



USAID
FROM THE AMERICAN PEOPLE



NULIFE—FOOD AND NUTRITION INTERVENTIONS FOR UGANDA

NUTRITIONAL ASSESSMENT, COUNSELING, AND SUPPORT



AIDSTAR-One
AIDS SUPPORT AND TECHNICAL ASSISTANCE RESOURCES

AUGUST 2011

This publication was produced by the AIDS Support and Technical Assistance Resources (AIDSTAR-One) Project, Sector I, Task Order I, USAID Contract # GHH-I-00-07-00059-00, funded January 31, 2008.

NULIFE—FOOD AND NUTRITION INTERVENTIONS FOR UGANDA

**NUTRITIONAL ASSESSMENT, COUNSELING, AND
SUPPORT**

AIDS Support and Technical Assistance Resources Project

AIDS Support and Technical Assistance Resources, Sector I, Task Order 1 (AIDSTAR-One) is funded by the U.S. Agency for International Development under contract no. GHH-I-00-07-00059-00, funded January 31, 2008. AIDSTAR-One is implemented by John Snow, Inc., in collaboration with Broad Reach Healthcare, Encompass, LLC, International Center for Research on Women, MAP International, Mothers 2 Mothers, Social and Scientific Systems, Inc., University of Alabama at Birmingham, the White Ribbon Alliance for Safe Motherhood, and World Education. The project provides technical assistance services to the Office of HIV/AIDS and USG country teams in knowledge management, technical leadership, program sustainability, strategic planning, and program implementation support.

Recommended Citation

Bergmann, Heather, and Maryanne Stone-Jiménez. 2011. *NuLife—Food and Nutrition Interventions for Uganda: Nutritional Assessment, Counseling, and Support*. Arlington, VA: USAID's AIDS Support and Technical Assistance Resources, AIDSTAR-One, Task Order 1.

Abstract

AIDSTAR-One conducted an assessment of the NuLife Food and Nutrition Interventions for Uganda program in January and February 2011 in order to examine implementation of the NuLife program's nutritional assessment, counseling, and support processes using a quality improvement approach. The resulting assessment report identifies NuLife's strengths and remaining challenges, identifies activities that have benefited from the quality improvement approach, documents lessons learned and promising practices, and outlines what is needed to ensure the sustainability and impact of NuLife's achievements. Information gathered in this assessment may help inform current and future nutrition initiatives and offers suggestions for other U.S. President's Emergency Plan for AIDS Relief-supported countries to consider for integrating and scaling-up of nutrition interventions into HIV treatment, care, and support services.

Acknowledgments

The authors are grateful for the generous support and information provided by Margaret Kyenkya, Hanifa Bachou, Augustine Kigoonya, Godfrey Senkaba, and the other staff of the NuLife Project, who were willing to address many questions and provide guidance before, during, and after field work in Uganda. Thanks to Eve Namisango, Geoffrey Banga, Jeniffer Kataike, Fred Kisuli, and Clare Nampijja, who were integral to the data collection teams. Jenipher Kyamazima, Victoria Masembe, and the AIDSTAR-One office in Kampala were invaluable in their logistical support. Many thanks also to Justine Mirembe and Alfred Boyo at the U.S. Agency for International Development (USAID)/Uganda, and to Amie Heap, Timothy Quick, and Shyami De Silva at USAID/Washington for their assistance, advice, and helpful feedback, and to Pamela Ching with the Centers for Disease Control and Prevention. The authors are indebted to the stakeholders and project partners throughout Uganda who provided valuable input including Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance (ACDI/VOCA) and the Ministry of Health. Thanks also to Tonja Cullen and Nigel Livesley with the University Research Corporation for sharing their knowledge and input. The authors are most grateful to the people of Uganda who shared their knowledge and experience.

Cover photo: Community volunteer using mid-upper-arm circumference to assess a malnourished child.

AIDSTAR-One

John Snow, Inc.

1616 Fort Myer Drive, 11th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

E-mail: info@aidstar-one.com

Internet: aidstar-one.com

CONTENTS

- Acronyms..... v
- Executive Summary vii
- Background..... 11
 - Introduction 11
 - Purpose of this Assessment 11
 - Ugandan Context..... 12
 - NuLife Program Description..... 13
- Assessment Objectives, Design, and Methodology 17
 - Assessment Objectives..... 17
 - Site Selection..... 17
 - Methods, Materials, and Informants 18
 - Site Summary 19
- Assessment Findings: Successful Practices for Quality Improvement in Nutrition Services for People Living with HIV 21
 - Promote Task Shifting to Share Responsibilities 22
 - Integrate Routine Nutrition Assessment into HIV Treatment, Care, and Support Programs 23
 - Enhance Nutrition Counseling..... 25
 - Improve Management of Ready-to-Use Therapeutic Food 25
 - Emphasize Follow-Up and Referral 27
 - Promote Community Links with Facilities..... 29
 - Promote Health and Nutrition Education 30
 - Support Training, Coaching, and Supervision 31
 - Improve Monitoring and Record Keeping 33
 - Collaborate with Stakeholders 34
- Assessment Limitations 37
- Recommendations and Strategies for Future Programming..... 39
 - Near-Term Recommendations for Programs..... 39
 - Longer-Term Recommendations for Programs 42
- Conclusion..... 45
- References 47

ACRONYMS

ACDI /VOCA	Agricultural Cooperative Development International/ Volunteers in Overseas Cooperative Assistance
ART	antiretroviral therapy
ARV	antiretroviral
CHW	community health worker
DHO	District Health Office
FGD	focus group discussion
HC	health center
HCI	Health Care Improvement Project
HSSP III	Health Sector Strategic Planning III
IMAM	Integrated Management of Acute Malnutrition
MOH	Ministry of Health
MUAC	mid-upper-arm circumference
OTC	outpatient therapeutic care
OVC	orphans and vulnerable children
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission
PREFA	Protecting Families Against HIV/AIDS
QI	quality improvement
RUTF	ready-to-use therapeutic food
TASO	The AIDS Support Organization
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
USG	U.S. Government
WHO	World Health Organization

EXECUTIVE SUMMARY

AIDSTAR-One conducted an assessment of the NuLife Food and Nutrition Interventions for the Uganda program in January and February 2011 at the request of the U.S. President's Emergency Plan for AIDS Relief Care and Support Technical Working Group and with the support and participation of the U.S. Agency for International Development (USAID) Mission in Uganda and NuLife staff. The NuLife program's goal is to improve the nutritional and health status of people living with HIV (PLHIV) and people affected by HIV by increasing the utilization, adherence to, and efficacy of antiretroviral treatment through nutritional assessment, counseling, and support via provision of therapeutic foods. This assessment examined the NuLife program in Uganda in order to:

- Identify programmatic practices that benefited from NuLife's *Seven Steps to Nutrition Care*, which utilizes a quality improvement (QI) approach to integrate nutrition into existing HIV services
- Ascertain the program's strengths and challenges
- Document lessons learned and promising practices
- Outline the processes needed to strengthen the sustainability and impact of NuLife's achievements.

This information will help inform future nutrition initiatives in HIV treatment, care, and support programs for USAID/Uganda, the Government of Uganda, as well as other development partners.

The protocol and tools used were adapted from a previous AIDSTAR-One assessment of the Academy for Educational Development's Food by Prescription program in Kenya (Gerberg and Stansbury 2010). In Uganda, 12 geographically diverse NuLife program sites were selected as a sample to represent the earlier phase I (7 of 34 sites selected) and later phase II (5 of 20 sites selected) of the program. To gather information, the assessment carried out individual interviews with providers, clients, and key informants and also facilitated focus group discussions with both providers and clients (adult clients and adult caregivers of pediatric clients). A total of 136 clients and 111 providers were interviewed, while key informant interviews were conducted with an additional 31 individuals.

This assessment identified a number of successes in the NuLife program, including the following.

Integrating nutrition counseling and education into existing HIV treatment, care, and support services is possible among different levels of staff members. NuLife was able to support programs to quickly implement nutrition-related task sharing, group education, and individual counseling provided both in facilities and in communities using a QI approach. Community health workers (CHWs) have become better able to identify malnourished clients, have improved their follow-up, and have created linkages between community and facility.

The use of the mid-upper-arm circumference (MUAC) measurements with tapes has increased the routine assessment and categorization of clients, both at NuLife facilities and in communities with trained CHWs and outreach volunteers. The availability of the job tools, while in need of improvement and increased

availability, has enabled different types of personnel in the program to participate and thus to provide nutrition services to a larger number of clients and community members.

The ready-to-use therapeutic food (RUTF) prescribed in the facilities has dramatically improved the nutritional status and the quality of life for clients. Providers are grateful for the training and tools provided by NuLife and the ability it gives them to provide more comprehensive services to better meet the needs of PLHIV. Clients appreciate their returned strength, their improved ability to fight infections, their ability to better adhere to drug regimens, and their ability to participate in their own care.

This assessment of the NuLife program identified 10 successful practices and ways to address programmatic challenges that may be used to inform future nutrition services for PLHIV. The practices and methods, discussed in detail in the report, are:

- Promote task shifting to share responsibilities
- Integrate routine nutrition assessment into HIV treatment, care, and support programs
- Enhance nutrition counseling
- Improve management of RUTF
- Emphasize follow-up and referral
- Promote community links with facilities
- Promote health and nutrition education
- Support training, coaching, and supervision
- Improve monitoring and record keeping
- Collaborate with stakeholders.

Challenges faced by NuLife—which are common in other health programs—are related to maintaining cadres of trained staff due to high turnover rates in facilities and community-based volunteer programs and reaching clients with services in remote areas. Specific challenges include 1) engaging the Ministry of Health (MOH), as their leadership could help address many issues—including support for trainings, allocation of resources, and integration of monitoring forms; 2) establishing ongoing or refresher trainings for both facility-based staff and community-based volunteers; 3) needing appropriate standards of knowledge and skills for the different providers involved in service provision; and 4) adding to the burden on staff by requiring the collection of additional client level data not routinely gathered in HIV information systems to monitor implementation and impact of nutrition services.

From these successes and challenges other programs can learn from the NuLife experience using a QI approach to integrate nutrition into existing HIV programs. Routine nutrition services, including patient assessment, categorization, counseling, and education, should and can be integrated into HIV treatment, care, and support programs. Recommendations for programs have emerged from the assessment findings, as follows:

1. Task shifting and/or sharing can facilitate integration, increasing the points at which clients may be assessed, categorized, counseled, and educated in facilities or communities linked to RUTF facilities. Clients can then be prescribed RUTF at facilities, if eligible.

2. Knowledge, skills, and training need to be imparted to salaried personnel and volunteers who share nutrition counseling and education responsibilities, with the difference between counseling and education reflected by focusing on the differing knowledge and skills the two activities require.
3. Routine coaching, on-site continuing professional education, and refresher trainings are important parts of ongoing support and supervision.
4. Including RUTF in the essential medicine list would increase its availability to programs and would support its incorporation into existing supply chain mechanisms.
5. Leadership and advocacy at all levels, from national to local, will help sustainable planning for ongoing and future nutrition services and bolster a sense of ownership in the public sector.
6. Expanding staff training on routine monitoring and record keeping would facilitate the QI process.
7. To address sustainability and maximize use of available resources, stakeholders should collaborate to offer complementary services. Facilities should work with the MOH, local government, and nongovernmental organizations to obtain uninterrupted commitment for implementing future integrated and expanded nutrition and HIV activities. Coordination of this work with other agriculture and education programs could help make the shift from primarily treating malnourished individuals (both HIV-positive and HIV-negative) to preventing malnutrition.
8. Preventing malnutrition will extend the benefits of nutrition services to additional clients, as not all malnourished clients will meet clinical requirements for treatment with RUTF. Focusing on prevention will diminish the need for treatment of malnutrition, both in initial cases and future relapse.

