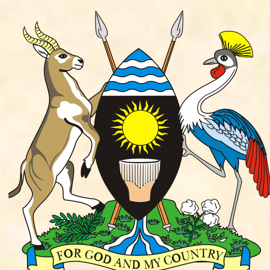

THE REPUBLIC OF UGANDA

Ministry of Health

Nutrition in the Context of HIV and Tuberculosis Infection

Strategic Plan 2009 – 2014

June 2009

Foreword

The HIV epidemic has had direct as well as indirect effect on nutrition at both the global and local levels. The decline in productivity and purchasing power result in increased risk of malnutrition among the HIV and/or tuberculosis infected persons and their families. Furthermore, reduced access to adequate quality food, poor appetite due to disease or medications, increased energy demands, and the mal-absorption associated with HIV disease progression also result in malnutrition. High rates of malnutrition among the people living with HIV (PLHIV) who are eligible for antiretroviral treatment as well as the emerging evidence on the significance of moderate and severe malnutrition as an independent predictor of mortality among the PLHIV, underscore the need to scale up nutrition-related interventions. With improved understanding of the relationship between HIV disease and nutrition, it is feasible to strengthen integration of prevention and management of malnutrition into the national response to HIV and tuberculosis infections. This will have the favourable result of reduced rates of malnutrition and associated morbidity and mortality; as well as improved responsiveness, effectiveness and treatment outcomes.

The prioritisation for national scale-up of antiretroviral treatment for both adults and children in the country dictates that knowledge and skills in nutrition-related care and support should be consolidated and also rapidly scaled up to all service delivery points. The target for this component contributes to the National Development Plan and is in line with the national Priority Action Plan as well as the Health Sector HIV and AIDS Strategic Plan. The Strategic Plan on Nutrition in the Context of HIV and Tuberculosis Infections, specifically operationalises the scale-up of nutrition interventions within the defined areas by government, development partners, implementing partners and other stakeholders. In this regard, the strategic plan was developed through a participatory process and multi-sectoral approach to facilitate mainstreaming for sustainability and equity. The government fully appreciates contributions and participation by the development partners and other stakeholders during the preparation of the strategic plan and for supporting the on-going interventions. We strongly appeal to all partners and stakeholders to join the partnership to ensure that targets set in the national level plans are realised.

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Acronyms

AIDS	Acquired Immune-Deficiency Syndrome
ART	Antiretroviral Treatment
BCC	Behaviour Change Communication
BMI	Body Mass Index
CBO	Community Based Organisation
CDC	Centres for Disease Control and Prevention
CSO	Civil Society Organisation
DOTS	Directly Observed Therapy Short-course
EGPAF	Elizabeth Glaser Paediatric AIDS Foundation
EID	Early Infant Diagnosis (of HIV)
FBO	Faith Based Organisation
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HAART	Highly Active Antiretroviral Treatment
HIV	Human Immunodeficiency Virus
HSSP	Health Sector Strategic Plan
IBFAN	International Baby Food Action Network
IEC	Information, Education and Communication
IMAM	Integrated Management of Acute Malnutrition
IYCF	Infant and Young Child Feeding
MCHN	Maternal, Child Health and Nutrition
MoH	Ministry of Health
NCDC	National Curriculum Development Centre
NGO	Non-Governmental Organisation
NTLP	National Tuberculosis and Leprosy Control Programme
NuLife	Food and Nutrition Interventions for Uganda
OTC	Out-Patient Therapeutic Care

OVC	Orphans and other Vulnerable Children
PEPFAR	Presidential Emergency Programme for AIDS Relief
PLHIV	People / Persons Living with HIV
PREFA	Protecting Families Against HIV/AIDS
RCQHC	Regional Centre for Quality of Health Care
RNA	Ribonucleic Acid
RUSF	Ready to Use Supplementary Food
RUTF	Ready to Use Therapeutic Food
SFC	Supplementary Feeding Centre
STD/ACP	Sexually Transmitted Disease / AIDS Control Programme
TB	Tuberculosis
TFC	Therapeutic Feeding Centre
UDHS	Uganda Demographic and Health Survey
UHSBS	Uganda HIV/AIDS Sero-Behavioural Survey
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHT	Village Health Team
WFP	World Food Programme
WHO	World Health Organisation

Executive Summary

It is more than two decades since HIV/AIDS was first reported in Uganda, with prevalence among adults aged 15-49 years being estimated at about 6.4%. The last sero-behavioural survey report revealed marked gender, geographical, socio-economic and socio-demographic disparities in the magnitude of the Ugandan epidemic. There is evidence that tuberculosis (TB) is the most common opportunistic infection among the people living with HIV and up to 60% of TB patients are co-infected with HIV. It is clear that HIV has been responsible for fuelling up the TB epidemic and complicating its epidemiology. Whereas effective antiretroviral treatment would reduce the impact of AIDS, reports from Ministry of Health reveal that a significant gap still exists between the number of infected adults and children who need antiretroviral treatment and those who currently access it.

Malnutrition in Uganda is a consequence of limited or inadequate preventive and/or corrective actions. It is the single greatest contributor towards child morbidity and mortality in the country, accounting for up to 60% of the cases. There is a very close relationship between nutrition and HIV, with effects of the infection beginning while the individual is still asymptomatic. For instance, there is an association between poorer clinical outcome and higher risk of death among the HIV-infected adults with compromised micro-nutrient status. In addition, the nutrition related side effects of antiretroviral drugs can affect adherence to therapy, which could in turn lead to a less favourable outcome from the antiretroviral treatment. Furthermore, HIV infection among pregnant women has been linked to pre-term and low birth weight as well as compromised capacity for exclusive breastfeeding due to impaired nutritional status that begins when they are still pregnant and continues after they have given birth.

There is also a close relationship between malnutrition and tuberculosis. Whereas malnutrition is a strong risk factor for progression from latent TB to active form of the disease, the infection is by itself a risk factor for malnutrition. In addition, the TB-infected individuals who are malnourished are at increased risk of death despite being on appropriate antibiotic treatment. Nutrition interventions therefore, constitute an important integral part of the TB management as well as HIV prevention, treatment, care and support services. The above scenario calls for wise investment to strengthen interventions for nutrition within the context of HIV and tuberculosis infections.

The Strategic Plan on Nutrition in the Context of HIV and TB Infections was developed and aligned to the national level Policies and Strategic Plans that provide guidance to nutrition, HIV and TB programmes. The main purpose is to provide a national framework to guide the development, implementation, monitoring and evaluation of food and nutrition interventions for people living with and affected by HIV and/or TB.

