Elements to be considered in the situation analysis

As with all planning exercises, the process of deciding on how best to address the food and nutritional needs of people living with HIV/AIDS (PLWHIV) and HIV-affected families and communities begins with a careful situation assessment. The goal of this assessment is to understand nutritional problems in the population as a whole and how those living with or affected by HIV/AIDS may be specifically impacted.

It is important to understand the extent, nature and causes of nutritional problems. The key questions that should be asked include:

1. What are the primary nutritional problems & why do they occur? What problems affect the general population? Are there nutrition problems specific to PLWHIV and HIV-affected communities?

2. How widespread are they? What is the prevalence of nutritional problems? Are HIV/AIDS affected populations specifically impacted? What is the geographic distribution of malnutrition and how does it overlap with the distribution of HIV/AIDS? Are there seasonal changes in food and nutritional indices?

3. Who is affected? What population and lifecycle groups are most highly affected? Are there other vulnerable populations?

4. What policies and programmes are already available to address these problems? Is there policy guidance on nutrition and HIV/AIDS (including infant feeding and HIV) and how widely implemented is it? Is there legislation in development, pending, or enacted to address nutrition issues in general? Issues specific to nutrition and HIV/AIDS? What programmes are being supported in the public sector? Outside the public sector? What institutions are involved in providing nutrition support to PLWHIV and HIV-affected communities?

5. What other resources and experience can be brought to bear to address these problems? What activities are external donors funding (and where)? Has there been any operational research, evaluation studies, or other learning activities to draw out lessons for future programming? Who are the main nutrition “champions”? Who are the primary implementers of nutrition support activities?

It is important to note that nutritional problems span a broad range from issues of food shortage and chronic energy deficiency to problems of diet quality and micronutrient malnutrition. In some areas it may also be important to review available data on nutrition-related chronic diseases and how they are managed. This issue is particularly relevant when preparing for introduction and scale-up of antiretroviral treatment programmes.

Conducting a nutrition situation assessment does not necessarily require a lot of primary data collection. In fact most countries already gather much of the most important information through periodic demographic and health surveys (DHS), the Multiple Indicator Country Surveys (MICS) and through knowledge, practice, and coverage surveys (KPC) or other sources of information.
Important components of a nutrition assessment include:

- **Weight, Height, MUAC, Body Mass Index.** Periodic monitoring of body weight is a standard part of patient monitoring in most HIV programmes. Additionally, programmes may consider collecting patient height or mid-upper arm circumference (MUAC) to identify wasting and need for therapeutic care. Numerous studies have reported an association between low BMI and reduced survival in HIV-infected adults.

- **Biochemical profile.** Anaemia has been shown to be a strong predictor of mortality in HIV independent of immune status. Furthermore, some antiretroviral drugs affect red blood cell production and thus should not be used if patients are already suffering from anaemia. Where laboratory capabilities exist, programmes may consider monitoring insulin resistance, cholesterol, and triglycerides in patients receiving HAART who are at risk of diabetes and cardiovascular disease (CVD).

- **Nutrition history, food security/vulnerability.** There are several approaches for assessing nutrition and food insecurity that programmes may elect to use in order to better target their interventions and referrals for livelihood support. Modified 24 hour dietary recalls and/or diet histories may provide useful information on dietary diversity and overall adequacy at baseline and during follow-up.

**Rationale for including nutrition in the proposal**

The recent WHO review of the evidence on HIV and nutrition summarized the state of knowledge and gaps with respect to macronutrient and micronutrient processes and requirements, nutritional issues related to the use of antiretroviral drugs, and special nutritional concerns throughout the lifecycle. Several specific objectives for nutritional support within HIV/AIDS prevention, treatment and care programmes were identified from this evidence review. Programme planners should determine which of these objectives they are aiming to achieve when proposing food and nutrition interventions.

The specific objectives include providing nutrition counselling, care, and support (including food and/or nutritional supplements as appropriate) in order to:

- **Protect and improve the nutritional status of PLHWA and HIV-affected households/or families.** Interventions to protect and/or improve nutritional status can be preventive in nature or they may be therapeutic.

- **Promote continuity of care.** Periodic nutrition assessment beginning at the time of HIV diagnosis and continuing throughout care and treatment is currently recommended to monitor health and to identify practices that can be adopted to maintain weight in adults and growth in children, and to preserve muscle mass.

- **Promote & improve adherence to treatment.** Many drugs used to treat HIV-related complications are difficult to tolerate in empty stomach for example; additionally they are ARV drugs that affect the absorption of different nutrients.

- **Improve birth outcomes & promote HIV-free survival in children.** Providing appropriate nutritional support to HIV-positive mothers during pregnancy and the postnatal period is important for improving birth outcomes, protecting newborn health and infant growth and development, and promoting HIV-free survival.

**Link between nutrition and the proposal objective**
The specific objectives in the area include providing nutrition counselling, care, and support (including food and/or nutritional supplements as appropriate):

**Objective 1: Protect and improve the nutritional status of PLHWA and HIV-affected households/or families.** Studies suggest that in areas where malnutrition is endemic approximately 60% of severely malnourished HIV-positive children can recover to adequate weight-for-height with nutritional therapy in combination with treatment of concurrent acute infections.