BACKGROUND

INTRODUCTION

HIV, food insecurity, and malnutrition are interrelated phenomena, particularly for people living with HIV (PLHIV). HIV contributes to malnutrition by reducing food intake and nutrient absorption, thus impacting quality of life, ability to adhere to treatment, and clinical response. A healthy diet can improve quality of life, reduce the susceptibility to opportunistic infections, and increase treatment effectiveness. Food insecurity can raise HIV risk as it may lead individuals to adopt risky survival strategies, such as exchanging sex for food or money or involvement in crime, drug abuse, or child labor—behaviors that can contribute to an increase in the spread of HIV. This interaction between HIV and malnutrition is underlined in *The Nutritional Care and Support for People Living with HIV/AIDS in Uganda: Guidelines for Service Providers*, which reinforces the importance of providing nutrition assessment, counseling, and support to PLHIV and outlines simple actions people can take to improve their nutrition, overall health, and quality of life (The Republic of Uganda 2003).

NuLife Food and Nutrition Interventions for Uganda is a three-year program (with a six months extension) funded by the President’s Emergency Plan for AIDS Relief (PEPFAR) through the U.S. Agency for International Development (USAID) and designed to support the Ministry of Health (MOH) and its development to better integrate nutrition into HIV programs. Led by University Research Co., LLC, and its subcontractors, Save the Children and Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance (ACDI/VOCA), the program was launched in February 2008 with the goal of providing technical leadership and financial support to develop and integrate a full range of nutrition interventions, including ready-to-use therapeutic food (RUTF), into existing HIV treatment, care, and support programs in Uganda. In addition to improving the nutritional and health status of PLHIV, NuLife aims to increase the utilization, adherence to, and efficacy of antiretroviral therapy (ART) through nutritional assessment, counseling, and provision of therapeutic foods.

PURPOSE OF THIS ASSESSMENT

This assessment was designed to examine the NuLife program in Uganda and its use of a quality improvement (QI) process in order to understand the program’s strengths and challenges, determine which of its activities benefited from the QI approach (specifically, the NuLife *Seven Steps to Nutrition Care*), document lessons learned and promising practices, and outline processes that strengthened the sustainability and impact of NuLife’s achievements. This information will help inform future nutrition initiatives by USAID/Uganda and the Government of Uganda, and offers suggestions for other PEPFAR-supported countries to consider in order to roll-out the integration of nutrition interventions into HIV treatment, care, and support services. AIDSTAR-One conducted this assessment at the request of the PEPFAR Care and Support Technical Working Group and with the support and participation of the USAID Mission in Uganda and NuLife staff.

UGANDAN CONTEXT

FOOD INSECURITY, MALNUTRITION, AND THE LINK WITH HIV

Despite Uganda's fertile soils and adequate food supplies, food insecurity and malnutrition remain significant challenges that impact the country's human development and economic growth (U.S. Government Working Document 2010). An estimated 40 percent of child deaths are attributable to malnutrition (The Republic of Uganda 2005), with rural children facing twice the risk of malnutrition as their urban counterparts (U.S. Government Working Document 2010). Among very young children (those under age five) malnutrition contributes to 60 percent of deaths (Uganda Bureau of Statistics and Macro International Inc. 2007). Among this age group, 38 percent of children are stunted, 16 percent are underweight, and 6 percent are acutely malnourished (Uganda Bureau of Statistics and Macro International Inc. 2007). Anemia is widespread affecting 50 percent of women and 73 percent of children under five years, while 20 percent of children under five and 19 percent of women are vitamin A deficient. Undernourishment is an even more common problem. According to the most recent national data available, 21 percent of the total population was undernourished (Food and Agriculture Organization of the United Nations 2010).

Household food security is a broader concept that puts malnutrition and undernourishment in an economic and social context. Food availability and access alone are insufficient to ensure food security because many households with adequate access to food to meet their caloric needs still suffer from poor nutritional status because diets lack nutritional variety. A recent study showed that 6.3 percent of households were food insecure and 21.3 percent were moderately food insecure and at risk of becoming food insecure if conditions deteriorated (United Nations World Food Programme 2006). The degree and the causes of food insecurity and malnutrition vary in Uganda by region, season of the year, and previous civil unrest.

Given the high levels of malnutrition and undernutrition, it is especially important that food and nutritional care and support for PLHIV be integrated into existing HIV treatment, care, and support services to improve the quality of life of PLHIV (USAID and NuLife 2009). The United Nations estimates that just over 1.1 million people in Uganda are living with HIV, 120,000 of whom are children age 14 or under (Government of Uganda 2010). While the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimates HIV prevalence among adults has declined from 6.4 percent (in 2004) to 5.4 percent (in 2008), some antenatal care sites have reported increases in HIV prevalence (UNAIDS and World Health Organization [WHO] 2009).

Many households affected by HIV in Uganda experience reduced food access as a result of the impact HIV has on their overall household resources. HIV impacts all three components of food security: availability, accessibility, and utilization. The Uganda *Health Sector Strategic Planning III (HSSP III) 2010/11-2014/15* reports that HIV increases the risk of food insecurity by impacting productive labor, income, and food storage. Illness and death due to HIV reduces household labor, even among those who are healthy, because healthy members often shift their labor to care for sick household members. Earnings and savings are often diverted to meet health care and funeral costs.

HUMAN RESOURCE LIMITATIONS

According to Uganda's *HSSP III*, the country has a shortage of human resources for health and a skills imbalance in the existing work force. Nearly half of the established positions are vacant, with rural populations more severely affected compared to urban areas. Health workers are also unevenly distributed between the public and private sectors. As reported in the most recent Population and

Housing Census, nearly 70 percent of medical doctors and dentists, 80 percent of pharmacists, and 40 percent of nurses and midwives are in urban areas, which serve just 13 percent of the population (Uganda Bureau of Statistics 2006). Health workers are also unevenly distributed between the public and private sectors. Over the four-year course of the *HSSP III*, the government's focus will be on strengthening human resources through attraction, motivation, and remuneration of human resources relevant to the needs of Uganda, together with the promotion of professionalism among health workers. As nutrition has historically been regarded as a low priority in the health sector and has received low commitment among stakeholders, allocations of human and financial resources have been too low to enable nutrition interventions to be carried out at all levels (Government of Uganda MOH 2010).

THE MINISTRY OF HEALTH AND DISTRICT RESTRUCTURING

In Uganda's MOH, the Nutrition Unit is based in the Division of Child Health, which is under the Department of Community Health. Currently, the Nutrition Unit has four technical staff, based in Kampala. One other nutrition staff is based in the AIDS Control Programme and another in the Division of Reproductive Health. The MOH 2010 restructuring proposal recommends elevating the Nutrition Unit to a division within the Department of Community Health and adding 10 technical staff, including a statistician/monitoring and evaluation officer based in Kampala (FANTA-2 2010). Under the new structure, there will also be a senior nutritionist and a nutritionist at all referral hospitals to focus on the hospitals' curative and rehabilitation services and oversee some nutrition promotion through community outreach.

The provision of health services in Uganda has been decentralized, with 111 districts and health subdistricts playing key roles in the delivery and management of health services, with no intermediate administrative (e.g., provincial or regional) level. Over time, the numbers of districts and lower-level administrative units have continuously increased, with the aim of making administration and delivery of social services easier. In a country where budgetary allocation to the health sector has not been growing as expected, the regular creation of new districts will bring further strain to the health sector if the policy of one general hospital per district is maintained.

Health services are structured into general hospitals, national referral hospitals, regional referral hospitals, and four levels of health centers (HCs): HC-I through HC-IV. The higher level health centers provide increasingly comprehensive services, but lower level health facilities provide an important link between facilities and communities (Government of Uganda MOH 2010).

This decentralized approach brings with it several serious drawbacks, including the following:

- Unclear roles and responsibilities among district health leaders
- Inadequate supervision of districts by the central level and of lower levels by districts
- Inadequate logistics management information system, which can impede District Health Office (DHO) functioning, especially in newly created districts
- Inadequate funding to districts from the MOH and inadequate ability to raise local revenues.

NULIFE PROGRAM DESCRIPTION

NuLife Food and Nutrition Interventions for Uganda was launched in 2008 to provide technical leadership and financial support in the development and integration of nutrition interventions,

including RUTF, into HIV treatment, care, and support programs in Uganda. In addition to improving the nutritional and health status of PLHIV, NuLife aims to increase the utilization, adherence to, and efficacy of ART through nutritional assessment, counseling, and provision of therapeutic foods.

To achieve these goals, the program is focusing on three major objectives:

1. Provision of technical support to the MOH and U.S. Government (USG) implementing partners to integrate food and nutrition interventions into HIV treatment, care, and support programs
2. Development of high-quality, low-cost, nationally acceptable RUTF made from locally available foods
3. Establishment of a distribution system (supply chain) for effective production and delivery of RUTF to acutely malnourished people living with or affected by HIV.

NuLife beneficiaries include:

- PLHIV, including adults and children in ART and care programs
- Pregnant and lactating women living with HIV, as well as non-lactating mothers of children up to six months of age and infants who are enrolled in programs for prevention of mother-to-child transmission (PMTCT) of HIV
- Orphans and vulnerable children (OVC), including vulnerable children identified through and linked to PMTCT programs, community outreaches, and other OVC programs, as well as children born to a parent living with HIV and nutritionally vulnerable children identified in households of PLHIV.

NuLife has provided support to 54 sites, a reduction in number from the originally proposed 120 sites to allow the project to invest greater resources in each site, thereby increasing the potential sustainability of nutritional programming and positive results within sites. The 54 sites are spread throughout the country. Eight sites are regional referral hospitals, twenty-eight are district hospitals, and sixteen are HC-IVs. There are two special sites in which the Health Care Improvement Project (HCI) was not already operating: 1) Baylor College Centre of Excellence for Pediatric HIV programming, and 2) Mwanamugimu Nutrition Unit, a national referral unit for treatment of malnutrition in the country.

NuLife contributed to the development of the national Integrated Management of Acute Malnutrition (IMAM) guidelines. The guideline-supported interventions are paving the way for the MOH to implement IMAM throughout the healthcare system. As part of its contribution to the roll-out of IMAM, NuLife offers a mechanism for stakeholders to share best practices and lessons learned, and it supports the MOH in building consensus by developing strategies and protocols in nutrition and HIV. The MOH Sub-committee on Nutrition includes seven technical working groups focused on different nutrition-related issues. NuLife has seconded one staff person in the Nutrition Unit to ensure timely and efficient management of the sub-committee activities and contribute financial support for meetings, consultations and workshops, and equipment.

NuLife implements a QI process to integrate nutrition activities based on a process developed by HCI that includes facility-level multidisciplinary teams trained to implement and monitor a QI approach to improve services, monthly coaching visits to facility teams, and quarterly team meetings, during which they share their successes and challenges as a continuous learning process. NuLife works with the facility QI team and MOH regional coordinators. After extensive consultations with

the MOH, district officials, collaborating partners, and staff from health facilities, NuLife developed the *Seven Steps to Nutrition Care*, which separates the package of nutrition services into seven steps for ease of training and implementation of QI activities. In order to increase the number of staff capable of participating in nutrition program activities, technical support to health facilities took place through residential training of health workers over a five-day period.