It defines the priority actions that are required at all levels to mainstream nutrition within the context of HIV and TB infections into existing programmes.

The key principles guiding the Strategic Plan include:

- Mainstreaming the prioritised interventions into existing programme activities
- Focussing on reduction of the incidence and prevention of malnutrition
- Protecting the rights of all individuals, particularly the vulnerable groups
- Enhancing meaningful participation of the communities
- Being pro-active about, and responsive to nutrition-related inequalities
- Promoting collaboration and strengthening coordination

The overall goal of the Strategic Plan is to provide a framework for technically sound, integrated and coordinated food and nutrition interventions in the context of HIV and TB programmes. This will be achieved by addressing the following objectives:

1. To strengthen advocacy and mobilise resources for nutrition in HIV and TB interventions at all levels
2. To increase coverage of food supplementation for persons infected with HIV and TB
3. To establish and/or strengthen the institutional capacity to support quality nutrition in HIV and TB interventions
4. To promote coordination and strengthen linkages among partners involved in food and nutrition interventions in the context of HIV and TB
5. To strengthen the nutrition management information system and use of strategic information for decision making and planning for nutrition in HIV and TB
6. To promote and support meaningful community involvement in nutrition within the context of HIV and TB
7. To promote regular monitoring and evaluation of nutrition in HIV and TB activities

Different approaches were utilised to estimate the population in need of services and the coverage of services was based on national targets and proportions considered to be reasonable. The estimation of dietary requirements will require field data, including the variance in proportion of clients graduating from service provision based on the average treatment time. The proposed set of indicators and targets for monitoring and evaluation of the activities have been included in the relevant chapter. They will be refined during development of the monitoring and evaluation framework. The up-to-date estimated resources that will be committed to the Strategic Plan was not readily available partly due to various funding modalities and timing for operational plans. Nevertheless, commitments will include contributions from Government, bilateral and multi-lateral development partners.

1: Introduction

1.1: Magnitude of HIV and TB Infections in Uganda

It is more than two decades since HIV/AIDS was first reported in Uganda, which is one of the countries in sub-Saharan Africa seriously affected by the epidemic. The 2004-05 Uganda HIV/AIDS Sero-behavioural Survey (UHSBS) reported a prevalence of 6.4% among adults of 15 – 49 years of age. The UHSBS revealed marked gender, geographical, socioeconomic and socio-demographic disparities in the magnitude of the epidemic. In general, women were disproportionately more affected than men (7.5% versus 5.0%) at national level and in all regions of the country. In addition, the urban residents were more likely to be infected (10.2%) than their rural counterparts (5.7%). Cumulatively, about 2.6 million people have been infected with HIV over the 25 years of the epidemic and as of December 2007, about 940,000 were living with the virus, approximately 130,000 of them children aged less than 15 years[1]. It is estimated that about 135,000 new HIV infections occur annually, 18% due to mother to child transmission. Furthermore, it is estimated that by June 2008 about 300,000 HIV infected adults and children were eligible for antiretroviral therapy (ART). Approximately 142,000 had accessed ART, 9% of whom were children under 15 years of age.

Tuberculosis (TB) is the most common opportunistic infection among the HIV-infected population. HIV is responsible for fuelling up the TB epidemic and complicating its epidemiology, which could possibly explain why Uganda is among the countries with a very high prevalence of TB, estimated at 600 cases per 100,000 population. The programme monitoring reports from the National TB and Leprosy Control Programme (NTLP) have also shown that up to 60% of patients with tuberculosis are co-infected with HIV. Tuberculosis is of particular interest within the context of HIV infection because it is the leading cause of mortality, contributing to approximately one-third of deaths among the people living with HIV. Furthermore, patients who are infected with tuberculosis have nutrition-related challenges that require specific interventions similar to those for HIV-infected individuals.

1.2: Nutrition in HIV and TB Infections

HIV infection affects nutrition through increases in the resting energy expenditure; reduction in food intake; nutrient mal-absorption and loss; as well as complex metabolic alterations that culminate in weight loss and wasting. The effect of HIV on nutrition begins early in the course of the disease, even before an individual is aware of being infected by the virus. Asymptomatic HIV-infected adults require about 10% more

[1] Estimates derived from Spectrum (UNAIDS, 2008; Ministry of Health, 2008)

energy while the symptomatic HIV-infected ones require between 20 – 30% more energy when compared to un-infected individuals. The HIV-infected children who are experiencing weight loss require 50 – 100% more energy when compared to the un-infected child. The evidence on the impact of pre-existing malnutrition on HIV susceptibility and disease progression is equivocal. Nevertheless, weight loss and wasting have been associated with an increase in opportunistic infections and shorter survival time among HIV-infected adults, independent of their immune status.

There has also been an association between poorer clinical outcome and higher risk of death among HIV-infected adults with compromised micro-nutrient intake or status. Furthermore, deficiencies of vitamins such as A; B-complex; C; and E as well as minerals such as selenium and zinc, which are required by the immune system in response to infections, have been found to be quite common among the people infected with HIV. On the other hand, small studies among adults with AIDS have reported that daily micro-nutrient supplementation improved body weight and body cell mass; reduced the levels of HIV ribonucleic acid (RNA); improved the CD4 cell counts; and reduced the incidence of opportunistic infections. Whereas highly active antiretroviral treatment (HAART) has been associated with improved nutritional and immune status of HIV-infected individuals, nutrition-related side effects such as nausea and vomiting as well as metabolic complications such as deranged glucose and lipid metabolism can be caused by some drugs. The side effects of the antiretroviral drugs could affect adherence to therapy and therefore requires appropriate interventions.

Malnutrition is recognised to be a strong risk factor for progression from latent tuberculosis to active form of the disease. On the other hand, it is also well known that tuberculosis is itself a risk factor for malnutrition, and that the patients who are malnourished and suffering from tuberculosis (Body Mass Index less than 18.5) are at an increased risk of death even with appropriate antibiotic therapy. The evidence from research is overwhelming and underscores the importance of access to nutritional enhancements to complement interventions that include minimizing diagnostic delays; and fortifying adherence to requisite TB treatment regimens. Vitamin D supplementation appears to have a beneficial effect on the treatment of tuberculosis, through enhancing the body's immunity to the disease. It has been observed that deficiency of vitamin D appears to impair the body's ability to fight tuberculosis and that genetic differences in the vitamin D receptor exist among some populations. Whereas the mechanism by which this happens in humans is not entirely clear, the vitamin D-mediated killing of tuberculous bacteria appears to happen via an antimicrobial peptide called cathelicidin. Reduced levels of vitamin D may explain the increased susceptibility of African-Americans to tuberculosis, and why phototherapy is effective for tuberculosis of the skin.