**Objective 2: To promote continuity of care.** Decline in nutritional status, particularly recent weight loss, may be an early indication of secondary infection or advancing disease that may trigger further assessments of immune status and eligibility for ART. For patients already on antiretroviral therapy, weight loss or wasting is also an indication of inadequate viral suppression and possible treatment failure.

**Objective 3: Promote & improve adherence to treatment.** Abundant anecdotal evidence supports the notion that individuals are less likely to adhere to medications when they are hungry and lack food. Many drugs used to treat HIV-related complications, such as TB treatments and other medications, are difficult to tolerate on an empty stomach and cause nausea and vomiting.

**Objective 4: Improve birth outcomes & promote HIV-free survival in children.** Poor maternal nutrition is associated with increased risks of low birth weight, mother-to-child HIV transmission, and mortality. Poor maternal nutrition might also be associated with early introduction of mixed feeding (due to perceptions of insufficient breast milk) as well as other caring practices. Early mixed feeding is associated with increased neonatal and infant morbidity and risk of HIV infection through mother-to-child transmission.

**Defining and quantifying target population**

Periods and target population that are priority for integrating nutritional care include:

- Pregnant women - to ensure appropriate nutritional care and support during pregnancy and the postnatal period

- Lactating women

- Infants and young children

**Main activities to be considered**

In short, the key interventions that should be planned for include:

- **Maternal nutritional assessment** and counselling during pregnancy and the postnatal period

- **Provision of antenatal micronutrient supplements** (daily supplements), including iron-folic acid and/or multiple micronutrient supplements

- **Food support** to treat moderate and severe malnutrition during pregnancy & breastfeeding

- **Counselling on infant feeding options** before birth and continued infant feeding counselling and support at delivery and throughout the postnatal period
Provision, where necessary, of replacement feeding for high-risk infants (such as orphans and mothers with AIDS), including breast milk substitutes from birth where conditions for safe use are possible (see [16] for these criteria) and mothers receive adequate support to prevent mixed feeding.

Provision, where necessary, of replacement feeding following early breastfeeding cessation where this can be safely practised.

To ensure that optimal feeding practices are supported, the UN Framework for HIV and infant feeding underscores the importance of these activities, which should also be included in country plans:

Develop or revise a comprehensive national infant and young child feeding policy that addresses the needs of HIV-exposed and infected infants and children

Implement and enforce the International Code of Marketing of Breast-milk Substitutes and subsequent, relevant World Health Assembly resolutions

Intensify efforts to promote, protect, and support appropriate infant and young child feeding practices, recognizing HIV as one of several challenging circumstances (this is especially critical in populations where HIV-programme expansion is occurring)

Strengthen local capacity to provide counselling and support to HIV-positive women about infant feeding options so that they can make informed decisions and successfully implement them

Support operations research, and monitoring and evaluation related to infant feeding and HIV and disseminate findings

Costing the activities

Estimating resource requirements is critical to successful integration and implementation of nutrition activities. Budgetary line items that reflect the required essential services should be incorporated into the total funding proposal budget, earmarked if possible, to ensure that resources are available for nutritional care and support services and activities. Following is an illustrative list of activities and items that may need to be budgeted for:

- TA to develop national policy & guidelines
- Human resources development & training
- Organizational capacity & development
- Equipment for nutrition assessment such as scales, stadiometers, MUAC tapes; forms to record client information; laboratory costs, including assays and laboratory equipment; soap, gloves, disposable bins for hazardous materials like needles; educational materials and job aids
- Therapeutic & supplementary foods
- Food rations
Micronutrient supplements

Communications & advocacy strategies & materials

Monitoring & evaluation

Operations research/learning

Community outreach

Key indicators

- # patients who favourably modify their dietary practices as a result of counselling
- # patients who improve their food hygiene & water safety practices
- % patients receiving food who were fully adherent to treatment regimens
- % with adequate weight gain following treatment initiation

Linkages with other programmes

Nutrition is a cross-cutting issue. It needs to be seen as integral part of Universal Access care and support programmes. It needs to be integrated into relevant programmes such as Maternal and Child Health services, PMTCT, Food Security and Support, ART delivery, etc.

Key implementing partners

Partners to be considered for implementing nutrition-related activities are various and include:

- International agencies - for technical assistance, facilitation of work

- Other governmental sectors such as agricultural sector (to ensure coordination with food production and availability), women's development offices (as a way of integrating women in the decision-making process), etc.

- Education institutions, including health pre-service and post-graduate education

- Community-level institutions

- Non-governmental organizations

Technical assistance

Technical assistance can be provided in relation to a number of activities that are necessary to support integration of nutrition into HIV care. These include:

- Developing supportive policies & guidelines

- Training & capacity development
Development of tools & materials to facilitate implementation & quality assurance

Communications & advocacy

Monitoring & evaluation

Research & dissemination