The *Seven Steps to Nutrition Care* are as follows:

1. *Assessment:* All HIV-positive clients are assessed at each visit.
2. *Categorization:* The nutrition status is recorded on the care card for each PLHIV.
3. *Counseling:* All malnourished clients receive counseling.
4. *Food by Prescription:* All moderately and severely malnourished clients who pass the appetite test receive RUTF.
5. *Follow-up:* All clients receiving RUTF receive follow-up at the facility.
6. *Community Links:* Links are established between community and facility; clients are linked to community-based services and programs (e.g., follow-up for treatment, food security, and sustainable livelihoods).
7. *Education:* All PLHIV receive education on good nutrition and hygiene.

In response to a USAID/Uganda technical directive, the NuLife strategic approach was adjusted to:

- Increase its support to MOH to finalize the IMAM guidelines
- Provide ongoing and more in-depth technical support to selected health facilities
- Institutionalize best practices and ensure compliance with IMAM standards once they are issued
- Strengthen links between facility and community
- Ensure a sustainable supply of RUTF
- Strengthen the short-term supply chain system and develop an action plan for the long-term supply chain
- Introduce fortified blended foods at two facilities
- Pilot the promotion of sustainable livelihoods (creating a household livelihood using accessible resources) in one district.

NuLife has established strong partnerships with numerous USG implementing partners, including those being supported by HCI as part of the MOH QI work. In addition to HCI, NuLife partners include The AIDS Support Organization (TASO); Northern Uganda Malaria and HIV/AIDS & Tuberculosis; Elizabeth Glazer Pediatric AIDS Foundation; Clinton Foundation; Joint Clinical Research Centre; Protecting Families Against HIV/AIDS (PREFA); Catholic Relief Services-AIDS Relief; Baylor College of Medicine Uganda; National Community of Women Living with HIV/AIDS; International Medical Corps; Action Against Hunger; Strengthening of Tuberculosis and AIDS Response in Eastern Uganda; Strengthening of Tuberculosis and AIDS Response in East Central Uganda; Supporting Public Sector Workplaces to Expand Action and Responses Against HIV & AIDS; The Uganda Women's Effort to Save Orphans; WHO; United Nations Children's Fund (UNICEF); United Nations World Food Programme; and Save the Children in Uganda.

ASSESSMENT OBJECTIVES, DESIGN, AND METHODOLOGY

ASSESSMENT OBJECTIVES

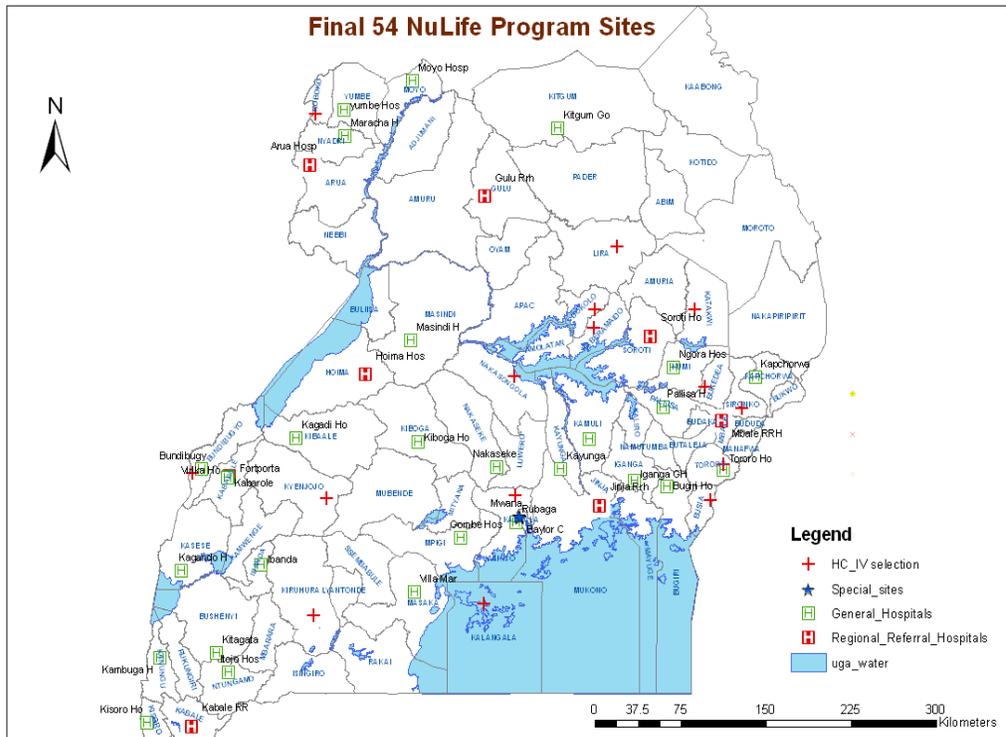
The assessment reviewed NuLife’s progress in terms of its three primary project objectives: 1) provide technical support to the MOH and USG partners to integrate a food and nutrition intervention into HIV treatment, care, and support programs; 2) develop a high-quality, low-cost, nationally acceptable RUTF; and 3) establish a supply chain system for delivery of RUTF.

The assessment itself had three aims. The first was to identify those activities that have benefitted from NuLife’s QI approach and identify the factors that helped or hindered results. This included identifying effective practices that warrant replication. The second aim was to document NuLife processes to determine sustainability and gauge the impact of their achievements. Finally, the assessment sought to identify lessons learned and best practices to inform future nutrition programs sponsored by USAID/Uganda, the Government of Uganda, and for other PEPFAR-supported countries to consider in order to integrate and scale-up nutrition interventions into HIV treatment, care, and support services.

SITE SELECTION

Care was taken to select facilities that included both NuLife phase I and II implementation sites in order to include perspectives from sites that have been implementing services for different lengths of time. The facilities covered a broad range of levels (regional referral hospitals, general hospitals, mission hospitals, and HC-IVs) and were chosen to ensure geographical coverage from the West Nile, South West, Central, Northern, Western, Eastern, and Kampala regions.

Site Name	Region	NuLife Implementation Phase
Bukedea HC-IV	Eastern	II
Gulu Regional Referral Hospital	Northern	I
Ishaka Adventist Hospital	Western	II
Jinga Regional Referral Hospital	Eastern	II
Kayunga General Hospital	Central	I
Kisoro General Hospital	Western	I
Kyegegwa HC-IV	Mid West	I
Masindi General Hospital	Northern	I
Pallisa General Hospital	Eastern	II
Rubaga General Hospital	Central	I
Virika General Hospital	Mid West	I
Yumbe General Hospital	West Nile	II



METHODS, MATERIALS, AND INFORMANTS

Three assessment teams, comprising three to four members each and including representation from AIDSTAR-One and NuLife, traveled to the Western, Northern, and Eastern regions, respectively. AIDSTAR-One contracted transcribers for each data collection team. NuLife notified the sites and interpreters of scheduled visits using a joint AIDSTAR-One/NuLife letter of introduction. The assessment teams tested the data collection instruments at three pilot sites near Kampala. Focus group discussions (FGDs) for both clients (adult PLHIV and adult caregivers of pediatric clients) and providers were arranged by clinic staff. When site visits occurred on days that were not NuLife clinic service days, 5 to 10 clients were invited to participate in interviews or FGDs. AIDSTAR-One covered the cost of refreshments and transportation for these clients. The data collection teams accompanied clinic staff on outreach visits when outreach was scheduled.

The information used in this report was collected through the following means. Information was gathered from a desk review of key documents. Clinic information was obtained from 12 clinic reviews in the Western, Northern, and Eastern regions of Uganda. Client information was obtained from 43 individual interviews (67 percent female, 33 percent male) and 12 FGDs with adult clients and caregivers of pediatric clients (72 percent female, 28 percent male). Provider information was obtained from 31 individual interviews (68 percent female, 32 percent male) and 12 FGDs with providers, including nutrition focal persons, QI team leaders, counselors, clinicians, nurses, and community health workers (CHWs; 74 percent female, 26 percent male).

Key informants were interviewed as well, with 31 interviews conducted with the MOH, USAID, NuLife partners (ACDI/VOCA, Reco Industries), and other stakeholders. The stakeholders consisted of HCI, TASO, district health officers, medical superintendents, and NuLife providers at facilities (community coordinators, clinical officers, medical superintendents, nutrition focal persons,

nursing officers, QI team leads, and records assistants), as well as NuLife staff. The table below enumerates by type of informant how many persons were interviewed at each site.

SITE SUMMARY

Site Name	Phase	Clients				Providers			
		Individual		FGDs		Individual		FGDs	
		F	M	F	M	F	M	F	M
Bukedea HC-IV	II	3	0	9	0	1	2	4	1
Gulu Regional Referral Hospital	I	2	2	5	2	3	1	3	0
Ishaka Adventist Hospital	II	4	0	14	5	1	1	0	0
Jinga Regional Referral Hospital	II	3	1	4	0	1	1	7	5
Kayunga General Hospital	I	3	1	8	1	4	0	4	3
Kisoro General Hospital	I	2	0	4	2	0	1	9	4
Kyegegwa HC-IV	I	2	1	5	6	0	1	3	3
Masindi Hospital	I	1	3	6	4	4	0	9	0
Pallisa General Hospital	II	1	3	0	0	1	1	5	2
Rubaga General Hospital	I	4	0	3	0	3	0	4	0
Virika General Hospital	I	2	1	6	3	1	1	6	1
Yumbe General Hospital	II	2	2	3	3	2	1	5	2
Subtotals		29	14	67	26	21	10	59	21
		43		93		31		80	
Total Clients and Providers		136				111			

ASSESSMENT FINDINGS: SUCCESSFUL PRACTICES FOR QUALITY IMPROVEMENT IN NUTRITION SERVICES FOR PEOPLE LIVING WITH HIV

NuLife has achieved the goal of integrating routine nutrition assessment into HIV treatment, care, and support programs by:

- Training facility-based workers and CHWs
- Strengthening links between health facilities and communities
- Providing coaching support in the form of supportive supervision to QI teams through close collaboration with HCI and the MOH Quality of Care team, mobilizing USG partners
- Providing commodities such as RUTF, anthropometric equipment, job aids, record keeping tools, and patient tracking tools.

No major differences were noted between phase I and II sites, suggesting the NuLife program has quickly adapted lessons learned from phase I and scaled up implementation at phase II sites and systematically monitors and ensures quality of services across sites.

This assessment of the NuLife program identified 10 successful practices and ways to address programmatic challenges that may be used to inform future nutrition services for PLHIV. These practices and challenges parallel many of the findings from the AIDSTAR-One assessment of the Academy for Educational Development's Food by Prescription program in Kenya and from the Nutrition Assessment, Counseling, and Support meeting held in September 2010 in Jinja, Uganda (Gerberg and Stansbury 2010, FANTA-2 2011). The 10 practices and methods, discussed in detail in this report, are:

- Promote task shifting to share responsibilities
- Integrate routine nutrition assessment into HIV treatment, care, and support programs
- Enhance nutrition counseling
- Improve management of RUTF
- Emphasize follow-up and referral

- Promote community links with facilities
- Promote health and nutrition education
- Support training, coaching, and supervision
- Improve monitoring and record keeping
- Collaborate with stakeholders.