Prevention, treatment, care and support for HIV among children pose special challenges. HIV infection among pregnant women has been linked to pre-term and low birth weight, which result in infants starting life with sub-optimal nutritional status. The current guidance is for HIV-infected mothers to be supported to breastfeed exclusively for the first six months unless replacement feeding is affordable, feasible, acceptable, sustainable and safe. The HIV-infected mothers who initiate breastfeeding should have access to safe, nutritious complementary feeds after six months. The capacity to exclusively breastfeed by HIV-infected mothers is often compromised by their own impaired nutritional status right from the time when they are still pregnant till after delivery. On the other hand, HIV-infected infants experience slower growth and are particularly at high risk of severe malnutrition. Whereas the severe malnutrition in HIV-infected children is capable of reversal with appropriate therapeutic feeding, studies reveal that recovery tends to take longer than among the un-infected children.

Nutrition-related interventions constitute an important integral part of the TB management as well as HIV prevention, treatment, care and support services. The interventions that form the basis for this strategic plan include: counselling and support to improve food intake / maintain weight during asymptomatic infection; education to prevent food and waterborne infections; counselling to manage nutrition-related symptoms of HIV-related illnesses; counselling on management of treatment-related side-effects and prevention of drug-food interactions; therapeutic feeding to manage moderate and severe malnutrition among TB and HIV-infected adults and children; and counselling on optimal feeding for HIV-exposed and infected infants and young children. In other words, the priority actions within this strategic plan will focus on the nutritional status of adults and children infected with TB and/or HIV.

1.3: Policy Framework

The Strategic Plan for Nutrition in the Context of HIV and Tuberculosis Infections was developed as part of the process to operationalise the national draft Food and Nutrition Bill that provides overall policy guidance on all nutrition-related interventions. It is aligned to the draft Uganda National HIV and AIDS Policy, which provides the overarching guidance for HIV-related interventions. It contributes to the targets set out within the National Development Plan (NDP) that is a follow-up on the Poverty Eradication Action Plan (PEAP). Furthermore, this Plan is aligned to the National Health Policy and the second Health Sector Strategic Plan (HSSP II) that provide the overall guidance for the health sector response.

1.4: Purpose

The main purpose of this document is to provide a national framework to guide the development, implementation, monitoring and evaluation of food and nutrition

interventions for people living with and affected by HIV and/or tuberculosis. The fundamental principle is one of mainstreaming all the interventions into existing programmes for nutrition, HIV and tuberculosis as well as integration into the new or planned interventions.

1.5: Scope

The Strategic Plan defines the priority actions that are required to mainstream nutrition within the context of HIV and tuberculosis infections into existing programmes with a focus on general Nutrition, HIV and TB Control Programmes. It covers interventions at all the levels ranging from national, regional, district to sub-district. The scope covered includes the interventions within the public sector, the civil society (NGO, CBO and FBO) as well as the private sector.

2: Situation Analysis

2.1: National Situation of Nutrition in HIV and TB Infections

The national adult HIV prevalence of 6.5% among women attending ANC translates every year to about 90,000 pregnant women who are infected with the virus. Without any interventions, this would result in about 24,000 HIV infected children every year. The early diagnosis of HIV among infants and young children makes it possible to classify HIV exposed babies in three categories namely: HIV exposed but not infected; HIV exposed and infected; and HIV exposed but with unknown status. These categories are useful in deciding the optimal feeding practices as well as appropriate care and treatment interventions.

The Uganda Demographic and Health Survey (UDHS) 2006 reported that almost all children in the country were breastfed at some point. However, only six in ten children under the age of 6 months were exclusively breastfed in the previous 24 hours, with a median duration of about 3.1 months; while median duration of any breastfeeding is almost 20.4 months. This has important implications for mother to child transmission of HIV through this route and implementation of interventions that reduce the transmission risk. The data also showed that complementary foods were not introduced in a timely fashion for some children since at 6-9 months of age approximately one in five children was not receiving complementary foods.

Out of the estimated one million people who are living with HIV in the country, about 350,000 are in advanced stage of infection and in need of antiretroviral treatment (ART). The children under 15 years of age account for about 15% of the total number. As of December 2008, only about 156,000 were reported to be accessing treatment, with the children under 15 years of age constituting about 9% of this total. The strong relationship between HIV infection and nutrition has been observed and reported from settings within the country. For instance, the data from ART clinics reveal that up to 23% of adults and 50% of children who were on treatment have moderate acute malnutrition. On the other hand, in 2007 the Mwanamugimu Nutrition Clinic in Mulago reported that 40% of the children who were admitted with malnutrition were found to be infected with HIV.

The relatively high prevalence of tuberculosis in Uganda translates to approximately 164,140 people living with the infection in the country. For instance, in 2007 alone the NTLP reported that there were up to 41,000 new smear-positive TB cases. The males were proportionately more affected by tuberculosis than females: 57% of all the cases were males; and 60% of the new smear-positive cases of tuberculosis were males.

Furthermore, studies have revealed that about one-third of the people living with HIV develop tuberculosis during the course of their lives.

2.2: Stakeholders' Analysis

The Table 1 below presents a summary of the main stakeholders who support interventions on nutrition within the context of HIV infection at the national level.

Table 1: Stakeholders Supporting Nutrition and HIV Interventions

Area of Support and Coverage	Partner
Policies and guidelines	WHO, UNICEF, RCQHC
Capacity building	WHO, UNICEF, WFP, Clinton Foundation, CDC, EGPAF, NULIFE, PREFA, IBFAN (U), ACF, MSF, RCQHC
IEC materials and job aides	WHO, UNICEF, WFP, EGPAF, NULIFE, RCQHC, IBFAN (U)
Community response	UNICEF, WFP, CDC, EGPAF, NULIFE, PREFA, IBFAN (U), ACF, MSF
Feeding programmes (SF and TF)	UNICEF, WFP, NULIFE, ACF, MSF, Clinton Foundation, ACDI/VOCA
Production, fortification and distribution	Clinton Foundation, NULIFE, GAIN, WFP
Nutrition information system	UNICEF, NULIFE, MSF, ACF
Growth promotion and monitoring	UNICEF, IBFAN (U)
Micronutrient interventions	UNICEF, WFP, A2Z
Advocacy	UNICEF, NULIFE, IBFAN (U), RCQHC, UGAN, FANTA-2

2.3: Health Services Delivery System

The National Health Policy defines the approach to health service delivery in the country. It emphasizes partnership between the public sector, civil society organizations (CSOs) and private sectors in the delivery of health services. The implementation of this policy is guided by the second phase of Health Sector Strategic Plan (HSSP II). Under this health policy, delivery of health service in Uganda has been decentralised to districts and sub-district level with the central level Ministry of

Health mandated to provide leadership and guidance for the countrywide delivery of health services. In line with this, the constitutional roles of the Ministry of Health comprises of formulation of policy and technical guidelines; monitoring and evaluation of their implementation by lower levels; human resource planning and capacity development; epidemic management; disease surveillance; resource mobilisation as well as co-ordination; supervision and quality assurance.

