Nutrition Section
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Infant and Young Child Feeding Programme Review

Case Study: Uganda

unite for
children

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Acknowledgments

This case study is part of a review of infant feeding programmes which was conducted as a joint effort between UNICEF's Nutrition Section and the Academy for Educational Development (AED), in order to understand the factors that influenced breastfeeding programme outcomes, distil general lessons learned from the experience of these countries and make recommendations for programming on infant and young child feeding. The review included detailed individual case studies from six countries, as well as a consolidated report which draws upon these case studies. The six countries are Bangladesh, Sri Lanka, Uganda, Benin, the Philippines and Uzbekistan, chosen to represent a range of regions and diverse scenarios in terms of breastfeeding programming efforts and outcomes.

On the part of AED, the review was led by Luann Martin, who also visited Uganda and prepared this case study report.

In Uganda, Eric-Alain Ategbo, Nutrition Specialist at UNICEF/Uganda, and to Claudia Hudspeth Chief of the Child Survival and Development Cluster, who extended the invitation to include Uganda as one of the case studies. Brenda Kaijuka and John Musinguzi, members of the UNICEF nutrition team, offered valuable assistance in arranging the interviews. Much of the information reported in this case study is thanks to the persistence of John Musinguzi in setting up appointments and finding documents and to his responsiveness upon receiving numerous follow-up queries by e-mail. Interviewees at UNICEF, the Ministry of Health, Mulagao Hospital, the World Food Program, Makerere University, GAIN, NuLife, PREFA, the FANTA Project as well as two individuals who recently retired from government service were generous in sharing their experiences and suggestions. Those interviewed and those participating in a review meeting on the final day of the visit provided useful suggestions for future programming.

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Acronyms and abbreviations

AFASS	acceptable, feasible, affordable, sustainable and safe
ANC	antenatal care
BCC	behavior change communication
BFHI	Baby-friendly Hospital Initiative
DHS	Demographic and Health Survey
DISH	Delivery of Improved Services for Health
ECD	early childhood development
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
ENA	Essential Nutrition Actions
FANTA	Food and Nutrition Technical Assistance Project
GAIN	Global Alliance for Improved Nutrition
HRBAP	human rights-based approach to programming
IBFAN	International Baby Food Action Network
IEC	information, education, communication
IGBM	Interagency Group on Breastfeeding Monitoring
IMCI	integrated management of childhood illness
IYCF	infant and young child feeding
MTCT	Mother-to-child transmission (of HIV)
MNH	maternal and neonatal health
MOH	Ministry of Health
NGO	non-governmental organization
NUMAT	Northern Uganda Malaria AIDS & Tuberculosis Program
PEPFAR	President's Emergency Plan for AIDS Relief
PHM	primary health midwife
PMTCT	prevention of mother-to-child transmission (of HIV)
PREFA	Protecting Families against HIV/AIDS
RCQHC	Regional Center for Quality of Health Care
SOWC	State-of-the World's Children
TOT	training of trainers
TIPs	trials of improved practices
UGAN	Uganda Action on Nutrition
ULMET	Uganda Lactation Management Education Team
UNICEF	United Nations Children's Fund
UPHOLD	Uganda Program for Human and Holistic Development
USAID	United States Agency for International Development
VHT	Village Health Team
WABA	World Alliance for Breastfeeding Action
WFP	World Food Program
WBW	World Breastfeeding Week
WHO	World Health Organization

Executive summary

This case study is one of six in a review of the contributions of UNICEF and its partners to infant and young child feeding (IYCF). The Uganda study involved a review of relevant documents, a visit to Uganda from October 27 – November 4, 2008, interviews with 24 key informants, and a stakeholder workshop.

Infant and Young Child Feeding (IYCF) Trends. Uganda has a strong breastfeeding culture. In 1995 the exclusive breastfeeding rate for infants 0-5 months was 57 percent. The rate increased in 2000/01 to 63 percent and then dropped to 60 percent in 2006. Median duration of breastfeeding during this period remained around 20 months. The reason for the decline of early initiation of breastfeeding (within the first hour) from 51 percent in 1995 to 42 percent in 2006 is unclear. The reduction in the traditional practice of prelacteal feeding from 64 percent in 2000/01 to 54 percent in 2006 and an increase in the percentage of mothers giving complementary foods to infants 6-9 months olds are encouraging signs. However, almost one-fourth of children between 6-23 months of age do not meet the minimum standard for three indicators: consumption of breastmilk or other milk, food diversity, and feeding frequency. This explains in part the continuing high rates of undernutrition in Uganda.

Accomplishments. Although the HIV pandemic called into question the long assumed benefits of breastfeeding and dampened breastfeeding promotion in the mid and late 1990s, it ended up being the force that stimulated action and generated resources for IYCF in the 2000s. Uganda is a leader in tackling HIV. Services for the prevention of mother-to-child transmission (PMTCT) of HIV scaled up from five pilot sites in 2000 to 701 sites in 2008. The HIV prevalence rate dropped from 20 percent in the 1990 sentinel sites to the current national prevalence rate of 6.4 percent (5 percent for men and 7.5 percent for women).