PROMOTE TASK SHIFTING TO SHARE RESPONSIBILITIES

In Uganda, non-nutrition health staff with nutrition responsibilities in the public sector are typically overworked and must multitask between responsibilities, according to a 2010 FANTA-2 report. The resulting low staff retention and frequent recruitment lead to a recurrent need for training (FANTA-2 2010). Fostering partnerships and collaboration between the public and private sectors are possible solutions to mitigate workload, to enhance on-the-job training, and to conduct continuous medical education sessions. Task shifting or task sharing can increase the number of providers who are implementing all but one of the *Seven Steps*: 1) *Assessment*—all HIV-infected clients are assessed at each visit, 2) *Categorization*—the nutrition status is recorded on the care card for each person living with HIV, 3) *Counseling*—all malnourished clients receive counseling, 5) *Follow-up*—all clients receiving RUTF receive follow-up at the facility, 6) *Community Links*—links are established between community and facility; clients are linked to community-based services and programs, and 7) *Education*—all PLHIV receive education on good nutrition and hygiene. The fourth step, *Food by Prescription*, must be completed by clinical staff to prescribe medication. When staff are given the necessary skills and knowledge and when tasks are coordinated and complementary, responsibilities can be shared by clinical and nonclinical staff.

Task shifting/sharing can increase coverage of nutrition-related tasks by making more efficient use of available human resources and quickly increasing the capacity of expanding nutrition programs. In NuLife, task shifting/sharing is common, with 94 percent of providers reporting that task sharing occurs at their sites. To ensure quality of services for all staff, NuLife has developed a set of standard training materials and uses adult training methodologies to build the technical capacity and skills of health workers through its *Seven Steps to Nutrition Care* QI approach, thus allowing for task shifting without compromising services.

At the 12 NuLife sites participating in the assessment, HIV care and support services are offered on an average of three days per week. Of the 31 providers interviewed, the average daily time dedicated to nutrition services was 5.5 hours per staff person, demonstrating high client load and demands on staff time. A possible explanation is that perhaps the nutrition intervention has been so integrated into their routine activities at the HIV clinic that it is a challenge for providers to separate or account for their time spent on nutrition.

At these sites, key nutrition activities such as assessment, categorization, and counseling are delivered by 87 percent of the expert clients/volunteers and 81 percent of the CHWs besides clinical officers and enrolled nurses and counselors. Outreach services are provided equally by both clinic staff and CHWs. The involvement of volunteers resulted in an increase in case identification and improved the community-facility link.

INTEGRATE ROUTINE NUTRITION ASSESSMENT INTO HIV TREATMENT, CARE, AND SUPPORT PROGRAMS

The first two QI steps in the *Seven Steps to Nutrition Care* are: 1) *Assessment*—all HIV-positive clients are assessed at each visit; and 2) *Categorization*—nutrition status is recorded on the care card for each person living with HIV. To improve clinical outcomes for PLHIV, NuLife uses a targeted and routine mid-upper-arm circumference (MUAC) to assess and record nutrition status at each clinic visit. Use of MUAC has helped to identify those in the priority groups for nutrition support within HIV treatment, care, and support programs. As mentioned previously, the priority groups include 1) PLHIV, including adults and children in ART and care programs; 2) pregnant and lactating women living with HIV, as well as non-lactating mothers of children up to six months of age and infants who are enrolled in PMTCT programs; and 3) OVC, including vulnerable children identified through and linked to PMTCT programs, community outreaches, and other OVC programs, as well as children born to a parent living with HIV and nutritionally vulnerable children identified in households of PLHIV.

“Service integration is a concept now encouraged by MOH, geared at attaining a more holistic approach to health service delivery.”

—Key informant interview (KII), Yumbe

“We do receive ongoing counseling every time we come for [antiretroviral] refills and there are some assessments done and other [services] done the same day.”

—Client FGD, Bukedea

Nutrition assessment at NuLife-supported sites occurs mainly at the facility level where the project provides assessment guidelines, tools—including MUAC tapes, weighing scales, and job aids/charts—and appropriate training and quality assurance monitoring. Conducting nutrition assessments in the community, with referrals to clinical care and support, has increased case findings, resulting in larger client loads and higher demands on staff time.

In FGDs, clients described the services they receive at the facilities as being more holistic and comprehensive than they were previously, and said the routine use of MUAC has increased their awareness of their own nutrition status and/or that of the children in their care. However, clients also said it was a challenge getting transportation to the facilities. Some expressed concern about the routine nutrition assessment using MUAC, saying they did not like to use the same MUAC tape that had been used on clients who might have a skin condition, and some clients who were obviously not malnourished objected to receiving the routine measurement.

Different staff and providers conduct the nutrition assessments. During interviews, providers reported that the following types of personnel were all able to perform this task (percentages correspond to the proportion of providers who reported this type of nutrition assessment at their site):

“The biggest challenge we have so far is transport to the facility whenever we come for refill; however, we are proud to say that it is easy to receive the food and any other treatment at the facility on the same day.”

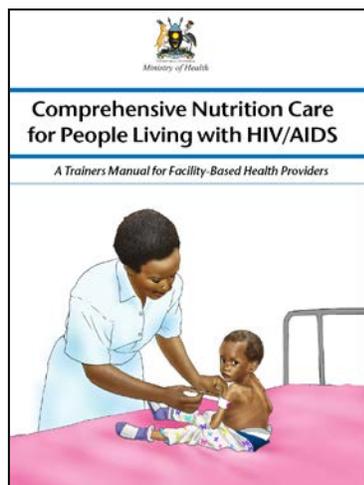
—Client FGD, Bukedea

“Health education and nutrition counseling and RUTF distribution on the same day helps us, the clients, to be reviewed by the health workers on the same day, and it is convenient for us to do other things during other days.”

—Client FGD, Bukedea

- Clinical officers (100 percent)
- Enrolled nurses and counselors (94 percent)
- Registered nurses and expert clients/volunteers (87 percent)
- CHWs (81 percent).

All but one provider interviewed performed MUAC assessments. Eligibility for enrollment in the nutrition program is determined mainly by clinical officers (97 percent) and registered nurses (77 percent). Nearly 94 percent of providers said that nutrition assessment was done according to MUAC; 55 percent mentioned both MUAC and client weight; one provider stated that edema was a factor in nutritional assessment. Nine providers measure children’s length, and 12 measure height. Likewise, all clients interviewed said that they were assessed by MUAC, 93 percent of them by MUAC together with weight. In addition, 58 percent of clients said they were asked about the food they ate. MUAC was the most common admission criterion (94 percent), and client weight was the most common discharge criterion (87 percent). Fifty-five percent of providers used both client weight and MUAC as discharge criteria. Forty-two percent of providers reported that nutritional assessment was determined by body mass index (weight/height). It is important to note that WHO guidelines for categorizing malnutrition have been validated for body mass index but have not yet been validated for MUAC. It is, however, important to note that MUAC is a widely utilized and simple method of evaluating nutrition status that can be employed by staff and volunteers possessing various levels of technical skill and is easily incorporated into existing routines to assess the nutrition status of clients. Two things are of critical importance. First, that the same metric (either body mass index or MUAC) be used to determine entry and exit criteria. And, second that the metric remain consistent throughout in-country programming for nutrition assessment, counseling, and support.



Concerning job aids and other resources used by providers, the RUTF dosing chart and “Steps to Accurately Use a MUAC Tape” were both available to all providers, although a few sites expressed concern in maintaining all job aids/tools and having equipment available for both facility and outreach activities. All providers said their site had a hanging Salter scale for children, and all but one said that an adult scale was available on-site, although 58 percent of provider respondents stated that to their knowledge the scale had never been calibrated. At one site, providers mentioned that they need another set of weighing scales because the one scale at the facility accompanies staff on outreach visits, leaving the facility without a means to weigh clients.

Almost 94 percent of providers are aware of the existence at their site of two job aids: *Nutrition Care and Support for People Living with HIV* (national counseling cards), and *Comprehensive Nutrition Care for People Living with HIV/AIDS: A Trainer’s Manual for Facility-based Health Providers*.



Providers requested that the following job aids be translated into local languages: 1) weight at admission and minimum expected weight at discharge; 2) RUTF dosing chart; 3) patients eligible for outpatient therapeutic care (OTC) through NuLife-supported programs; 4) steps to accurately use a MUAC tape; and 4) criteria for discharge from OTC.

NuLife has achieved integration of routine nutrition assessment into HIV treatment, care, and support programs by training facility-based workers and CHWs in assessing clients for nutrition services, recording their nutrition status, and providing anthropometric equipment, job aids, record keeping tools, and patient tracking tools.

“The nutrition program is now part and parcel of the hospital. Integration has been accepted—the beneficiaries want the nutrition program as well as the stakeholders.”

–KII, Masindi

ENHANCE NUTRITION COUNSELING

NuLife’s third QI step to nutrition care is *Counseling*—all malnourished clients receive counseling. Nutrition counseling is defined by PEPFAR as an interactive process between a provider and a client in which dietary/nutrition recommendations are provided to best meet the client’s (and/or family’s) specific needs. According to PEPFAR, effective counseling sessions should examine the strengths of the individual and family to outline a feasible course of action and behavior to reduce

“Nutrition counseling and hygiene are good services in that they have helped me in adjusting to better eating practices.”

–Client, Yumbe

barriers and to improve nutrition status (PEPFAR 2006). Findings from the assessment reflect that counseling helps clients identify small, doable actions to put the knowledge shared and discussed with clients into practice. Providing routine nutrition counseling ensures that clients participate directly in improving their nutrition status while engaging in HIV treatment, care, and support programs. Nutrition assessment goes hand-in-hand with nutrition counseling and support.

IMPROVE MANAGEMENT OF READY-TO-USE THERAPEUTIC FOOD

The second objective of the NuLife program was to develop a high-quality, low-cost, nationally acceptable RUTF. This objective corresponds with the fourth QI step to nutrition care: *Food by Prescription*—all moderately and severely malnourished clients who pass the appetite test receive RUTF. Reco Industries was granted the task of producing RUTF. When NuLife began implementation, Reco Industries had underestimated the demand for RUTF, and was therefore not able to provide the needed supply. Levels of malnutrition were higher than originally estimated; once RUTF became available, individuals outside of facility catchment areas would seek services at NuLife facilities, thus increasing demand at those facilities.

NuLife has provided training and resources to other USG partners for integration of nutrition into HIV services, but partners have not set aside funds for purchase of RUTF, and the MOH’s process for including RUTF on the essential drug list has been slow. According to ACDI/VOCA, once RUTF becomes part of the national medical stores, it will be included in the main streamlined distribution system. However, one key informant discussed a “downside” of integration of RUTF into the MOH logistics system, saying that it might cause the supply of RUTF to become erratic, given the history and experience of MOH’s delivery of other drugs. Another key informant noted the importance of USAID ensuring that RUTF production in Uganda can continue beyond NuLife

by directing other USG partners to budget for RUTF and/or purchasing RUTF directly from Reco Industries. As of the writing of this report, USAID has made some steps toward purchasing RUTF directly from Reco Industries.

Reco Industries had bid to become a UNICEF vendor, which would allow the company to export RUTF at a regional level as soon as it is certified through the UNICEF process. Reco Industries is expanding its capacity to produce RUTF as well as other nutritional products and is improving its facility to ensure a steady supply of the product. For example, it is purchasing laboratory equipment for quality testing on-site so Reco Industries does not need to send samples out for quality testing, which requires additional time.