The Ministry is also responsible for setting standards for implementation of health programmes, and to ensure prudent management of sector resources; procurement of medical and pharmaceutical supplies and medical equipment. Under the decentralisation policy, districts are responsible for the management all health services in their respective areas of jurisdiction, whether private or public. All stakeholders at the district level are considered part of the district health system and are responsible for development and implementation of the district health work plans. Districts are also responsible for mobilisation of local resources and promoting community participation in health service delivery.

2.4: Status of Implementation

The draft Food and Nutrition Bill provides the overall framework for implementation of all nutrition interventions in the country. However, due to the multi-sectoral mandate that it has to accommodate, the Bill does not go into specifics on programme areas such as nutrition within the context of HIV and TB infections. Whereas guidelines for implementers on nutrition in the context of HIV were developed, produced and disseminated, they tend to fall short in relation to guidance for Programme Managers and Planners to design effective interventions.

The Ministry of Health first developed and launched Policy Guidelines on Feeding of Infants and Young Children in the Context of HIV in 2001, to guide the managers and implementers of maternal and child health services on optimal infant and young child nutrition. This document has been revised and updated to be in line with the Global Strategy for Infant and Young Child Feeding (IYCF) and recommends three broad categories: Children in normal circumstances; Children exposed to HIV; and Children in other exceptionally difficult circumstances.

Over the past 8 years, the Ministry has adapted a six-day training package on integrated infant and young child feeding counselling course that aims to build capacity of health workers to support optimal IYCF practices and where necessary, to help mothers to overcome infant feeding-related difficulties. The package includes the Directors Guide; Facilitator and participants' manuals; Counselling cards on IYCF; and Take home fliers on IYCF and maternal nutrition. A three-day training package was also developed to orient the health workers who have not gone through the

comprehensive six-day course, on basic facts about IYCF; and how to use the available job aides and IEC materials to counsel the mothers or caretakers. In addition, a component for building the capacity of community based resource persons, which is of three-days' duration was developed and pre-tested.

A basic package on IYCF and maternal nutrition has been incorporated in the PMTCT and Early Infant Diagnosis (EID) training. The aim is to orient PMTCT and EID service providers on basic facts about IYCF and maternal nutrition. In addition, the PMTCT and EID policy guidelines have captured some issues on infant and maternal nutrition. Furthermore, the Ministry with support from development partners has developed a three-day training package on Outpatient Therapeutic Care (OTC) of acute malnutrition in children including those living with HIV. The package comprises of Facilitator's and participants' manual.

2.5: Critical Gaps in Implementation

An analysis of the strengths, opportunities and weaknesses / challenges related to nutrition interventions within the context of HIV and TB infections was conducted with a focus on factors that could be responsible for the identified critical gaps as well as existing strengths/ opportunities. The Table 2 below summarises the output of the analysis, which will form the basis for strategic programme design.

Table 2: Gap Analysis Matrix for Nutrition and HIV Interventions

Gap	Attributable Factors	Strengths / Opportunities	Objective
1. Weak advocacy and inadequate funding for nutrition in general, but in particular for HIV and TB interventions at all levels	Low prioritisation of nutrition by government, donors & implementers Weak leadership for nutrition in health sector Weak advocacy and limited lobbying skills among nutritionists Lack of guidelines on essential components of nutrition and HIV interventions No communication strategy for nutrition Lack of activists for nutrition	New leadership for nutrition in health sector Technical Working Committee under MCH Cluster is in place National Food and Nutrition bill in place Food and Nutrition Policy in place Nutritionists available at regional level Stakeholders are interested to support nutrition and there is increasing commitment to nutrition in HIV by the donor community	To strengthen advocacy and mobilise resources for nutrition in HIV and TB interventions at all levels
2. Low coverage of food supplementation for the persons infected with HIV and TB	Very expensive (donor dependent) Promotes dependence Inadequate knowledge about food supplementation (micro and macro) Inadequate advocacy on need for supplementation Limited data on the need for food supplementation	Food by prescription and RUSF/RUTF for specific nutrition needs available There are committed partners in area of nutrition and HIV engaged in food supplementation Local foods available Potential exists for processing of RUSF/RUTF	To increase coverage of food supplementation for persons infected with HIV and TB
3. Weak infrastructure to	Nutrition not mainstreamed into existing programmes	Centres of excellence available Training institutions for nutritionists and	To establish and/or strengthen the

Gap	Attributable Factors	Strengths / Opportunities	Objective
support quality nutrition in HIV and TB interventions including lack of equipment and inadequate skilled human resource at all levels	Weak regulatory framework for food products at the Ministry of Health Lack of nutrition standards for the local foods Low prioritisation of nutrition in HIV and TB care Role of nutrition not yet appreciated in health care Low recruitment and few opportunities for professional growth due to low prioritisation of nutritionists as a cadre Lack of standardised nutrition curriculum and comprehensive training plan	dieticians in place Process of developing curriculum (pre- & in-service) Nutrition posts have been established Critical mass of HR available to provide services Increasing appreciation of the role of nutrition as standard of care Training and IEC materials available for local adaptation Development Partners supportive	institutional capacity to support quality nutrition in HIV and TB interventions
4. Weak coordination and lack of policy guidelines on nutrition in HIV and TB	Lack of coordination structure to link with other sectors Inadequate competence to address nutrition issues within the sector Existing Food and Nutrition Policy does not adequately address nutrition in HIV and TB	New leadership for nutrition in health sector Technical Working Committee under MCH Cluster is in place Nutritionists available at regional level Some stakeholders are committed to support nutrition Operational framework on nutrition under development Implementation guidelines in place	To promote coordination and strengthen linkages among partners involved in food and nutrition interventions in context of HIV and TB
5. Weak system for	No national database and Information	Existing data sets e.g. UDHS, studies	To strengthen the