Uganda is also an innovator and leader in the development of an integrated approach to IYCF, comprehensive and technically sound policies, and high-quality educational resources and job aids on infant feeding. Technical experts committed to IYCF in the Ministry of Health, NGOs such as IBFAN Uganda, academic institutions, and development partners worked closely to advance the IYCF agenda, often through Task Forces set up by the Ministry of Health. While regulations on the marketing of breastmilk substitutes exist, implementation, monitoring and advocacy need to be strengthened. Maternity protection legislation is supportive of breastfeeding women in the workplace with 60 working days of paid leave for women in the public and private sectors. Uganda was the first country in sub-Saharan Africa to develop a 6-day course that integrates training on breastfeeding counseling, BFHI, and HIV and infant feeding. Thousands have also been introduced to breastfeeding issues as part of trainings on PMTCT and Integrated Management of Childhood Illness. To keep IYCF before the public, the MOH and development partners have conducted periodic media campaigns and coordinated annual World Breastfeeding Week activities.

Gaps and Challenges. The accomplishments made in IYCF in the past 10 years are impressive, yet resource, policy, health systems, and communications gaps impede further progress.

Human and financial resource gaps. Insufficient human and financial resources at the national and district levels hinder program coordination and implementation.

Policy gaps. Limited dissemination and discussion of IYCF-related policies once they are approved and lack of coordination among government authorities responsible for monitoring diminish the impact of the policies. Moreover, many women are unaware of or unaffected by them. Maternity protection legislation does not apply to women who work in the informal agricultural sector. These women represent the largest proportion of working women.

Health system gaps. The Baby-friendly Hospital Initiative never gained momentum in Uganda. Concerns about HIV and the lack of training, a built-in monitoring system, and interest among development partners weakened the Initiative. Two health facilities were certified in 1995 and 15 in 2006. An internal assessment of 40 facilities was conducted in 2008, and many of these facilities have requested an external assessment for certification. Funding has not yet been secured.

Challenges faced by the health system include: 1) scaling up in a country where more than 1,600 health facilities provide maternity services, 2) reducing missed opportunities to counsel mothers, and 3) reaching the majority of women who neither deliver in a health facility nor receive care during the critical postnatal period. Facility-based deliveries represent only 41 percent of all deliveries. Although approximately 97 percent of pregnant women have at least one antenatal visit, surveys show that many women do not receive counseling on breastfeeding during their visit. Counseling on infant feeding, which is either absent or poorly conducted, remains the weakest component of PMTCT programs. A huge demand exists for training health providers on infant feeding and counseling skills.

Community and communication gaps. Messages and practical support on IYCF often do not reach mothers because of limited community-based breastfeeding promotion and support. Messages are usually directed to literate women with access to mass media, which eliminates a significant portion of the population.

Recommendations. The following recommendations are based on document review, key informant interviews, and the stakeholder meeting at the conclusion of the country visit.

- Establish mechanisms with adequate funding for ongoing coordination of IYCF activities among the various government agencies and development partners and designate focal points for IYCF at the national and district levels.
- Use the *Uganda Policy Guidelines on Infant and Young Child Feeding* as a launching point for the development of a plan of action that prioritizes activities based on their reach, cost-effectiveness, and sustainability and establishes timelines, lines of responsibility, and a budget.
- Plan and implement an advocacy strategy to address complacency and to achieve clarity and consensus on feeding recommendations in the context of HIV among policy makers, program managers, academicians, and health professionals.
- Develop a communications strategy aimed at ensuring that all women have equitable access to accurate, clear, and consistent messages. Findings from a recent media audience research study in Uganda suggest delivering messages through drama, dance, radio, and social and community gatherings.
- Incorporate BFHI criteria into existing certification programs and develop strategies for supporting women who deliver at home.
- Bring together those who have been involved in community-based breastfeeding promotion in Uganda and elsewhere to learn from their experience and incorporate this learning in the design of community programs; ensure that an action plan for the community-based IYCF activities at scale is developed.
- Revisit the indicators and targets for measuring progress in IYCF and set up a system to track IYCF activities, training, and materials.
- Seize the opportunities that exist to advance the IYCF agenda, including the transition from programming focused primarily on emergencies to programming for development and the heightened interest in child survival, newborn health, complementary feeding, and community-based health care.