Reco Industries is committed to using locally available raw materials and employing local farmers to grow groundnuts, thus contributing to NuLife’s sustainable livelihoods initiatives. The company has employed over 4,000 farmers in Kasese to grow groundnuts for RUTF production. RECO provides the seeds to farmers, guides them on good planting and harvesting practices, and then purchases the end product from the farmers. Some of the Kasese farmers are PLHIV, and about 65 percent are women. NuLife facilitated a similar partnership in Gulu in Northern Uganda, engaging the Northern Uganda Diocese, TASO, and the Gulu Regional Referral Hospital. Through this partnership, RECO employs PLHIV who have graduated from OTC at Gulu Regional Referral Hospital.

Ninety percent of the clients interviewed said that RUTF helps them take their medication. When clients were asked how RUTF helps them take their medication, respondents replied as follows: helps them gain strength (23 percent); prevents nausea and the side effects of medicines (19 percent); increases appetite (19 percent); and removes hunger (6 percent). Individual clients stated that taking RUTF: helps them “drink a lot of water”; rehabilitates skin; improves recovery and health; prevents dizziness when taking medicines; helps them tolerate other foods; helps them avoid having to swallow drugs on an empty stomach; and increases activity, energy, and playfulness. Some clients (adults and caregivers of children) noted that RUTF can initially cause diarrhea, though with its continued use “the stomach stabilizes” and health improves.

“I am a carpenter and that’s the work I am doing, but before I started using the RUTF I was very weak and I could not hold a hammer in my hands, but after using RUTF I feel strong and I am back to my work again, though I cannot climb up on buildings to make roofing...but healthwise I am fine.”

—Client, Kisoro

“My child was very sick. When I took her to the clinic she was only bones. At one year she was not eating; she was severely malnourished. I began to give her RUTF every day—one sachet. She started sitting up and gaining weight. She went from 5 to 8 kilos. I tried to breastfeed her when she was a baby, but she refused.”

*—Adult caregiver of a pediatric client,
Masindi*

Providers have seen a rapid and visible response of clients to RUTF, and they report that RUTF is easy to dose, distribute, and monitor. Response to RUTF is measured by increased weight, which is used as the discharge criteria. Demand for RUTF is high. Stock balances are usually reported to NuLife monthly (by 58 percent of facilities) or weekly (35 percent). Forty-five percent of providers reported that during the previous three months there had been stockouts of RUTF at their sites for more than two weeks (representing six of the NuLife sites visited), and 65 percent reported experiencing stockouts for less than two weeks. During clinic reviews, half of the clinics had experienced stockouts of RUTF in the last three months (for less than two weeks). This is of concern because availability of RUTF can affect attrition—clients are not motivated to return to the facility for a new supply of RUTF if they learn that it is not available. In the event that stockouts are

anticipated, sites are advised by NuLife not to enroll new adult clients so that they can maximize the stock they have to treat both children and adults already within the program.

“[There are] many clients at this facility. As a result we get stockouts, thus loss to follow-up. Clients get tired of coming and hoping to receive RUTF and they are told that we don’t have supplies.”

–KII, Jinja

All of the clinics report that RUTF and nutrition counseling are provided on the same days as antiretroviral (ARV) provision. However, some clients (14 percent) said they did not receive this same-day combination. All but one client interviewed said they received their RUTF in sachets, and all but three clients reported that they take the recommended dose. Reasons given for not taking the recommended dose were: nausea (67 percent); RUTF was too salty or too sweet (67 percent); and rationing of RUTF supplies (33 percent). Clients reported that during counseling they were informed that RUTF is a medicine

and not for sharing; nevertheless, some parents share the RUTF with their children, and some children share their RUTF with their brothers and sisters.

One provider reported that their site received less than the expected stock, which made this clinic give less than the prescribed amount of RUTF to clients. A situation of receiving less than expected stock might occur because the supply chain team/processes allow analysis of the admission trend and burn rate of the site as a basis for positioning stock to guard against misuse and overstocking.

EMPHASIZE FOLLOW-UP AND REFERRAL

The fifth step in the *Seven Steps to Nutrition Care* is *Follow-up*, which refers to clients on RUTF receiving follow-up for a variety of services at the facility, including nutrition. Different cadres of staff provide different types of follow-up. At the health facility, providers reassess and categorize nutritional status, counsel and prescribe RUTF, and counter-refer to the community. Facility follow-up provides an opportunity to link facilities and community venues. Follow-up improves with community outreach—from reports provided by NuLife on the sites included in the assessment, sites showed increased rates of clients returning for follow-up visits and decreased default rates when community volunteers were assigned to clients to remind them of follow-up appointments and when nutrition assessment and RUTF distribution was taken to lower level health facilities.

A majority (68 percent) of providers report that client loss to follow-up is documented at the clinics. Ninety-four percent of providers list long distances and/or transport difficulties as the main reasons for loss to follow-up. There were a myriad of other reasons given as well, such as:

- Stigma and/or embarrassment (23 percent)
- Clients “graduating themselves” when they feel better and do not return or fear they may not be accepted back (16 percent)
- Disease progression (when clients become bedridden and are unable to return to the hospital) or death (16 percent)
- Stockouts (10 percent)
- Resettlement and relocation (10 percent)
- Complaints of long waits at the facility (6 percent)

“When you are still active on the nutrition program and you are out there in the community, the community volunteer [CHW] follows up and checks on the sachets by physically counting the remaining ones and the used. The community volunteer [CHW] also reminds the caregivers when and how to give patients drugs. They normally come to visit us after two weeks.”

–Client FGD, Bukedea

- Social problems at home (6 percent)
- Communication gap between health facility staff, volunteers, and clients (6 percent)
- Unpleasant taste of RUTF and side effects, especially diarrhea (6 percent).

The following reasons for loss of client follow-up at clinics were also mentioned by individual providers:

- Failure to get better (related to sharing RUTF)
- Having too many children to bring
- Bad weather, which impacts ability to access transportation
- Children being tired of eating RUTF
- Use of a third party who may not deliver food
- Negligence on part of client
- Parents deciding that their children are doing well and stopping RUTF
- CHWs being facility-based instead of being more available in their communities
- Lack of enough CHWs to support clients
- Clients being registered in two centers and choosing to go to just one of them
- Staff attrition, which creates gaps in the management of client records (refill dates, appointments)
- Holidays when staff do not show up.

Eighty-seven percent of providers report that referral and follow-up information is documented and gathered from the CHW records, and 55 percent of providers mentioned that this same information is documented on the client referral report. Among the providers interviewed, 64 percent said that follow-up contact was made with clients who missed appointments and that 85 percent of those clients were contacted if they missed just one or two appointments. CHWs conduct home visits to follow-up on clients who miss appointments; other means of follow-up include calling clients' mobile phones or sending them text messages. Follow-up is not only important for improving the nutritional status of the client—it also has implications for adherence to ART. Synchronizing visits to obtain both RUTF and ARV pickup reduces the number of times a client must return to the facility for supplies or medications.

Facility-based providers refer clients to the following community-based services: community-based nutrition counseling (60 percent of referrals), home-based nutrition support/counseling and nutritional monitoring (40 percent each), food distribution or supplementary feeding centers and livelihood/financial support (32 percent each), and referral for other clinical and nonclinical services (24 percent).

PROMOTE COMMUNITY LINKS WITH FACILITIES

Facility follow-up improves client-provider relationships and provides an opportunity to link facilities and community venues. This is the focus of the sixth step in the *Seven Steps to Nutrition Care: Community Links*—links are established between community and facility; clients are linked to community-based services and programs (e.g., follow-up for treatment, food security, and sustainable livelihoods). CHWs mobilize communities by identifying and referring malnourished individuals to the health facility, engaging with clients in the community, linking and referring clients to sustainable livelihoods and other programs, counseling and educating on health and nutrition, and documenting client contacts.

Eighty-one percent of providers report that all initial follow-up visits (that is, for consultation, drugs, counseling, and food and nutrition) are offered together in the facility on the same day. In communities where there is a CHW, 86 percent of clients noted that they received a follow-up visit at least once a month.

Fifty-two percent of clinics participating in the assessment offer general HIV-related outreach care and support. Among this group, 83 percent include nutrition services and 67 percent document outreach services in the client's clinical record or chart. CHWs, clinic staff, expert clients, and nongovernmental organizations (TASO, PREFA, Child Advocacy International, and Makerere University Walter Reed Project) all provide community outreach HIV nutrition services. As reported by facility staff, the following nutrition services are provided during outreach visits:

- Anthropometric (MUAC, weight, height) and clinical assessments
- Nutrition counseling
- Prescription and distribution of RUTF
- Referrals to facilities (for nutrition or other health services)
- Vitamin A distribution
- Follow-up visits by CHWs
- Health and nutrition education
- Food demonstrations
- Assessment of availability of food and safe drinking water, hand washing, and personal hygiene.

“We need to sensitize the entire community through community church leaders and the chairmen of local councils. They in turn can mobilize their communities. Community leaders have to know what community volunteers [CHWs] are doing in order to support them. Community sensitization will lead to case identification.”

—KII, Rubaga

“Community volunteers [CHWs] also refer clients to us after going to their communities and seeing that they are in need of the nutrition services. The volunteers try as much as possible to see that when they refer clients—[the volunteers] go back to their homes to see if they [the clients] access the clinic for treatment.”

—Provider FGD, Bukedea

TASO is one of the first and leading organizations providing HIV treatment, care, and support to PLHIV in Uganda. NuLife works with TASO at both the national and facility levels to integrate nutrition interventions into HIV treatment, care, and support services. NuLife sites not linked to TASO have other outreach care and support mechanisms in place. At the health facility level, NuLife identifies mechanisms of integrating its community mobilization strategy with TASO’s community approach and provides technical assistance to TASO to roll-out the Therapeutic Feeding program in two NuLife sites.

However, staff are frequently transferred among facilities, presenting another challenge and reinforcing the need for continuous technical updates (continuing professional development/continuing medical education sessions) for all facility-level staff.

“TASO does outreach, but it is not easy for hospital staff [NuLife Staff] to join them due to different clinic days. If there is joint planning, it’s possible to have joint outreach.”

–Providers FGD, Masindi

“Using commodity distribution points for TASO registered clients would help lessen the burden of clients on OTC [NuLife sites] to travel long distances. As TASO conducts its outreaches, they would carry RUTF for clients on the OTC program.”

–KII, Gulu

PROMOTE HEALTH AND NUTRITION EDUCATION

The last QI step of NuLife’s *Seven Steps to Nutrition Care* is *Education*—all PLHIV receive education on good nutrition and hygiene. While only PLHIV who are malnourished are targeted for nutrition counseling in the NuLife QI approach, all PLHIV are targeted for nutrition education. Health and nutrition education has multiple benefits that also extend beyond NuLife clients. Improved nutritional status can benefit all family members, not just those in treatment for malnutrition. When educational sessions are provided in a group setting such as the clinic waiting room, many clients can be reached at once, enabling them to share experiences with each other. Group education in the

facility or in the community also can help normalize nutrition and reinforce it as a routine part of health services.

“Despite the medicines patients attending the clinic could receive, they could not improve. But after the integration of nutrition, patients are improving fast.”

–Provider FGD, Kisoro

“It [nutrition education] is beneficial to clients, for example, both the HIV-positives and [HIV-negatives]. They benefit through health education, because previously our health education had not focused on nutrition aspects, but now we have been able to give [the] right information to our clients and caregivers on nutrition and to look at nutrition as a cross-cutting issue in HIV care and support.”