Gap	Attributable Factors	Strengths / Opportunities	Objective
information management and limited research conducted on nutrition in HIV and TB	system Weak technical expertise Lack of equipment and tools Lack of indicators for nutrition in HIV and TB Weak coordination, information sharing and adaptation of promising practices No research agenda	Development partners supportive Global indicators in place Many un-answered questions on nutrition	nutrition management information system and use of strategic information for decision making and planning for HIV and TB
6. Low involvement of communities in nutrition within the context of HIV and TB	Stronger lean towards curative than preventive services Mode of work not promoting community involvement Infected clients are not receiving adequate nutrition counselling Inadequate knowledge on use of the locally available food Few appropriate models and on a limited scale Few community-based organisations involved in nutrition services for PLHIV and TB No standardised incentive for community volunteers	Development partners interested to support community initiatives Role of community in nutrition is appreciated Communities willing to participate in nutrition programmes	To promote and support meaningful community involvement in nutrition within the context of HIV and TB

3: The Strategic Plan on Nutrition in HIV and TB Infections

3.1: Guiding Principles

The key principles that were adopted during the development of the Strategic Plan on Nutrition within the context of HIV and tuberculosis infections in Uganda are based on the existing policy and legal framework. Consequently, the Strategic Plan will be guided among others, by the following principles:

1. Mainstreaming the prioritised interventions into the existing and planned Nutrition, HIV and Tuberculosis Programme activities.

2. Focussing on the reduction of incidence and prevention of malnutrition among people living with HIV and/or infected with TB.

3. Protecting the rights of all individuals, particularly the vulnerable groups, to nutrition related information, counselling and support irrespective of their HIV or TB-infection status.

4. Enhancing meaningful participation of the communities, including the People Living with HIV (PLHIV), in the development, implementation, monitoring and evaluation of the interventions.

5. Being pro-active and responsive to nutrition-related inequalities that arise from among others, gender, age, cultural and socio-economic factors.

6. Promoting collaboration and strengthening coordination among the different stakeholders at all levels from central, district, sub-district and community levels.

3.2: Vision, Goal and Strategic Objectives

Vision

The vision that underpins the Strategic Plan on Nutrition within the context of HIV and TB infections is an improved well-being, economic livelihood and survival of HIV and/or TB infected and affected individuals as well as families in Uganda.

Goal

The overall goal of the Strategic Plan is to provide a framework for technically sound, integrated and coordinated food and nutrition interventions in the context of HIV and TB programs.

3.3: The Gantt Chart

Objective	Strategic Interventions	Indicators	Lead Actors	Time Frame (Years)					Budget (UGX '000)	Comments
				1	2	3	4	5		
1. To strengthen advocacy and mobilise resources for nutrition in HIV and TB interventions at all levels	1.1 Convene annual donor conferences for resource mobilisation	# of conferences convened	MoH						15,000	
	1.2 Convene bi-annual advocacy meetings for the nutrition, HIV and TB stakeholders	# of advocacy meetings conducted	MoH						20,000	Two to be convened each year
	1.3 Develop, produce, launch and disseminate a communication strategy on nutrition in HIV and TB	# of copies produced and disseminated	MoH						918,000	Includes support for IEC interventions
	1.4 Identify and support activists on nutrition in HIV and TB	# of activists supported	Stakeholders						25,000	
2. To increase coverage of food supplementation for persons infected with HIV	2.1 Support production and appropriate use of RUTF based on the locally available foods for TB and HIV infected persons	Type of local foods produced and used as RUTF	MoH						1,000,000	

Objective	Strategic Interventions	Indicators	Lead Actors	Time Frame (Years)					Budget (UGX '000)	Comments
				1	2	3	4	5		
and TB	2.2 Promote appropriate use of the locally available foods at the household level	# of households appropriately using local foods	Districts	X	X	X	X	X	2,000,000	Targeted education intervention at household level
	2.3 Integrate food supplementation and nutrition education into home based care, TB-DOTS and ART programmes	# of programmes with integrated services	Districts	X	X	X	X	X	20,000	Development and production of Guidelines for integration
3. To establish and/or strengthen the institutional capacity to support quality nutrition in HIV and TB interventions	3.1 Review, update and/or develop guidelines on the essential components of nutrition in HIV and TB	Type of guidelines updated or developed	MoH	X					30,000	
	3.2 Produce and disseminate the guidelines through a comprehensive plan	# of guidelines produced and disseminated	MoH	X	X				138,000	
	3.3 Recruit additional human resource at national level; fill the existing gaps at national,	# and cadres recruited at national and	MoH; Districts	X	X				10,000	Cost of adverts and interviews

Objective	Strategic Interventions	Indicators	Lead Actors	Time Frame (Years)					Budget (UGX '000)	Comments
				1	2	3	4	5		
	regional and district levels	district levels								
	3.4 Source for appropriate technical assistance on nutrition in HIV and TB	Availability of appropriate TA	MoH; Districts						100,000	
	3.5 Procure equipment and supplies for nutrition interventions and programmes	Type and quantity procured	MoH						2,050,000	Anthropometric equipment and supplies
	3.6 Develop standards and the regulatory framework for food products at the Ministry of Health	Availability of regulatory framework	MoH; NBS						44,000	
	3.7 Finalise the development, production and integration of nutrition in HIV and TB into pre- and in-service training curricula	Nutrition in HIV and TB integrated into existing curricula	MoH; MoES: NCDC						24,000	
	3.8 Support in-service training and other capacity building activities for formal and	# of service providers trained	MoH; Districts						1,375,000	

Objective	Strategic Interventions	Indicators	Lead Actors	Time Frame (Years)					Budget (UGX '000)	Comments
				1	2	3	4	5		
	traditional service providers									
	3.9 Facilitate participation of nutritionists at regional training workshops and conferences	# of nutritionists supported	MoH; Partners						125,000	
4. To promote coordination and strengthen linkages among partners involved in food and nutrition interventions in context of HIV and TB	4.1 Integrate nutrition, HIV and TB into the existing coordination structures at national, regional and district levels	Nutrition, HIV and TB integrated into existing coordination structures	MoH; Districts						360,000	
	4.2 Develop, produce and disseminate policy and implementation guidelines on nutrition in HIV and TB	Availability of policy and implementatio n guidelines	MoH						33,000	
5. To strengthen the nutrition management information system and use of	5.1 Establish a data base and monitoring/ surveillance system that include nutrition in HIV and TB indicators	Availability of functional database & system	MoH						650,000	
	5.2 Train service providers at	# of service	MoH;						650,000	