1. Introduction

This case study is one in a series of six in a review of the contributions of UNICEF and its partners to infant and young child feeding (IYCF) over the past few years, with the primary focus on breastfeeding. The other countries studied include Bangladesh, Benin, Sri Lanka, the Philippines, and Uzbekistan. The aim of the IYCF review was to: 1) better understand the contextual and programmatic factors that led to changes in feeding practices in selected countries, 2) assess the contributions by different actors, 3) develop a series of innovations, good practices, and lessons learned to improve future programming, and 4) identify ways of overcoming challenges to improved practices. The review in Uganda begins in the early 1990s, but most of the paper focuses on the past 10-15 years.

The development of the case study for Uganda involved a review of relevant documents, a visit to Kampala from October 27 – November 4, 2008, and analysis of the information and data obtained during the visit. (See documents reviewed in Annex 1). The field work included semi-structured interviews of 24 key informants, involving staff from UNICEF, the Ministry of Health, the World Food Program, IBFAN, the Global Alliance for Improved Nutrition, Mulago Hospital, Makerere University, and three USAID-funded programs.

In addition, a stakeholder workshop was held the final day of the visit with 10 participants representing the above organizations. Participants commented on findings from the review on IYCF policies and legislation, breastfeeding advocacy, the Baby-friendly Hospital Initiative (BFHI), pre-service education, in-service training, and community-based activities.

2. Country profile

2.1 Demographic, health and nutrition indicators

Uganda has experienced impressive economic growth, an average of 6.5 percent per year since 1991. This took place at a time when the Government was confronted by AIDS and civil conflict.[1] The first case of HIV/AIDS was clinically diagnosed in Uganda in 1982. From the outset the Government took aggressive measures to combat HIV transmission. The HIV prevalence rate dropped from a national prevalence rate of 15 percent in 1991 to the current rate of 6.4 percent (5 percent for men and 7.5 percent for women). Three areas remain significant hurdles for the country's development: child mortality, undernutrition, and high fertility. Uganda's under-five mortality rate places it among the 25 countries of the world with the highest rates. Uganda's fertility rate (6.7) is also one of the highest in the world and dilutes gains made in health.

Child Mortality. The 2006 DHS showed the first downward trend in infant and child mortality rates in 15 years. From 2001 to 2006, the under-five mortality rate dropped from 157 to 137 deaths per 1,000 live births, and in 2009, the under-five mortality rate dropped again to 130 (SOWC 2009). Uganda is unlikely to reach the Millennium Development Goal of reducing child mortality by two thirds because of gaps and regional disparities in the provision of services (water, sanitation, primary health care, nutrition, antenatal care, and malaria interventions). The major causes of child mortality in Uganda are malaria (25 percent), respiratory infections (19 percent), and diarrhea (17 percent). Approximately one-fifth of under-five deaths occur in the first month of life.

Nutrition and feeding practices. From 2001 to 2006, the Uganda DHS registered an increased prevalence of severe and moderate wasting, slightly increased prevalence of severe acute undernutrition, and a reduced prevalence of underweight children. Among children under five, 32 percent are stunted, 20 percent underweight, and 5 percent wasted as shown in table 1 (SOWC 2009). The highest rates of undernutrition are

[1]For the past 20 years Uganda has experienced conflict and insecurity in the North and parts of the North East as a result of civil war. The number of internally displaced persons increased from 380,000 at the end of 2003 to an estimated 1.8 million people in 2006. More than 200 camps, described as cramped and unhygienic with minimal health services, housed the internally displaced persons. The Cessation of Hostilities Agreement in August 2006 led to improved security, relative stability in the northern region, and wide-scale population movement from camps to villages of origin. However, as of November 2008, the peace accord remains unsigned and hundreds of thousands continue to live in camps.

found in rural areas and in the northeast and southwestern regions and in Karamoja sub-region. Southwestern Uganda is known as the "bread basket," yet it has the highest levels of stunting, which is an indicator of poor quality complementary foods and feeding practices. The 2006 DHS reported that 60 percent of children under 6 months were exclusively breastfed in the 24 hours prior to the survey. The median duration of exclusive breastfeeding was 3.1 months. Less than half (42 percent) of children were breastfed within the first hour of birth.

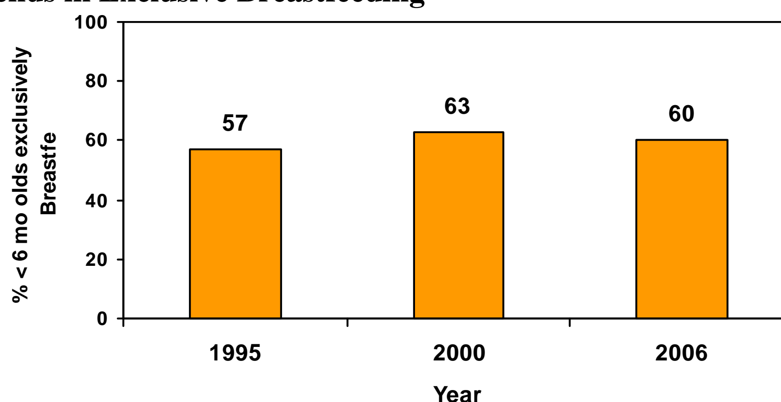
HIV. An estimated 110,000 children in Uganda are living with HIV, almost all (90 percent) a result of mother-to-child transmission (MTCT) of HIV (PMTCT Situation Analysis, 2008).