–KII, Pallisa

Counseling or education on nutrition is being offered at all sites—education is a component of comprehensive counseling. Only malnourished clients are prioritized for one-on-one counseling, but all PLHIV are targeted for group counseling in the NuLife clinics. In the NuLife program, the *Counseling* step is more individualized counseling, and the *Education* step is group counseling. Both steps include an education component. There are different skills needed to carry out individual counseling versus group counseling. Understanding behavior change and how to achieve it, and nutrition knowledge, are necessary for engaging in both forms of counseling. All clients surveyed reported having received counseling or education about food and nutrition, and all considered it “very important” (the average score was

1.98 on a scale of 0 [not at all] to 2 [very]). Of related importance, 91 percent of clients reported receiving counseling on hand washing and water safety at the clinic. All clients who reported receiving water safety counseling considered it “very important.” Providers at all sites reported providing counseling or education on nutrition and on water safety and hygiene.

Clients mentioned other services that should be part of the facilities’ nutrition education program: “social support, home visits, and pick-up by ambulance when sick,” said a client during an interview at Gulu Regional Referral Hospital. Clients from an FGD in Jinga mentioned the importance of receiving other foods: “milk, soya, maize flour, oil and rice would be important to boost the children’s immunity.” Clients from an FGD in Kayunga requested that facilities have “water treatment tablets to purify water as well as income-generating activities.”

“They teach us how to use home foods and [the] importance of eating more frequently. We have benefited from the talks and you see how healthy we look.”

–Client FGD, Kyegegwa

Job aids and posters facilitate nutrition education as well as task shifting/sharing. The national counseling cards on nutrition care and support for PLHIV, developed by NuLife with the MOH, were available at 11 of the 12 sites visited (they were not observed at Masindi). These cards were observed being used by different facility and outreach staff to provide group education on nutrition while clients waited for services. Facility providers also reported giving the cards to outreach workers. One drawback mentioned by some facility staff is that the existing NuLife job aids are all in English. Although the counseling cards have pictures to facilitate nonverbal communication and discussion in other languages, staff requested having flip charts, wall charts, and other job aids available in local languages.

“...the community volunteers are the mouthpiece of this program, and they sensitize clients on our behalf in the community. They identify any client who is malnourished and they refer [them] to the clinic and they often tell the clients where they can access the services and who particularly offers these services.”

–KII, Pallisa

SUPPORT TRAINING, COACHING, AND SUPERVISION

Facility staff and CHWs are trained to provide each of the *Seven Steps*. Every provider surveyed ($n = 31$) reported that staff have been trained to provide nutrition counseling and education at the facilities—either the person interviewed or other staff had been trained. However, the distinction between training in counseling and training in education was not clearly delineated. Staff requested additional trainings to include staff beyond the nutrition focal person at the facilities. As 100 percent of the facilities surveyed reported using task sharing to implement and sustain the nutrition program, training for different staff members is beneficial.

NuLife trained 25 national facility trainers, 1,747 facility-based health providers, 196 trainers of trainers/CHWs (master = 28, regional = 168), 1,215 CHWs, and 25 regional coordinators as coaches.

“Regular training will help the staff keep up with the dynamism of knowledge and skills in the area of nutrition. The more staff [are] updated and can appreciate nutrition, the better, because the people trust them.”

–Provider FGD, Kisoro

“Just imagine training a nurse and a community volunteer on a subject taught in three years—and you do it in three days.”

–KII, Jinja

“The training has [been] a turning point to the treatment of patients.”

—Provider FGD, Kisoro

Meeting training needs also presents challenges that remain to be overcome. Staff could benefit from training in specific counseling skills and in record keeping (for more on this topic, see the next section “Improve Monitoring and Record Keeping”). Frequent turnover at the facilities results when trained staff are often transferred elsewhere (in the case of personnel at MOH-supported public facilities) or leave the facility in search of other employment. Formal training—off-site training led by NuLife staff—was perceived to be limited. Between 4 and 30 staff members at each site were reported as having received in-service training in nutrition at the facilities surveyed, but the number of these staff who remained at their site post-training varied.

Further, it is not clear to the staff how they are assessed on the training that they receive. Nearly half of the individual providers surveyed reported that there is not a standard system in place to assess the staff’s technical competency. One provider did report the existence of such a system at 11 of the 12 facilities surveyed, but then could not clearly articulate what these systems were. The program relied on one staff member who had received formal training to, in turn, train others.

As NuLife transitions to become an MOH-managed program, the MOH will assume responsibility for staff training. However, facility staff reported routine supervisory visits from MOH and District staff only in conjunction with NuLife and not significant engagement outside of those NuLife-catalyzed visits. This may portend challenges moving forward.

Regular contact with facilities, through both distance communication and site visits, is an important component of the NuLife program, with 94 percent of individual providers reporting regular staff coaching/mentoring at their facilities. At a minimum, NuLife staff conducted bimonthly site visits, during which they met with the site QI team and identified challenges, possible solutions, and successful activities to provide overall coaching and supportive supervision. These technical support visits are highly valued by the staff. However, providers at 2 of the 12 sites sampled provided inconsistent responses regarding regular staff coaching and mentoring at their facilities.

Continuous support is in turn provided to the CHWs through regular meetings with facility staff. Community coordinators are part of the facility QI teams and they meet with community-based volunteers on a regular basis. Through discussions in these team meetings, the facility-community teams spot ways to strengthen services (including reducing client default) while also identifying practices that need improvement and those that have been successful and are replicable.

“We also conduct regular [continuous medical education sessions], so new staff have the opportunity of learning from those who received formal training...most of the staff are not trained. We try to train them on the job, but this is not adequate as we need more training, and nutrition as a course unit should also be taught in medical training institutions so that whoever is hired has some basic knowledge.”

—KII, Kayunga

“The project should address the issue of in-house [continuous medical education], because it is much easier and cheaper, and also organize workshops and refresher courses to address the challenges long-serving staff find while preparing new staff to fill any existing gaps.”

—KII, Kayunga

“The monitoring has been regular with NuLife. Coaches come here quite often and they give feedback to staff. I really see quality improvement.”

—KII, Kayunga

“Before I came to join the program I would put a ‘0’ in the column of nutrition without caring, because I lacked the skills in identifying malnutrition, but now I can easily and simply identify malnourished cases.”

—Provider FGD, Kisoro

IMPROVE MONITORING AND RECORD KEEPING

The completeness and method of record keeping for nutrition activities varied among the facilities included in the assessment. With the exception of the NuLife reporting forms, the typical clinic form does not have an assigned space for nutrition-related information, resulting in facility staff adapting existing tools to create columns or means of recording information related to each of the *Seven Steps*. As a result, the information tracked varied among facilities. For example, 25 percent of sites did not record RUTF prescription in the HIV Care/ART Continuation Card.

Despite the inconsistency problem, overall monitoring of nutrition- and HIV-related information was generally good. All 12 facilities surveyed recorded nutritional assessment in the client register, and most facilities recorded nutritional counseling (10 out of 12) and RUTF prescriptions in the client register (11 out of 12). Eleven of twelve sites recorded a comprehensive nutritional assessment, the numbers of clients assessed demonstrating malnutrition, the number of clients receiving RUTF, the number of severely acutely malnourished children (HIV-negative) receiving RUTF, the number of OTC clients defaulting, and the number of clients graduated in either the ART register or on the OTC card. Most facilities also recorded the number of HIV-positive clients receiving ART (10 of 12 sites) and the number of OTC clients receiving nutrition counseling (8 of 12 sites). However, only half of the facilities recorded the number of PMTCT clients receiving RUTF.

“Monthly reports are made at the hospital and are submitted but sometimes some issues are not well done...the issue of unique clients is not well understood and data collection tools are not yet internalized by the staff using them...There is incompleteness of tools such as weight, MUAC. At times they leave blank spaces, and also in ART cards some columns are left blank and some information is not captured.”

—KII, Pallisa

Although tracking nutrition activities and nutrition-related information on clients adds to the tasks of already overworked facility staff, staff do not consider it an undue burden because of the importance of the information. The additional time it currently takes to track nutrition information is due in part to having multiple forms to record the data—for example, the MOH and PEPFAR forms are not harmonized. MOH reporting forms require reporting only a few nutrition-related statistics for children but none for adults. It is encouraging to note that staff do see the utility in maintaining good records and are motivated to do so.

Another unresolved challenge is coordinating information from community-based activities with information from facility-based activities. Record keeping that documents the comprehensive nutrition services provided in both facilities and communities presented a challenge. A similar records problem occurs when facilities located in close proximity to each other offer related services because clients may move between them. Without linking their records, this can contribute to default rates appearing higher than they actually are.

The recorded data is being used by facility staff for decision making. All 12 sites surveyed reported routinely using program data for improving services or decision making. Providers reported reviewing the program data from the facility’s QI team to identify areas of strength and weakness in service delivery. Half of the facilities surveyed reported weekly or monthly reviews of data to flag client attrition and to guide discussions on how to reduce default rates. The cumulative default rate in the overall NuLife program, defined as the number of clients who were enrolled but did not come back for a second consecutive visit, is 48 percent. One-third of facilities reported involving CHWs in these data review meetings, which resulted in strengthening the community-facility link and improving client follow-up.

Eighty-one percent of providers (11 of 12 facilities) surveyed reported providing data to facility management teams. Representatives of facility management who were interviewed as key informants seemed well informed about the ongoing nutrition activities in the clinics and were able to identify other knowledgeable members of their staff if their own familiarity with program areas lagged. Ten of twelve facilities (83 percent) reported that their facility management uses the nutrition data, but it was not elaborated how.

Ten of twelve facilities surveyed reported receiving quarterly feedback on performance from NuLife QI coaches—the other two sites reported monthly and bimonthly feedback. As discussed previously

“Staff is good at monitoring and keeping records, but has difficulty analyzing the data. Most reports are improving in accuracy; there is a visibility of data. The NuLife program is demonstrating that government staff is comfortable with numbers. There is a need to link with and engage the DHO to help form decisions. There is a need to perpetuate ‘one-stop services.’”

–KII, NuLife

(see the section “Support Training, Coaching, and Supervision”), the constant communication with the NuLife staff has been valued by providers as it demonstrated strong engagement by NuLife in the facility activities.

Approximately half of the sites reported that the MOH and DHO use their data, although they did not report how. However, 7 of 12 facilities also reported that they did not receive written feedback from the MOH or DHO regarding their performance on nutrition-related services. Although a few of the sites reported receiving oral feedback from the MOH or DHO, they did not expect such feedback because they had not reported on nutrition activities to the MOH or DHO. The lack of bidirectional communication between

facilities and the MOH and DHOs may have longer-term implications for the sustainability of the nutrition services as management is transitioned to the MOH.

COLLABORATE WITH STAKEHOLDERS

Collaboration between staff and providers in the public and private sectors is key to facilitating the scale-up and integration of services—all of the *Seven Steps*—because it generates support and fosters a sense of collective ownership. To reinforce the MOH’s leadership, NuLife has provided financing for MOH employee salaries to raise the profile of nutrition within the MOH. NuLife supports the work of MOH’s small Nutrition Unit to develop policies related to HIV and nutrition, and advocates for legislation to enact those policies. Additionally, in producing materials and trainings, NuLife has made a concerted effort to emphasize the leadership of the MOH, for example ensuring that job aids and monitoring tools bear the logo of the MOH while the project’s own branding is treated discreetly.

