice

Academic Model for the Prevention and Treatment of HIV (AMPATH)

In Kenya, as part of AMPATH—which started in 2002—nutrition support is being provided to patients determined by the programme criteria as lacking food security in 19 locations. By the beginning of 2008, an estimated 50 000 people living with HIV were to have been reached.[19] At any given site, an estimated 20–50% of people living with HIV are accessing food support through the HAART[20] and Harvest Initiative of AMPATH.

A review in 2006 found that patients enrolled in the nutrition supplement programme while taking antiretroviral therapy reported greater adherence to their medication, fewer food-related side-effects and a greater ability to satisfy increased appetites. The majority of patients experienced weight gain, recovered physical strength and were able to resume labour activities.[21]

Food is provided for individuals and their dependents for up to six months after the start of antiretroviral therapy. Patients unable to meet their food needs after this period can enter a weaning programme that provides food and training aimed at enhancing long-term food security.

[19] The number of people in the programme is growing by roughly 2000 per month (http://medicine.iupui.edu/kenya/hiv.aids.html).

[20] Highly active antiretroviral therapy.

[21] Byron E, Gillespie S, Nangamib M (2006). *Linking nutritional support with treatment of people living with HIV: lessons being learned in Kenya* (http://ifpri.org/renewal/pdf/brKenya.pdf); http://medicine.iupui.edu/kenya/hiv.aids.html