Table 1. Country Profile	2009
Total population (millions)[a]	30.9
Urban population (%)[a]	13
Under-5 mortality rate[a]	130
Infant mortality rate[a]	82
Neonatal mortality rate[a]	30
Low birthweight (%)[a]	14
Moderate and severe stunting (%)[a]	32
Severe stunting (%)[b]	15
Moderate and severe wasting (%)[b]	5
Severe wasting (%)[b]	2
Moderate and severe underweight (%)[a]	20
Severe underweight (%)[a]	5
Sources: a) State of the World's Children 2009; b) Uganda DHS 2006	

2.2. Trends in breastfeeding rates

The Uganda Demographic and Health Surveys provide data on IYCF trends. In the 24 hours prior to the survey, 57 percent of infants 0-5 months old were exclusively breastfed in 1995. The exclusive breastfeeding rate increased to 63 percent in 2000/01 and then dropped to 60 percent in 2006 (figure 1). The proportion of infants exclusively breastfed at 4-5 months was less in 2005 than it was in 2000/2001 (35 and 44 percent respectively).

Figure 1. Trends in Exclusive Breastfeeding

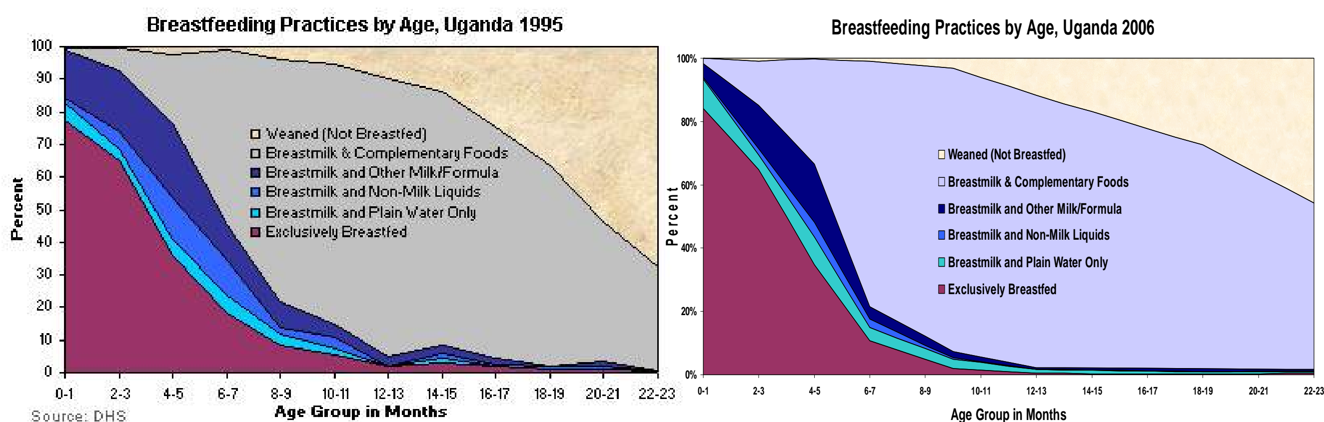


Timely initiation of breastfeeding (within the first hour after the birth) decreased from 51 percent in 1995 to 32 percent in 2000/01 and then began to climb, reaching 42 percent in 2006. One encouraging trend is a decline in prelacteal feeding, from 64 percent in 2000/2001 to 54 percent in 2005. The practice of extended duration of breastfeeding continues with a current median of 20.4 months. Bottle feeding among young infants is relatively low but on the increase (table 2).

Table 2. Breastfeeding Trends	1995 DHS	2000/01 DHS	2006 DHS
Early initiation of breastfeeding	51%	32%	42%
Exclusive breastfeeding (infants 0-5 months)	57%	63%	60%
Median duration of exclusive breastfeeding	3.0 months	3.7 months	3.1 months
Median duration of breastfeeding	19.5 months	21.6 months	20.4 months
Bottle feeding (infants 0-3 months)	5.5%	4.6%	7.5%
Formula feeding (infants 0-3 months)	1.8%	1.1%	1.0%
Prelacteal feeds		64%	54%

The area graphs in figure 2 give a visual presentation of breastfeeding practices over time. The overall impression is that dramatic changes have not taken place over a 10-year period. However, more children 6-9 months old are now receiving food in addition to breastmilk (80 percent in 2006 versus 66 percent in 1995 and 75 percent in 2000). The graphs only report on what was fed and not on the quantity, quality, or frequency of the feeds. The IYCF practices indicator is a composite indicator that reports on three practices among children 6-23 months old: 1) breastmilk/other milk, 2) food diversity, 3) and feeding frequency. Only 24 percent of children in this age group met the *minimum* standard for all three practices. This explains in part the high rates of undernutrition among this age group and indicates the importance of improving food quality and feeding practices.