Objective	Strategic Interventions	Indicators	Lead Actors	Time Frame (Years)					Budget (UGX '000)	Comments
				1	2	3	4	5		
strategic information for decision making and planning for nutrition in HIV and TB	all levels on the nutrition information management system	providers trained	Districts							
	5.3 Document best practices and periodically share experiences and technical updates on nutrition in HIV and TB e.g. Annual & Quarterly Bulletins	Availability of documentation (s)	MoH; Districts						90,000	
	5.4 Develop a research agenda for nutrition in HIV and TB	Availability of research agenda	MoH						760,000	Includes conducting research studies
6. To promote and support meaningful community involvement in nutrition within the context of	6.1 Develop and produce a community information package on nutrition in HIV and TB	Availability of information package	MoH						43,000	
	6.2 Train the VHT and other existing networks on nutrition in HIV and TB	# of VHT and other CORPS trained	Districts						1,200,000	

Objective	Strategic Interventions	Indicators	Lead Actors	Time Frame (Years)					Budget (UGX '000)	Comments
				1	2	3	4	5		
HIV and TB	6.3 Train PLHIV and caretakers on nutrition in HIV and TB	# of PLHIV trained	Districts; PLHIV						500,000	
	6.4 Support community-based nutrition education including the use of demonstration gardens and agricultural plots	# of communities supported	Districts NGOs CBOs						875,000	
7. To promote regular monitoring and evaluation of nutrition in HIV and TB Activities	7.1 Monitor for the appropriate use of guidelines and standards	# of visits; Timeliness of reports							-	Linked to the budget for technical supervision
	7.2 Conduct technical support supervision/ mentoring visits and regional meetings	# of visits # of regional meetings	MoH; Districts						1,400,000	
	7.3 Conduct mid-term review and evaluation of programme interventions	Timeliness of reports							700,000	Includes a baseline assessment

4: Financing Strategy

Malnutrition in Uganda is a consequence of limited or inadequate preventive and /or corrective actions. It is the single greatest contributor towards child morbidity and mortality in the country, accounting for up to 60% of the cases. The cost of malnutrition and its burden to the national health system constitutes such a high a price that it should neither be neglected nor ignored. For instance, it is estimated that between the period 2006 and 2016, there will be 340 million clinic attendances related to vitamin A deficiency and sub-optimal breastfeeding. Approximately 25 million of these will be admitted for hospital care and the cost of treating associated diseases will be about US $3.3 billion[2]. This scenario will be worsened by the high prevalence of HIV in the country, which impacts on both vitamin A deficiency and optimal breastfeeding. The situation calls for wise investment to strengthen interventions for nutrition within the context of HIV infection.

4.1: Costing of Interventions

The actual services that are required to realise the objectives of this Strategic Plan fall under the following categories: Advocacy and resource mobilisation; Procurement and distribution of food supplements; Institutional capacity building; Coordination and collaboration; Management Information System (includes research); Community involvement; Monitoring and evaluation.

The main service items include training sessions, materials development and production; meetings for planning and coordination; field activities; communication and advocacy activities; procurement of commodities and supplies; operations research. The cost of training was standardised based on experiences from conducting training workshops; and intermediate costs from local suppliers as well as for contracting out Technical Advisory services were used to estimate for the first year of implementation. Follow up activity costs for the subsequent years were adjusted to account for inflation and growth in the number of clients as a result of improved survival that is associated with effective treatment. In addition, the demand levels were discounted for expected reduction in the rates of malnutrition among the clients.

Different approaches were utilised to estimate the population in need of services. Training needs were based on targeted personnel whose routine duties and responsibilities include community education and technical support services that can easily integrate with nutrition care and support. Materials production was based on both the number of registered facilities in the country; and the TB / HIV-related

[2] Source: PROFIFES, Uganda 2008

statistics. The client service needs were derived from the annual national estimates on magnitude of HIV and TB in the country. Estimates for malnutrition rates were derived from the on-going food and nutrition interventions in Uganda as well as from published literature. The number of clients requiring various foods or dietary interventions was computed using estimated rates of moderate and severe adult malnutrition.

The estimation of coverage of services during the Strategic Plan period was based on published national targets and the other coverage levels based on proportions that were considered to be reasonable. The cost of each service during each year was estimated from the product of unit cost, population of beneficiaries and targeted coverage. In order to cost the supplementary and therapeutic feeding commodities, the adult, pregnant and lactating women; and children client groups were separated since they have different requirements. The scale up of interventions will include increase in both the number of facilities and number of clients, which will result in a periodic pattern that is dependent upon number of new facilities covered. Consequently, the best way to handle supply of commodities will be the "pull" approach. On the assumption that nutrition education and counselling will be concurrently strengthened, after the majority of malnourished clients get treated and discharged from the programme, demand will decrease to a steady level that is determined by the incidence of malnutrition.

Estimation of the dietary commodities requires field data on the number of eligible clients, rate of relapse; number of new cases of malnutrition; maximum mean number of clients that facilities can support; realistic average treatment time in months; percentage of clients who graduate based on average treatment time; and variance in percentage of clients graduating based on the average treatment time. Furthermore, the number of clients and facilities in the programme, rate of enrolment and rate of discharge experienced before the scale-up phase will be required.

4.2: Financing the Estimates

The up-to-date total estimated resources that will be committed to the strategic plan was not readily available partly due to various funding modalities and timing for operational plans. The Government commitments are likely to include contributions from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). In addition, there will be resources from PEPFAR, the United Nations Agencies (UNICEF, WFP, UNFPA and WHO) and the bilateral development partners through different funding mechanisms, including the Civil Society Fund (CSF). The contributions from the civil society (non-governmental organisations; faith based organisations and community based organisations) as well as from the private sector though difficult to capture and include in the plan, will be significant.

5: Monitoring, Evaluation and Research

5.1: Monitoring

The ability to acquire and use relevant information is important for the programme on nutrition in the context of HIV and TB infections. A sound monitoring and evaluation component will help the programme to track its successes, build credibility with the development partners and motivate the implementers to sustain momentum.

Monitoring refers to the regular collection, analysis and use of information to help guide the programme. The main elements of monitoring are the programme inputs, its performance and progress. A monitoring plan is a basic and vital management tool that provides implementers and other stakeholders with information that is essential to designing, implementing, managing, and evaluating the activities. To fulfil the monitoring function, the monitoring plan must include systems for collecting data and information on key activities as well as systems for summarizing, analysing, and using the information to make decisions and take action.

Monitoring is essential in order to ensure that the nutrition programme is being carried out as planned and that no unintended, unforeseen, or unexpected events or shifts are taking place. This gives the opportunity to determine whether the planned activities are in fact responsible for producing whatever changes that may be observed. Monitoring requires paying attention to the process and the performance, with measures that are as specific and quantitative as possible.

Process monitoring: This will measure whether activities were implemented with the planned frequency, with the planned intensity, with the appropriate timing, and as directed to reach the intended audience. It will begin at the start of the program activities and continue throughout the entire length of the nutrition-related program.

