



## Backgrounder Regional Consultation on Nutrition and HIV/AIDS

### 1. Why is WHO holding a Consultation on Nutrition and HIV/AIDS in South-East Asia?

- WHO is holding this Consultation as a direct response to:
  - Resolution 57.14 of the World Health Assembly on "Scaling up treatment and care within a coordinated and comprehensive response to HIV/AIDS." This resolution urges Member States as a matter of priority to pursue policies and practices that promote integration of nutrition into a comprehensive response to HIV/AIDS.
  - Resolution WHA 59.11 on Nutrition and HIV/AIDS where Member States are requested to make nutrition an integral part of their response to HIV/AIDS by identifying nutrition interventions for immediate integration into HIV/AIDS programming.
- The relationship between nutrition and HIV/AIDS is complex. Both HIV infection and malnutrition rates are rising in the region. Governments are facing a range of policy and programme challenges related to food, nutrition and scaling-up of programmes to accelerate access to life-saving anti-retroviral therapy (ART) and HIV care. Through a participatory process, the Consultation will identify evidence-based actions to achieve the goals set by the World Health Assembly Resolutions.

### 2. What are the expected outcomes of the Consultation?

- Scientists will present the latest information on the impact of HIV on nutrient needs for adults, children, pregnant and lactating women; and examine the relationship between food, nutrition and ART.
- Representatives from government and non-governmental organizations, including organizations of people living with HIV/AIDS, will examine what has and has not worked in their efforts to provide adequate food and nutritional care and ART; and

outline plans of work and next steps.

- The meeting will produce a consensus statement and recommendations for immediate actions to improve the nutrition and health of HIV-infected people in South-East Asia. These recommendations will be used to develop guidelines for policies and programmes. An agenda for future research will be developed from the key gaps identified by the Consultation, wherever possible.

### 3. What is the role of food and nutrition in relation to HIV and AIDS?

- HIV progressively damages the immune system, which can make a person susceptible to a range of opportunistic infections and conditions such as weight loss, fever and diarrhoea. These conditions can also lower food intake because they reduce appetite and interfere with the body's ability to absorb food.
- As in the population at large, a good diet that provides the full range of essential nutrients is important to the health of people living with HIV and can help maintain the immune system, boost energy levels and preserve body weight.
- HIV-infected adults and children have increased energy (calorie) requirements compared with uninfected adults and children. In asymptomatic HIV-positive adults and children, there is a 10% increase in energy needs. Energy requirements for adults suffering from more advanced disease are increased by 20 to 30% in order to meet basic needs and to maintain body weight. Energy requirements are increased by 50 to 100% in HIV-positive children experiencing weight loss.
- Current data are insufficient to support recommending an increase in protein needs due to HIV infection. Although muscle wasting is a common feature of AIDS and protein metabolism may be affected by HIV infection, the evidence indicates that this is more related to the amount of food that a person with HIV is able to eat, than a need for increased dietary protein.
- There is no evidence that food and dietary improvements alone can stop HIV infection from progressing to AIDS. Comprehensive care for people living with HIV and AIDS should include both good nutrition and anti-retroviral therapy, where clinically indicated.

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**4. Do micronutrient supplements improve the immune status and health of people living with HIV/AIDS?**

- WHO and UNICEF recommendations for micronutrient supplementation for people living with HIV are the same as those for the general population. Results of several studies investigating the role of micronutrient supplements on the course of HIV/AIDS have been inconclusive.
- Micronutrient supplements are not an alternative to comprehensive HIV treatment and care. There is no evidence that, taken alone, micronutrient supplements prevent HIV disease progression. However, there is some evidence suggesting that adequate micronutrient intake may be particularly important to the health of people living with HIV and AIDS. Further research is needed.

**5. What does WHO recommend on infant feeding?**

- The most appropriate infant feeding option for an HIV-infected mother should continue to depend on her individual circumstances, including her health status and the local situation, but should take greater consideration of the health services available and the counselling and support she is likely to receive.
- Exclusive breastfeeding is recommended for HIV-infected women for the first six months of life unless replacement feeding is acceptable, feasible, affordable, sustainable and safe for them and their infants earlier. When replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected women is recommended.
- At six months, if replacement feeding is still not acceptable, feasible, affordable, sustainable and safe, continuation of breastfeeding with additional complementary foods is recommended, while the mother and baby continue to be regularly assessed. All breastfeeding should stop once a nutritionally adequate and safe diet without breast-milk can be provided.
- Whatever the feeding decision, health services should follow-up all HIV-exposed infants, and continue to offer infant feeding counselling and support, particularly at key points when feeding decisions may be reconsidered, such as the time of early infant diagnosis and at six months of age.
- Consistent messages and frequent, high quality counselling

have improved adherence to and longer duration of exclusive breastfeeding up to 6 months in HIV-infected and uninfected mothers.