Figure 3. Comparison of breastfeeding practices by Age, Uganda 1995 and 2006



3. Key findings

This section summarizes problems associated with feeding practices and various assessments of efforts that have been made to address them.

3.1 Assessments of feeding practices

Quantitative data from the national Demographic and Health Survey, data collected in districts as part of program baselines and evaluations, and qualitative studies provide information on feeding practices. Literature reviews of infant feeding in Uganda (Baume, 1997 and 1999) and qualitative research on complementary feeding practices in northern Uganda (Baume, 2001) identify the following positive beliefs and practices:

- Almost all babies are breastfed and breastfed for an extended period.

- Mothers believe that a very young infant can be well nourished on breastmilk alone.
- Feeding bottles are not commonly used.

Those practices and beliefs that contribute to poor nutritional status include the following:

- The median duration of *exclusive* breastfeeding is too short (around 3 months). Many health workers and mothers believe that breastmilk alone is inadequate when a child reaches 3 or 4 months. The main threat to 6 months of exclusive breastfeeding is introduction of watery porridge and other drinks. Mothers who do not regard porridge as a food may think they are following recommendations not to start foods until an infant is 6 months old.
- Mothers in northern Uganda often delay introduction of semi-solid foods.
- Many mothers believe that frequent suckling depletes the milk supply.
- Early feeding practices among some groups include delayed initiation, discarding of colostrum, and prelacteal feeding. Water is the most common prelacteal food.
- Breastfeeding is stopped abruptly when a mother learns she is pregnant.
- The relationship between lactation and fertility is poorly understood.
- Key problems in complementary feeding are insufficient variety, energy density, and feeding frequency. The maize and millet porridges fed to young infants are very dilute and low in nutrient density. In the north, cassava is also used to make porridge. Few add enriching ingredients to the porridge.
- Mothers turn to health workers for advice, but their counsel on complementary feeding is not always technically sound.

3.2 Assessments of program interventions

UNICEF's periodic situation analyses of children and women in Uganda present an overall picture in regards to health, nutrition, education, and human rights. These analyses are enhanced by several IYCF and newborn assessments.

1992 breastfeeding assessment. An excellent, comprehensive assessment of breastfeeding practices and promotion was conducted in August and September 1992 (Steel et al, 1993) through funding by USAID. This assessment serves as a baseline for breastfeeding promotion in Uganda. The assessment team reported complacency among policymakers and health providers who did not recognize a problem because of near universal initiation and prolonged breastfeeding. The absence of written policies on infant feeding made it difficult to move forward with programs. Other findings included abbreviated and often outdated information on breastfeeding in pre-service MCH education, failure to incorporate breastfeeding training into other programs, no breastfeeding campaign or educational materials for the community on breastfeeding except for an occasional poster, and no designated funding for breastfeeding promotion. The assessment team concluded that the major obstacles to optimal breastfeeding in Uganda were "lack of recognition of the problem, absence of a policy, poor training of those expected to support mothers when they need help, and a lack of understanding of mothers' perceptions, attitudes, and practices related to child feeding." The team recommended appointment of a national coordinator for breastfeeding in the MOH, identification of district coordinators, qualitative and operational research, investigation of the issue of maternal nutritional status in relationship to breastmilk production, and training of health workers and community outreach persons. In response to these recommendations, several qualitative studies were conducted. Several years passed before an IYCF focal point in the MOH was appointed.

2000 IYCF assessment. In 2000 UNICEF East and Central Africa Regional Office (ESARO) and the International Baby Food Action Network (IBFAN) Africa commissioned a rapid review of the current status of the protection, support, and promotion of breastfeeding in four countries: Botswana, Kenya, Namibia, and Uganda (Latham and Kisanga, 2001). The purpose of the review was to determine reasons for declining actions by governments and UN agencies in support of breastfeeding and to recommend actions to reverse the

trend. In all countries, the overwhelming reason cited for declining support was concern for HIV transmission through breastfeeding. The key findings of the 2000 assessment in Uganda are summarized below.