Despite NuLife’s efforts, sentiments regarding MOH’s ownership are mixed from the perspective of facility providers and MOH staff. Nutrition and related services have not been prioritized by the MOH, which in recent years had diminished the staffing and resources designated for nutrition—a trend slowly being reversed due to NuLife efforts.

NuLife and the MOH are not the only stakeholders involved in providing HIV- and nutrition-related services in Uganda. Wherever different programs are providing HIV services, coordination to minimize duplication of efforts and maximize distribution of resources is important. As mentioned previously, district-level funding from the Government of Uganda for nutrition is minimal, and supervision of district-level activities has not been prioritized. Until the MOH and other ministries within the Government of Uganda assume more responsibility and provide more substantial resources toward nutrition activities, collaboration and coordination among existing programs will remain essential.

“NuLife is providing the basics the Ministry [of Health] should provide.”

–KII, USG

“It will all depend on the [MOH] to scale-up and sustain this program. I would say that it was welcome in the country and we are implementing it, but the only thing is sustainability and if USAID pulled out today, as we don’t have funds, it will collapse. The political goodwill of this program has been left on donor’s mercy and the problem is that we are not thinking that if these funders stopped the funding what would happen to clients; we should forecast means [by which] the [Government of Uganda] should sustain nutrition services.”

–KII, Jinja

ASSESSMENT LIMITATIONS

The results of this assessment should be generalized to the NuLife program with caution. The 12 sites selected represent both phases I and II of the NuLife program and are geographically diverse, representing multiple districts in Uganda. However, it is possible that the staff and services are not representative of the remaining 42 sites in the program. All the site visits were scheduled during a 10-day period in late January 2011. If a site visit coincided with a clinic day at the facility, the availability of staff to participate in interviews was limited; if it did not coincide with a clinic day, the availability of clients to participate in interviews was limited.

Although their presence overall was an asset to the assessment, having NuLife staff on the data collection teams may have biased the results. For example, facility staff and volunteers may not have felt comfortable speaking candidly in interviews or FGDs, although efforts were made for non-NuLife representatives to conduct as many individual provider interviews and provider FGDs as possible. Further, the presence of USG representatives during four site visits may have influenced the responses provided, as respondents may have provided the information they thought the funder wanted to hear.

Efforts were made to schedule key informant interviews with a variety of key informants, but due to existing scheduling conflicts, not all appointments were kept. Several health districts included in the assessment did not have a DHO available to be interviewed due to scheduling issues or DHO vacancies. Similarly, the assessment team was not able to conduct all anticipated interviews with stakeholders in Kampala with the MOH and other Government of Uganda agencies.

RECOMMENDATIONS AND STRATEGIES FOR FUTURE PROGRAMMING

“The project has lit a spark—now the thing is to make sure the fire keeps burning.”

–KII, Virika

The NuLife program has demonstrated that integration of nutrition services using a QI approach is feasible and benefits PLHIV and their families. The *Seven Steps* QI approach supported integration of nutrition services into existing systems, equipping different providers with the skills and tools to assess and treat malnutrition as part of overall quality care for clients—an important feat in a setting where many sites lack a trained nutritionist. Additionally, the QI approach supports comprehensive services by encouraging responsiveness to client needs and promoting staff training to make responsiveness possible. Based on the experiences of the NuLife program in implementing nutrition services for PLHIV, recommendations can be made for future programming that reinforce sustainability, country ownership, and integration of nutrition into health services for both PLHIV and people not living with HIV. Some recommendations could be implemented more immediately using available resources, but others would require the identification of additional funding before they could be put into action.

NEAR-TERM RECOMMENDATIONS FOR PROGRAMS

The findings of this assessment support recommendations to integrate nutrition into facility- and community-based services targeting PLHIV and the community at large. The following recommendations are feasible over the short-term (over the next year or two) as they build on existing structures that have resources allocated to them.

PROMOTE APPROPRIATE TASK SHIFTING OR SHARING

Task shifting and/or sharing can facilitate integration, increasing the points at which clients may be assessed, categorized, counseled, educated, and followed-up in facilities or communities linked to RUTF, and provided prescriptions for RUTF at facilities, if eligible. NuLife was able to support programs to quickly implement nutrition-related task sharing, group education, and individual counseling provided both in facilities and in communities using a QI approach. CHWs have become better able to identify malnourished clients, have improved client follow-up, and have created a linkage between community and facility. The different staff and volunteers must work together in a coordinated way, as certain services, such as medical care, will still need to be provided by clinical staff.

“Service delivery at health facilities is by nature integrated.”

–KII, USG

Integrating nutrition education into other health services may also help reduce some of the stigma around various components of the nutrition program. For a client, to be seen by others in the community with RUTF was to be labeled as living with HIV—although many OVC in the NuLife program are not. There was also some stigma around malnourishment, which may affect seeking services. Further integrated education could also serve to improve sensitization overall, raising awareness about nutrition and the NuLife services, which community volunteers are well poised to do. Not only could awareness about nutrition increase, but so could awareness about where services are available, strengthening the community-facility link. Integrating nutrition education could help raise awareness that nutrition care and support services are not limited to PLHIV but are for anyone who may be—or may become—malnourished.

TRAIN FACILITY PERSONNEL AND COMMUNITY HEALTH WORKERS IN NUTRITION COUNSELING AND EDUCATION

Integrating nutrition counseling and education into existing HIV treatment, care, and support services is possible among different levels of staff members. Knowledge, skills, and training need to be imparted to salaried personnel and volunteers who share nutrition counseling and education responsibilities, with the difference between counseling and education reflected by focusing on the differing knowledge and skills the two activities require. Nutrition education should be mainstreamed into trainings for staff so they can incorporate it into various health services and improve health outcomes among clients, in particular those living with HIV.

Ongoing and refresher trainings may address staff and volunteer turnover to ensure a cadre of trained providers is available at facilities and in the community, but these trainings should have established standards to help maintain the quality of services. Ongoing follow-up trainings with clearly identified standards for skills and knowledge and methods for assessment would improve overall staff competency.

Continuous professional development activities and continuous medical education sessions focusing on nutrition topics are ways to maintain staff competency in nutrition services. Stakeholder and implementer meetings and workshops can also include sessions on nutrition as a strategy for information dissemination. NuLife funds continuous medical education sessions at program sites and has an established method of assessment during trainings, but as staff interviewed did not seem to be aware of these activities, raising awareness at sites may be needed.

Although multiple staff members at NuLife sites have been able to provide nutritional assessment, with 100 percent of interviewed providers reporting that they have received training in nutrition counseling and education, there remains a need to better distinguish between and define *nutrition counseling* and *nutrition education*. Specific training in counseling skills has often been on-the-job training without formal training in counseling skills. Providers and clients alike have a tendency to put nutrition counseling and nutrition education under the same heading, not acknowledging the different skills and knowledge needed for the different tasks. Ten of the twelve clinics visited record nutrition counseling in the client register.

Training a multidisciplinary facility team, including community-based volunteers and/or outreach workers, has increased the number of clients being nutritionally assessed and categorized. The NuLife program has shown that within a short time, staff can be trained to conduct nutrition assessments and categorizations using simple tools. More staff and outreach workers/volunteers can be trained and provided with MUAC tapes and job aids to increase the number of facilities offering

nutrition assessment. Providing simple tools and job aids helps these trained workers and strengthens their confidence in participating in nutrition services.

Continuous medical education exists throughout Uganda, and incorporating nutrition into the ongoing staff training system would not require a new parallel educational structure. This is a sustainable approach to ensuring a constant presence of staff trained in nutrition services at the facilities, making the integration of nutrition assessment and categorization into routine services possible. When training curricula, manuals, or other materials are developed or updated, they should include a focus on the skills and knowledge needed for assessment, categorization, counseling, education, and follow-up for both facility- and community-based workers.

PROVIDE SUPPORTIVE SUPERVISION TO PERSONNEL AND VOLUNTEERS

Routine coaching, on-site continuing professional education, and refresher trainings are important parts of ongoing support and supervision. It is important to ensure that all members of the facility team participating in nutrition services be included in coaching and mentoring activities. Providers are grateful for the training and tools provided by NuLife and the ability it gives them to provide more comprehensive services to better meet the needs of PLHIV. Training different levels of staff and CHWs to use MUAC tapes has increased the routine assessment and categorization of clients, both at NuLife facilities and in communities. The availability of the job aids, while in need of improvement and increased availability, has enabled different types of personnel in the program to participate and thus to provide nutrition services to a larger number of clients and community members. Program management should monitor the use of these job aids to ensure they are facilitating service provision and advocate for adjustments (e.g., in language or content) when needed. Routine use of job aids could help ensure consistency during initial and follow-up client assessment, reminding providers or volunteers about the programs' admission and discharge criteria; this could be reinforced by ongoing supervision.

To keep the community volunteer component of the NuLife program of high quality, attention should be given to mechanisms for providing compensation to the volunteers. Small stipends to CHWs might increase retention of volunteers, who could alleviate some of the burden on facility staff by performing tasks such as assessment and counseling and help decentralize services to better link the community to the facility. Volunteers or outreach workers provide nutrition assessment and education in the communities, and can strengthen the link between clients and clinics, supporting them to access facility-based services.

Coordination with other programs and stakeholders is especially important around the issue of community volunteers, who are increasingly relied on for outreach services. Some of the CHWs are shared with other programs and are being identified as solutions for task sharing by different health initiatives. To prevent overburdening the volunteers and prevent burnout and attrition, programs should collaborate in providing support to volunteers and coordinate the tasks they are assigning them.

To respond to requests from providers, the following job aids should be translated into local languages: 1) weight at admission and minimum expected weight at discharge; 2) RUTF dosing

“I have been a volunteer in the community since 2004 with other projects and learned that drawing a work plan and timetable for community work is very important—when and where to visit, when to work in the health facility and when to do our own work.”

—Provider FGD, Kyegegwa

chart; 3) patients eligible for OTC through NuLife-supported programs; 4) steps to accurately use a MUAC tape; and 5) criteria for discharge from OTC.

INCLUDE READY-TO-USE THERAPEUTIC FOOD IN THE ESSENTIAL MEDICINES LIST

Classifying RUTF as an essential medicine is a needed step to facilitate continuous access to the product. NuLife has begun the classification process, but the final approval has been delayed for several months. Getting locally produced RUTF on the essential medicines list in other countries would similarly facilitate procurement, keeping costs down and supporting local farmers and manufacturers. The RUTF prescribed in the facilities has dramatically improved the nutrition status and the quality of life for clients. Clients appreciate their returned strength, their improved ability to fight infections, their ability to better adhere to drug regimens, and their ability to participate in their own care.

Recognizing that it would take time to identify resources and not wanting to create entirely new systems, the MOH and National Medical Stores could integrate RUTF into the public sector supply chain and procure RUTF along with other essential medications. Another option could be to consider contracting out the supply chain for the RUTF. Using a contractor could improve the efficiency of RUTF supply and avoid some of the problems the National Medical Stores has had with the ARV supply. A contractor with local or regional offices could also increase local accountability for supply chain management and focus more on a “pull” system where they respond to demand from sites as opposed to sites receiving supply when available.

“This program has really helped people. These children need this—before they were not getting care.”