- Breastfeeding by an asymptomatic HIV-positive mother does not appear to increase the mother's disease progression or risk of death; however, maintaining good nutritional status of the lactating mother is still important.
- WHO guidelines on how to feed the non-breastfed infant after six months are available. Countries need to adapt and ensure use of these recommendations.

**6. How does HIV infection affect growth in children?**

- HIV infection impairs the growth of children early in life and growth faltering is often observed even before the onset of advanced HIV infection. Poor growth increases the risk of child mortality in both HIV-infected and uninfected children.
- HIV replication, chronic diarrhoea and other opportunistic infections are key factors that impair growth in HIV-infected children. Anti-retroviral therapy and treatment of opportunistic infections will improve the growth and survival of HIV-infected children. Improved dietary intake during recuperation from opportunistic infections may help infants recover lost weight.

**7. What are the most important things for HIV-positive mothers to know and do during pregnancy and the postnatal period?**

- Pregnant women require both additional energy and micronutrients in order to remain well and gain weight normally. Lactating mothers require even more energy every day to maintain their own health and nutrition while breastfeeding their infants. This is true for HIV-infected and uninfected women.
- Women living in resource limited settings are at an increased risk of poor nutrition, especially during pregnancy and lactation.
- HIV-positive pregnant and lactating women also have additional nutritional requirements due to HIV. They may suffer common infections such as pneumonia as well as opportunistic infections such as TB and are especially at greater risk of postpartum infections and wound problems.

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- HIV-positive women may also be socially and psychologically vulnerable and therefore may require enhanced follow-up and support during antenatal and postnatal care to achieve adequate nutrition.
- In areas where malnutrition is endemic, many pregnant women are deficient in specific micronutrients such as iron, vitamin A and folic acid, regardless of their HIV status. The causes are varied and may be due to a combination of poor diet, limited access to prenatal supplements, or the effect of HIV. An adequate intake of these micronutrients should be ensured during pregnancy. Daily micronutrient supplements may be needed if regular diet is insufficient.
- Severe anaemia is more common among HIV-positive pregnant mothers and is associated with increased risk of mother-to-child HIV transmission and maternal mortality. Recommendations for prevention and treatment of anaemia during pregnancy are similar for HIV-infected and uninfected women.
- HIV-positive women who breastfeed for a long time are likely to lose more weight than HIV-uninfected women who breastfeed. For this reason, nutritional support is justified, especially if women do not have adequate food at home.

## **8. What are the most important nutritional considerations when using ART in areas where malnutrition is common?**

- Safe, clean drinking water and an adequate diet are important to ensure good health for those who are HIV-infected whether on ART or not. Good nutrition and clean water make it easier to adhere to ART, which ensures that the ART works effectively.
- Drug metabolism is affected by nutritional status, and people with nutritional deficiencies may handle some of the ART and other drugs differently. Herbs and traditional medicines may also affect how drugs are metabolized.
- Nutritional assessment is advised as an essential part of comprehensive HIV care both before and during ART. Nutritional screening consists of basic anthropometry; length/height and weight measurements in infants and children; assessment of appetite and diet, including access to adequate food, use of micronutrient supplements, as well as use of herbs and botanical

therapies. Monitoring growth, weight and appetite are simple ways to monitor the response to ART and can be performed by most health care workers.

- While the life-saving benefits of ART are clearly recognized, metabolic complications associated with longer term use of ART have been reported in industrialized countries in adults and children. These complications include changes in fat deposition and metabolism, which increase the risk of cardiovascular disease, diabetes and bone related problems.
- In HIV-uninfected individuals, nutrition counselling and support can play a role in the management of several metabolic complications such as diabetes, hyperlipidemia and poor eating habits.

## **9. What are the most important interventions for improving nutrition in the context of HIV?**

- Nutritional assessment, especially routine monitoring of weight and height (in children), is an integral part of HIV care and treatment and can be carried out at all levels of the health system, including within home and community-based care.
- Nutrition counselling, care and support are useful at all stages of HIV infection, during recovery from associated infections, and in managing appetite and weight loss.
- Nutrition counselling and support may also play a role in the management of metabolic complications, such as diabetes and hyperlipidemia, associated with the long-term use of ART in some people.
- Nutrition counselling, care and support may occur in clinic, community and home-based care programmes.
- Targeted food supplements for food insecure patients, such as pregnant women, breastfeeding mothers, young children and other vulnerable groups in areas where malnutrition and food shortages are common.
- Therapeutic feeding and care for severely malnourished HIV-infected adults and children and appropriate management of mild and moderate malnutrition are still necessary alongside specific treatment for infection and HIV.