- Excellent national policy and guidelines issued in 2000 on feeding of infants and young children of HIV-positive women
- Ongoing advocacy by the Nutrition Unit for 6 months of exclusive breastfeeding
- Sound legislation to regulate the marketing of breastmilk substitutes but lack of awareness of its existence and the need for training in monitoring and enforcement
- Existence of an Infant and Young Child Committee composed of representatives of government, women's groups, religious organizations, universities, medical professions, and trade and industry
- Weak status of the Nutrition Unit in the Ministry of Health
- Absence of a nutritionist in the UNICEF office to advocate and provide programmatic support for breastfeeding
- Absence of counseling on infant feeding in the context of HIV
- Little support for the Baby-friendly Hospital Initiative (BFHI)
- Minimal community-based breastfeeding activities

Based on their review and discussions in Uganda, Latham and Kisanga recommended independent monitoring and evaluation of the national IYCF policy and pilot PMTCT sites, elevating the status of nutrition in the MOH along with adequate staff and resources, the addition of NGOs to the Infant and Young Child Committee, establishment of an academic unit dealing with nutrition at Makerere University, training on Code monitoring and lactation management, revitalization of BFHI, and financial support for the Uganda Lactation Management Education Team (ULMET), a breastfeeding NGO.

2005 IYCF assessment. Another IYCF assessment was conducted in 2005 by a 12 person team made up of government and IBFAN Uganda representatives. The assessment was undertaken with technical and financial support from WHO to assist in developing a strategy in line with the 2002 Global Strategy for Infant and Young Child Feeding. The WHO/LINKAGES tool for assessing national practices, polices, and programs was used. Between the 2000 and 2005 assessments, the MOH appointed an IYCF focal person in the MOH to coordinate activities and revised the marketing regulations. The 2005 assessment recognized Uganda's solid policy framework while strongly urging the establishment of a legally appointed Infant and Young Child Nutrition Committee and approval of the 2005 updated marketing regulations; neither of these recommendations has been acted upon as of December 2008.

The 2005 assessment also recommended expansion and greater support for ULMET, roll-out of training on IYCF counseling, revisions to the maternity protection legislation, monitoring of BFHI implementation, support for BFHI external assessments, and a strategy and comprehensive district-level action plan with measurable and time-oriented targets. As with the 2000 assessment, the 2005 assessment noted inadequate dissemination of polices at lower levels and limited community outreach and support. The assessment team identified the need to integrate IYCF in pre-service education and to orient tutors in nursing, midwifery, and clinical officers' schools. The team also pointed out the need for a system for routine monitoring of IYCF and increased knowledge and skills on IYCF among health workers in emergency situations. Two of the recommendations—revision of the maternity protection legislation and a BFHI external assessment—were followed, but many have yet to be enacted.

2008 situation analysis of newborn health. This analysis noted several feeding practices that affect newborn health including early initiation of breastfeeding and exclusive breastfeeding. In the area surveyed as part of the situation analysis, many mothers knew the value of colostrum although some communities in the north and western regions considered colostrum unclean. Prelacteal feeds were common. Lack of breastmilk was reported as the main reason for not practicing exclusive breastfeeding. Although families recognized the importance of keeping a newborn warm, they did not practice skin-to-skin contact after birth. Gaps identified in the situation analysis include:

- Under-funding of the health sector

- Limited dissemination of existing policies and guidelines
- Critical policy gap in the postnatal period
- Heavy workload and limited skills of health providers

Recommendations proposed based on the situation analysis include accelerating roll-out of Kangaroo Mother Care, reaching all mothers and newborns within the first two days after birth, and training one member of the Village Health Team to support mothers and newborns starting with pregnancy and continuing during the early postnatal period.

Upcoming situation analysis of nutrition activities and program experience. The FANTA-2 Project plans to conduct a national situation analysis in 2009 to document the causes of undernutrition and the effectiveness of current approaches and interventions to address undernutrition. The report will map current child and maternal nutrition activities and identify promising practices for implementing community interventions.

The next sections expand upon the issues identified in the 2000 and 2005 assessments and discuss progress made in addressing barriers to improved IYCF practices in Uganda.

3.3 Program coordination and IYCF partners

IYCF program coordination is primarily the responsibility of the Nutrition Unit within the Ministry of Health (MOH). The MOH formed Technical Working Groups that focused on maternity protection legislation, regulations on the code of marketing of breastmilk substitutes, IYCF in the context of HIV and emergencies, and breastfeeding promotion and support. The work of the groups resulted in legislation, policy guidelines, discussion papers, and an integrated training curriculum. In 2002, following the World Health Assembly's adoption of the Global Strategy for Infant and Young Child Feeding, the MOH established an Infant and Young Child Feeding Task Force to raise awareness of the strategy. Over the years, the Task Force has met periodically to tackle particular issues, but there is no formal National IYCF Committee with ongoing oversight and responsibility.

The Global Strategy for Infant and Young Child Feeding recognizes the need for a wide range of actions and actors to achieve substantial impact, which is reflected in the organizations involved in breastfeeding protection, promotion, and support in Uganda. The following governmental, nongovernmental, and academic and research institutes are among those involved in IYCF.