Performance monitoring: This will measure and closely follow the quality, quantity, and distribution of programme outputs.

The main input indicators identified for monitoring the nutrition programme in context of HIV and TB infections have been spelt in relation to the proposed activities in the Gantt chart. The output indicators include the following:

- Proportion of clients assessed for nutritional risk
- Proportion of clients given nutrition education and counselling
- Proportion of eligible clients who receive supplemental/therapeutic food support

- Proportion of treatment centres and other service delivery points with integrated nutrition programmes
- Proportion of district HIV programmes with nutrition integrated

5.2: Evaluation

Evaluation is the careful examination of an ongoing or completed programme that measures how well the programme has achieved its objectives. In other words, it involves a systematic, objective analysis of the programme's performance, efficiency and impact in relation to its objectives. It can explain why a program is effective or why it is not effective, including the effects of different activities on different outcomes. Well designed and implemented programme evaluation can stimulate its improvement and redesign; guide cost-effective future funding allocations and support advocacy as well as fund raising.

Evaluation of the programme for nutrition in the context of HIV and TB infections will be guided by the strategic objectives that were developed. It will utilise both population-based and programme-based data, gathered by quantitative as well as qualitative methodologies. The indicators for evaluation will measure outcomes and the interim effects of the targeted interventions, with the aim of verifying the arising outcomes and impact. Mid-term evaluation will be conducted to fine tune programme components. Some of the outcome and impact indicators that will be used for evaluation of the programme include the following:

- Proportion of clients who adopt and maintain recommended dietary practices after counselling
- Proportion of clients receiving therapeutic/supplemental food who fully adhere to treatment regimens
- Proportion of clients with reduced frequency of gut-related opportunistic illnesses
- Proportion of malnourished children who recovered after nutritional therapy
- Proportion of malnourished adults who recovered after nutritional therapy
- Proportion of in-patients with reduced average length of stay

The Table 3 below presents the proposed targets to be attained at mid-term in 2011 and at the end of strategic plan period in 2014.

Table 3: Targets for Key Indicators (Mid-term and 2014)

Indicators	Baseline (2009)	2011	2014
Proportion health facilities that provide HIV and/or TB care that include nutrition interventions	?	40%	100%
Proportion of adults infected with HIV and TB who receive adequate supplementary feeding	?	10%	30%
Proportion of children (2 to 17 years) infected with HIV and/or TB who receive adequate supplementary feeding	?	30%	60%
Prevalence of malnutrition (underweight) among HIV infected children	?	20%	15%
Proportion of HIV infected adults with a BMI < 18.5	?	20%	15%

5.3: Research

The main role of research will be to inform and advise the Technical Working Group and stakeholders in general on the strategic decisions and policy development matters that are relevant to nutrition within the context of tuberculosis and HIV infections. The focus will be on applied research that will support the development of appropriate and affordable solutions in nutrition care and support. It will also focus on operational research that will review the performance of service delivery systems in pilot and full-scale implementation, knowledge management and review of relevant policies. The Strategic Plan will facilitate strengthening nutrition research and will support formative, applied and operational research activities in relevant institutions to realise the objectives outlined in the Plan.

6: Annex - Estimated Cost of the Strategic Plan

Strategic Intervention	Activities and Targets	Unit Cost (UGX)	Year 1 2009/10	Year 2 2010/11	Year 3 2011/12	Year 4 2012/13	Year 5 2013/14	Total
1. Strengthen advocacy and mobilise resources for nutrition in HIV and TB interventions								
1.1 Convene annual donor conferences for resource mobilisation	National 1-day meeting, 50 participants, per year	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	**15,000,000**
1.2 Convene bi-annual advocacy meetings for the nutrition, HIV and TB stakeholders	National half-day meeting, 50 participants, two per year	2,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	**20,000,000**
1.3 Develop, produce, launch and disseminate a communication strategy on nutrition in HIV and TB	Print 3,000 copies of final document	6,000	18,000,000	-	-	-	-	**18,000,000**
	National dissemination workshop 100 participants	60,000,000	60,000,000	-	-	-	-	**60,000,000**
	8 regional dissemination workshops for 40 district & media officers	15,000,000	30,000,000	90,000,000	-	-	-	**120,000,000**
	National electronic and print media messages, per quarter	40,000,000	80,000,000	160,000,000	160,000,000	160,000,000	160,000,000	**720,000,000**
1.4 Identify and support activists on nutrition in HIV and TB	Per diem; Facilitation allowances; Transport refund per year	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	**25,000,000**
Sub-total			**204,000,000**	**266,000,000**	**176,000,000**	**176,000,000**	**176,000,000**	**978,000,000**
2. Increase coverage of food supplementation for persons infected with HIV and TB								
2.1 Support production and appropriate use of RUTF based on the locally available foods for TB and HIV infected persons	Production of RUTF, per client per year	100,000	100,000,000	200,000,000	300,000,000	200,000,000	200,000,000	**1,000,000,000**

Strategic Intervention	Activities and Targets	Unit Cost (UGX)	Year 1 2009/10	Year 2 2010/11	Year 3 2011/12	Year 4 2012/13	Year 5 2013/14	Total
2.2 Promote appropriate use of the locally available foods at the household level	Targeted education at household level; facilitation and transport refund ; per district	10,000,000	500,000,000	500,000,000	500,000,000	300,000,000	200,000,000	**2,000,000,000**
2.3 Integrate food supplementation and nutrition education into home based care, TB-DOTS and ART programmes	Meetings to review and develop integration guidelines	2,000,000	10,000,000	-	-	-	-	**10,000,000**
	Produce 2,000 copies integrated guidelines	5,000	10,000,000	-	-	-	-	**10,000,000**
Sub-total			**620,000,000**	**700,000,000**	**800,000,000**	**500,000,000**	**400,000,000**	**3,020,000,000**
3. Establish and/or strengthen institutional capacity to support quality nutrition in HIV and TB interventions								
3.1 Review, update and/or develop guidelines on the essential components of nutrition in HIV and TB	TA to lead process; Two workshops of three-days duration	15,000,000	30,000,000	-	-	-	-	**30,000,000**
3.2 Produce and disseminate the guidelines through a comprehensive plan	Print 3,000 copies of final document	6,000	18,000,000	-	-	-	-	**18,000,000**
	8 regional dissemination workshops for 40 district & media officers	15,000,000	30,000,000	90,000,000	-	-	-	**120,000,000**
3.3 Recruit additional human resource at national level; fill the existing gaps at national, regional and district levels	Support adverts and interview process	5,000,000	5,000,000	5,000,000	-	-	-	**10,000,000**
3.4 Source for appropriate technical assistance on nutrition in HIV and TB	Consultancy fees; Travel costs; Per diem	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	**100,000,000**
3.5 Procure equipment and supplies for nutrition interventions and programmes	Anthropometric equipment (adult and paediatric);	1,000,000	500,000,000	500,000,000	-	300,000,000	-	**1,300,000,000**
	Supplies and reagents for nutrition monitoring	500,000	150,000,000	150,000,000	150,000,000	150,000,000	150,000,000	**750,000,000**