—KII, Ishaka

For production of RUTF to continue to meet this high demand, it is critical that USAID (directly or through its implementing partners), other donors (e.g., UNICEF), and/or the MOH step in to purchase RUTF as NuLife reaches its end. A committee under the National Development Authority has taken the lead in drafting a nutrition action plan fostering inter-sectoral collaboration among ministries (agriculture, health, education, finance, and gender), professional

organizations, and partners (ACDI/VOCA and Reco Industries) who are providing technical input due to their work/experience with RUTF.

LONGER-TERM RECOMMENDATIONS FOR PROGRAMS

Other recommendations emerging from the assessment will require a longer time period to implement and may not be realized for several years, but are important for the sustainability of nutrition and HIV initiatives.

“Sustainability is always an issue, not only in nutritional programs but also in HIV.”

—KII, Ishaka

SUPPORT NUTRITION LEADERSHIP AND ADVOCACY FOR NATIONAL AND LOCAL OWNERSHIP

Integrating nutrition care and support is an important area for MOH leadership, not only for care of PLHIV but for all children and adults—the IMAM guidelines are for the treatment of malnutrition of everyone from six months of age through adulthood, regardless of HIV status. National and local ownership of nutrition initiatives will be necessary to implement and update trainings and systems,

including provider and client education, incorporation of RUTF in the main pharmacy, and monitoring of programs.

“There needs to [be] one harmonized strategy and system between MOH, UNICEF, and NuLife—not each with their own system...a harmonized supply chain management system all the way from the manufacturer, Reco [Industries], to the users is expected to evolve...”

—KII, University Research Corporation

The MOH budget for nutrition activities has increased 20-fold since the beginning of the NuLife program, but additional resources are needed. The transition of funding from donors to the Government of Uganda should occur, ideally, over several years in a graduated way to ensure seamless continuity so that the existing quality of services remains strong. The MOH will need to identify sources of funding and include provisions for nutrition services in annual budgets. The transfer of funding could be staged by activity, such as beginning with funding only for training or materials, or it could be based on shifting percentages of overall costs. It may be necessary for an external funder to support the MOH and the DHOs to ensure that all aspects of the program—including training, materials, and RUTF—are planned

and budgeted for. When developing and updating job aids, the MOH can then take the lead to ensure they are relevant to the communities the national and local programs are serving. DHOs could incorporate NuLife-trained CHWs into village health teams, supporting them through periodic refresher courses; providing them with relevant recording and reporting materials and information, education, and communication tools; and facilitating progress review meetings.

INCORPORATE NUTRITION INTO STANDARDIZED MONITORING TOOLS

Harmonizing monitoring tools and reporting mechanisms so that nutrition status and activities are covered by all of them in a uniform, standardized way is a task that could be initiated immediately, although completing it will take time. There are cost implications for revising and combining PEPFAR and MOH reporting forms, so funds would need to be immediately identified. Some progress has been made to date to include nutrition information, but additional indicators specific to nutrition activities and client nutritional status would augment the health information system. Once new forms are produced, they would need to be distributed to the facilities and the staff will need to be trained in their use. Adherence to national admission and discharge criteria will be crucial to compare nutrition services across sites, especially with regard to rehabilitation, graduation, and default rates.

Reconciling multiple client records can be time-consuming and difficult, but it is nevertheless an important task to ensure proper activity monitoring, follow-up, and client tracking. Using treatment partners for some roles currently filled by community volunteers to help monitor client progress may overcome some of these challenges and provide a model more palatable to the USG as treatment partners form an established component of PEPFAR-funded treatment programs.

Staff and CHWs should be trained on routine monitoring and record keeping in order to facilitate the QI process. Using more standardized forms and procedures that explicitly include nutrition-related data would likely increase the consistency of client monitoring.

COORDINATE AMONG STAKEHOLDERS AND ACROSS SECTORS

To address sustainability and maximize use of available resources, stakeholders should collaborate to offer complementary services. Facilities should work with the MOH, local government, and

nongovernmental organizations to obtain uninterrupted commitment for implementing future integrated and expanded nutrition and HIV activities.

Other projects or initiatives could provide training and support to facility staff and community volunteers in addition to health commodities to support sustainability and scale-up of activities—the interest is present. Additionally, coordination with other community nutrition and food initiatives outside of HIV programming will be important as those portfolios grow.

Other activities needed to prevent malnutrition and achieve sustainable healthy diets in Uganda will require longer-term planning. Nutrition, education, and agriculture programs could be coordinated to teach people how to grow nutritious foods to keep and use in the household—not just to sell for profit—and how to prepare and store these foods. Agriculture and development programs, such as the USG-funded Feed the Future and the Government of Uganda-implemented National Agriculture and Development Services initiatives, are still being rolled out. Once they have become more established and coordinated with complementary initiatives, they could provide a sustainable effort to address both income generation and prevention of malnutrition.

“We try to tell people what to grow, they shouldn’t rely on NuLife forever.”
—KII, Kyegegwa

FOCUS ON PREVENTION, NOT JUST TREATMENT

Management of moderate and severe acute malnutrition using RUTF has been a clinical success. However, to be eligible for RUTF, clients must meet the moderately acutely malnourished or severely acutely malnourished requirements, and this eliminates many clients who might also be malnourished but not yet underweight enough to access RUTF. Other clients with poor nutritional status, including those who are overweight or obese, may not benefit from RUTF (which helps clients gain weight). To address the needs of these clients, and lower the number of clients requiring RUTF, programs should focus on preventing malnutrition, not just treating it. Coordination of this work with other agriculture and education programs could help make the shift from primarily treating malnourished individuals (both HIV-positive and HIV-negative) to preventing malnutrition.

“Success of RUTF can also be a problem—improvement happens so quickly.”
—KII, USG

Focusing on prevention may also prevent relapse once clients graduate from the program. Because children can respond so well to RUTF, their nutrition status may quickly improve, sometimes more quickly than their caregivers can make changes to the household food situation. Making sure families can identify and address the root causes of malnutrition through prevention efforts in addition to treatment may reduce clients’ need to start RUTF again after already successfully completing treatment.

CONCLUSION

“Hunger is no longer a barrier to ART adherence...”

—KII, Kayunga

Nutrition is a key component of HIV care. The NuLife program rapidly expanded access to nutrition services for PLHIV and OVC by providing comprehensive care services and follow-up with clients to promote adherence to ART using a QI approach. With the higher quality of care clients have received, they have been able to take their ARVs as their appetites and strength have returned. In a relatively short period of time, NuLife has used a QI approach to integrate nutrition into HIV treatment, care, and support at selected facilities in Uganda, and to strengthen the facility-community link. The program has demonstrated that nutrition assessment, counseling, education, and treatment can be integrated into existing health systems. It is possible to improve the overall health status of clients by supporting good nutrition. Additionally, adding nutrition services can help alleviate staff burden, because as their nutrition status grows stronger, clients are better able to fight infections and become healthier, reducing the number of sick people needing services.

The benefits of the NuLife program extend beyond PLHIV and malnourished child clients—knowledge of good nutrition can extend to entire families and communities. Programs like NuLife may be able to reach a greater number of malnourished and PLHIV through the integration of services because identifying clients through nutrition services can be an additional way to increase the identification of PLHIV and link them to testing and care services. While being seen with a supply of RUTF may mark clients as PLHIV, the benefits of universal client nutrition screening and services would increase the potential catchment and possibly decrease the stigma of being prescribed RUTF.

“The health workers, I think, embrace the program because they see clients’ quality of life improving and as result providers’ work load reduce.”

—KII, Jinja

The NuLife program could be a foundation for linking to other food security and nutrition programs such as Feed the Future. Key components of nutritional assessment, counseling, and support services, such as follow-up and education, can be shifted to activities that CHWs and even volunteers can do, thus increasing access to services. The NuLife program has been successful because it added services to existing structures and trained different providers to deliver those services. NuLife provided training and ongoing supportive supervision to staff providing nutrition services, especially the nutrition focal person and the QI coordinator—having staff in charge of these leadership positions strengthened the services. The lessons learned by NuLife, and in particular their use of a QI approach, exemplify how tasks can be managed by a busy staff while also strengthening the link between facilities and communities. As increased attention and resources are channeled toward nutrition services, the key recommendations and lessons learned from the NuLife program could guide future nutritional initiatives and serve as a model for replication.

REFERENCES

- Food and Agriculture Organization of the United Nations. 2010. *The State of Food Insecurity in the World*. Rome, Italy: Economic and Social Development Department, Food and Agriculture Organization of the United Nations.
- Food and Nutritional Technical Assistance II Project (FANTA-2). 2010. *The Analysis of the Nutrition Situation in Uganda*. Washington, DC: FANTA-2, AED.
- Food and Nutrition Technical Assistance II Project (FANTA-2). 2011. *Meeting on Nutrition Assessment, Counseling, and Support in HIV Services: Strategies, Tools, and Progress, September 14-17, 2010, Jinja, Uganda. Meeting Report*. Washington, DC: FANTA-2, Academy for Educational Development.
- Gerberg, L., and J. P. Stansbury. 2010. *Food by Prescription in Kenya*. Arlington, VA: USAID's AIDS Support and Technical Assistance Resources, AIDSTAR-One, Task Order I. Available at www.aidstar-one.com/sites/default/files/AIDSTAR_FBP_Assessment_Report_Final.pdf (accessed January 2011).
- Government of Uganda. 2010. *UNGASS Country Progress Report Uganda: January 2008–December 2009*. Kampala, Uganda: Government of Uganda.
- Government of Uganda Ministry of Health. 2010. *Health Sector Strategic Plan III (HSSP III) 2010/11-2014/15*. Kampala, Uganda: Government of Uganda Ministry of Health.
- Joint United Nations Programme on HIV/AIDS and World Health Organization. 2009. *2009 AIDS Epidemic Update*. Geneva, Switzerland: UNAIDS and WHO.
- The Republic of Uganda. 2003. *Nutritional Care and Support for People Living with HIV/AIDS in Uganda: Guidelines for Service Providers*. Kampala, Uganda: The Republic of Uganda.
- The Republic of Uganda. 2005. *The National Food and Nutrition Strategy*. Kampala, Uganda: Ministry of Agriculture, Animal Industry & Fisheries; and Ministry of Health.
- Uganda Bureau of Statistics. 2006. *2002 Uganda Population and Housing Census Analytical Report: Population Size and Distribution*. Kampala, Uganda: Uganda Bureau of Statistics.
- Uganda Bureau of Statistics and Macro International Inc. 2007. *Uganda Demographic and Health Survey 2006*. Calverton, Maryland: UBOS and Macro International Inc.
- United Nations World Food Programme. 2009. *Comprehensive Food Security & Vulnerability Analysis, Uganda*. Rome, Italy: World Food Programme, VAM Food Security Analysis.
- U.S. Agency for International Development and NuLife. 2009. *Baseline Assessment of Food and Nutrition Interventions for People Living with HIV in Uganda, Final Report*. Kampala, Uganda: Service for Generations International.
- U.S. Government Working Document. 2010. *The Feed the Future (FTF) Uganda FY 2010 Implementation Plan*. Washington, DC: Feed The Future.
- U.S. President's Emergency Plan for AIDS Relief. 2006. *Policy Guidance on the Use of Emergency Plan Funds to Address Food and Nutrition Needs*. Washington, DC: PEPFAR.

For more information, please visit aidstar-one.com.

AIDSTAR-One

John Snow, Inc.

1616 Fort Myer Drive, 11th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: info@aidstar-one.com

Internet: aidstar-one.com