Government of Uganda

Uganda's health system was decentralized to district and sub-district levels in the early 1990s. The role of the central government is policymaking, standard setting, resource mobilization, and quality assurance. Districts are responsible for planning, budgeting, and managing service delivery. The primary government agencies involved in IYCF are the following:

- *Nutrition Unit*. In 1993 nutrition was made a separate department in the Ministry of Health, but by the late 1990s it became a unit under the Child Health Division, which is one of the divisions in the Department of Community Health. Although the intent is to have a staff of five, the Unit is currently staffed by the head and a nutritionist who works on micronutrients. The nutritionist who served as the IYCF focal point for nearly 8 years has not yet been replaced since her departure in mid-2007.
- *The Department of National Disease Control* in the Ministry of Health overseas the AIDS Control Program. PMTCT has been the driving force for much of the work done on IYCF in recent years. The program manager for the AIDS Control Program was experienced in nutrition and a strong advocate of IYCF. In mid-2008 she was named head of the Nutrition Unit. A nutritionist attached to the AIDS Control Program continues to support IYCF activities through the PMTCT program.

Health professional bodies and research institutes

- *Uganda Action on Nutrition (UGAN)*. This coalition, formed in 1999, provides a nutrition forum for professionals who seek to advance the nutrition agenda both in policy and programming through coordination and advocacy efforts. UGAN organized the First Ugandan Nutrition Congress, which was held in February 2009. One of sessions focused on infant and young child feeding.

- *Makerere University*. Numerous studies on IYCF have been conducted by Makerere University.
- *Regional Center for Quality Health Care (RCQHC)*. The Center provides technical leadership in the Essential Nutrition Actions and HIV and nutrition.
- Pediatric associations are often among the primary champions of breastfeeding. In Uganda individual members are champions, but the association itself is not a major actor in breastfeeding promotion.

Non-governmental organizations and foundations

- *IBFAN Uganda Foundation Limited*. This national network of over 100 members was established in 2004 and is affiliated with the International Baby Food Action Network (IBFAN) and the World Alliance for Breastfeeding Action (WABA). Activities of IBFAN Uganda include technical support for the development of IYCF-related policies, guidelines, training materials, IEC materials, and job aides; training on PMTCT, IYCF counseling, and BFHI; BFHI external assessments and health and nutrition assessments on behalf of the MOH; PMTCT activities in two districts; and World Breastfeeding Week activities.
- *Uganda Lactation Management Education Team*. This breastfeeding NGO was formed in 1989 by those who attended the month-long lactation management course at Wellstart International in San Diego, California. ULMET currently has around 30 members, with six of them involved in community outreach activities. Members have conducted trainings, operated a lactation clinic, and participated in World Breastfeeding Week, but ULMET's current level of activities is greatly limited by lack of resources.
- *Clinton Foundation.* At some PMTCT sites, the Foundation provides Plumpy'nut for HIV-positive children.

UN agencies

- *UNICEF.* A separate section of this review discusses UNICEF's role in detail.
- *The World Health Organization (WHO)*. WHO's involvement in IYCF includes development of policies and guidelines, training of trainers, introduction of IYCF in pre-service curriculum, and adaptation of new child growth standards.
- *The World Food Program (WFP)*. WFP provides technical assistance, translates and prints IYCF materials, and supplies monthly take-home food rations for children 6-24 months old in some health facilities. The former IYCF focal point for the MOH joined the World Food Program in 2007 and remains actively involved in policy discussions and the development of IYCF materials and resources.
- *The World Bank*. Complementary feeding was one of three focus areas in the Nutrition and Early Child Development Project (1998-2004) financed through a Bank loan.

U.S. Government

The U.S. Government supports IYCF through the President's Emergency Program for AIDS Relief (PEPFAR), the Centers for Disease Control, and the United States Agency for International Development (USAID).[2]

Global Alliance for Improved Nutrition (GAIN)

The Alliance aims to foster partnerships between governments, the private sector, and civil society to use markets to deliver improved nutrition to the poorest. GAIN is exploring the potential for fortified

[2]Programs with IYCF components that have received U.S. Government support include the Northern Uganda Malaria AIDS & Tuberculosis Program, the Food and Nutrition Technical Assistance (FANTA-2) Project, BASICS, Uganda Program for Human and Holistic Development (UPHOLD), and the Delivery of Improved Services for Health (DISH) Project. Recipients of funds for PMTCT activities in Uganda include the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Protecting Families against HIV/AIDS (PREFA), and NuLife-Food and Nutrition Interventions for Uganda. Nu-Life is providing support for training on IYCF; World Breastfeeding Week activities; development of the IYCF policy, IEC materials, and job aides; and local production of a ready-to-use therapeutic food for severely malnourished adults and children living with and affected by HIV/AIDS. A new bilateral project will focus on child survival, family planning, and three nutrition areas: breastfeeding, complementary feeding, and feeding the sick child.

complementary food products.

The MOH and the development partners now have dynamic professionals heading many of the programs who are strong supporters of IYCF with extensive experience in this area. Several people interviewed remarked that with this group of dedicated, talented, and committed professionals, the IYCF agenda can move forward if there are adequate resources for implementation.