Strategic Intervention	Activities and Targets	Unit Cost (UGX)	Year 1 2009/10	Year 2 2010/11	Year 3 2011/12	Year 4 2012/13	Year 5 2013/14	Total
3.6 Develop standards and the regulatory framework for food products at the Ministry of Health	Meetings to develop and finalise standards	2,000,000	10,000,000	-	-	12,000,000	-	**22,000,000**
	Print 2,000 copies and distribute	5,000	10,000,000	-	-	12,000,000	-	**22,000,000**
3.7 Finalise the development, production and integration of nutrition in HIV and TB into pre- and in-service training curricula	Meetings to review and develop Guidelines and facilitate integration	6,000,000	12,000,000	12,000,000	-	-	-	**24,000,000**
3.8 Support in-service training and other capacity building activities for formal and traditional service providers	Five regional TOT; for 20 trainers per workshop	15,000,000	45,000,000	30,000,000	-	-	-	**75,000,000**
	District training, 20 participants per district	10,000,000	300,000,000	300,000,000	300,000,000	200,000,000	200,000,000	**1,300,000,000**
3.9 Facilitate participation of nutritionists at regional training workshops and conferences	Five nutritionists per year	5,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	**125,000,000**
Sub-total			**1,149,000,000**	**1,126,000,000**	**495,000,000**	**719,000,000**	**395,000,000**	**3,896,000,000**
4. Promote coordination and strengthen linkages among partners involved in food and nutrition interventions								
4.1 Integrate nutrition, HIV and TB into the existing coordination structures at national, regional and district levels	Support monthly, national coordination meetings	500,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	**30,000,000**
	Support districts to develop integrated work plans	1,000,000	90,000,000	90,000,000	50,000,000	50,000,000	50,000,000	**330,000,000**
4.2 Develop, produce and disseminate policy and implementation guidelines on nutrition in HIV and TB	Meetings to develop and finalise document	3,000,000	15,000,000	-	-	-	-	**15,000,000**
	Print and disseminate 3,000 copies	6,000	18,000,000	-	-	-	-	**18,000,000**
Sub-total			**129,000,000**	**96,000,000**	**56,000,000**	**56,000,000**	**56,000,000**	**393,000,000**

Strategic Intervention	Activities and Targets	Unit Cost (UGX)	Year 1 2009/10	Year 2 2010/11	Year 3 2011/12	Year 4 2012/13	Year 5 2013/14	Total
5. Strengthen the nutrition management information system and use of information								
5.1 Establish a data base and monitoring/ surveillance system that include nutrition in HIV and TB indicators	Equip facilities with monitoring tools (registers & report forms)	1,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	**450,000,000**
	Procure computers and accessories; software for database	2,000,000	100,000,000	100,000,000	-	-	-	**200,000,000**
5.2 Train service providers at all levels on the nutrition information management system	District training, 20 participants per district	5,000,000	250,000,000	250,000,000	150,000,000	-	-	**650,000,000**
5.3 Document best practices and periodically share experiences and technical updates on nutrition in HIV and TB e.g. Annual & Quarterly Bulletins	Print 1,000 copies of Quarterly Bulletin	3,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	**60,000,000**
	Print 1,500 copies of Annual Bulletin	4,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	**30,000,000**
5.4 Develop a research agenda for nutrition in HIV and TB	Bi-annual technical meeting to review research priorities	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	**10,000,000**
	Commission one study per year (policy or operational research)	150,000,000	150,000,000	150,000,000	150,000,000	150,000,000	150,000,000	**750,000,000**
Sub-total			**610,000,000**	**610,000,000**	**410,000,000**	**260,000,000**	**260,000,000**	**2,150,000,000**
6. Promote and support meaningful community involvement in nutrition within context of HIV and TB								
6.1 Develop and produce a community information package on nutrition in HIV and TB	TA to lead process; Three workshops of three-days duration	25,000,000	25,000,000	-	-	-	-	**25,000,000**
	Print 3,000 copies of final document	6,000	18,000,000	-	-	-	-	**18,000,000**

Strategic Intervention	Activities and Targets	Unit Cost (UGX)	Year 1 2009/10	Year 2 2010/11	Year 3 2011/12	Year 4 2012/13	Year 5 2013/14	Total
6.2 Train the VHT and other existing networks on nutrition in HIV and TB	Train at sub-county; 100 per district per year	10,000,000	400,000,000	400,000,000	200,000,000	200,000,000	-	**1,200,000,000**
6.3 Train PLHIV and caretakers on nutrition in HIV and TB	District training, 40 participants per district	5,000,000	200,000,000	200,000,000	100,000,000	-	-	**500,000,000**
6.4 Support community-based nutrition education including the use of demonstration gardens and agricultural plots	Parish-level demonstration gardens and plots	500,000	75,000,000	150,000,000	150,000,000	250,000,000	250,000,000	**875,000,000**
Sub-total			**718,000,000**	**750,000,000**	**450,000,000**	**450,000,000**	**250,000,000**	**2,618,000,000**
7. Promote regular monitoring and evaluation of nutrition in HIV and TB activities								
7.1 Monitor for the appropriate use of guidelines and standards	Linked to technical support supervision	-	-	-	-	-	-	**-**
7.2 Conduct technical support supervision / mentoring visits and regional meetings	Bi-annual supervision visits; 90 districts	1,000,000	180,000,000	180,000,000	180,000,000	180,000,000	180,000,000	**900,000,000**
	Annual regional meetings; five regions	20,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	**500,000,000**
7.3 Conduct mid-term review and evaluation of interventions	Conduct baseline survey	200,000,000	200,000,000	-	-	-	-	**200,000,000**
	Mid-term programme review	200,000,000	-	-	200,000,000	-	-	**200,000,000**
	Programme evaluation	300,000,000	-	-	-	-	300,000,000	**300,000,000**
Sub-total			**480,000,000**	**280,000,000**	**480,000,000**	**280,000,000**	**580,000,000**	**2,100,000,000**
Total			**3,910,000,000**	**3,828,000,000**	**2,867,000,000**	**2,441,000,000**	**2,117,000,000**	**15,155,000,000**

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