3.4 IYCF policies and plans

Creating a supportive policy environment. To raise awareness of the importance of nutrition and IYCF as a development issue, USAID supported a regional workshop for East Africa and a country workshop in Uganda using PROFILES, a nutrition policy analysis and advocacy process to quantify and explain the relationship between undernutrition and functional consequences and economic costs. In 1999 three Ugandans attended the regional workshop held in Tanzania. The following year 10 nutritionists, economists, and planners working in government ministries, training centers, research institutes, and NGOs participated in the PROFILES workshop in Uganda. Using global and national data and the computer-simulation model on the benefits of breastfeeding, the participants estimated that:

- 4,400 infants would die each year in Uganda from diarrhea and respiratory tract infections due to sub-optimal breastfeeding if breastfeeding practices remained unchanged.
- The fertility rate in Uganda would increase from 6.9 to 10.7 in the absence of breastfeeding.
- Breastfeeding saved the country from purchasing $325 million in breastmilk substitutes per year.

These estimates were incorporated in an advocacy presentation that also examined the impact of micronutrient and protein energy deficiencies on education and economic productivity. The presentation was made at the district level in Jinja and to a larger group of stakeholders and reporters in Kampala. The Ministry of Health recognized the value of the presentation and requested an update prior to the launch of the 2005 Food and Nutrition Policy[3]. In 2009 USAID will be providing support to update the PROFILES presentation using the 2006 DHS data and the modified PROFILES models that take into account estimates from the *Lancet* Child Survival and Nutrition series.

Advocacy Challenge

Complacency is one of the biggest challenges as reflected in the following quote: *"Breastfeeding rates are very good in Uganda, and it would be unreasonable to expect improvements in feeding practices."* (A. Taylor, 1998)

Developing IYCF policies, strategies, and guidelines. Several policies and plans aim to provide an enabling environment for improved infant and young child feeding practices.

The ***Uganda Policy Guidelines on Infant and Young Child Feeding*** (2008) addresses feeding the child under "normal" circumstances, feeding the HIV-exposed child and feeding children in other exceptionally difficult circumstances. It includes 9 policy statements, including on exclusive breastfeeding for the first 6 months, complementary feeding, maternal nutrition and HIV testing of pregnant women; it recommends exclusive breastfeeding of HIV exposed children unless replacement feeding is AFASS and early infant diagnosis; further, there are statements on appropriate management of malnourished children and low birthweight infants and on counseling and support for mothers in emergencies.

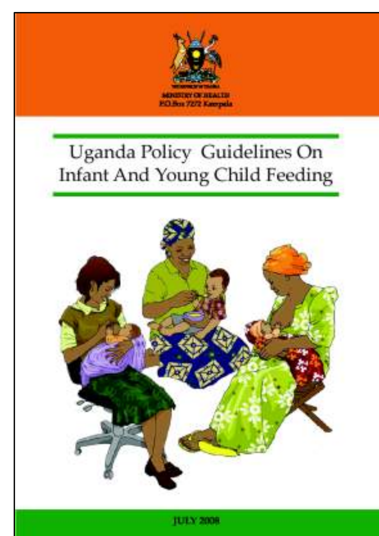
The Uganda Food and Nutrition Strategy (2005) encourages exclusive breastfeeding for 6 months, appropriate use of fortified complementary foods, measures that will enable mothers to continue breastfeeding upon return to work, compliance with maternity leave laws, and enforcement of regulations on marketing of breastmilk substitutes.

[3] Elements of PROFILES were included in a presentation made by the Vice President of Uganda at a meeting of the UN Standing Committee on Nutrition in Viet Nam in March 2008.

The Child Survival Strategy promotes family-oriented and community-based services and sets targets for 2008-2015 for exclusive breastfeeding, continued breastfeeding from 6-11 months, timely complementary feeding, and supplementary feeding for severely malnourished children. However, the overall contribution of nutrition to child survival gets scant attention in the strategy. UNICEF is providing assistance to strengthen the nutrition component of the strategy.

PMTCT guidelines. The HIV pandemic generated a number of policy documents. The first *Policy for Reduction of the Mother-to-Child HIV Transmission in Uganda*, issued in July 2001, recommended that the HV-positive mother not breastfeed. If for social or economic reasons this was not possible, she was advised to breastfeed exclusively for about 3 months. The 2001 PMTCT guidelines were revised in August 2006. They no longer recommend a 3-month period for exclusive breastfeeding and note the need for an evaluation in the Ugandan environment of the safety and efficacy of early cessation of breastfeeding and the provision of antiretrovirals. The conditions for replacement feeding are more explicitly stated in the 2006 guidelines by including the AFASS criteria: “Women living with HIV should be advised to avoid breastfeeding when replacement feeding is acceptable, feasible, affordable, sustainable and safe.”

HIV and infant feeding guidelines. Another set of recommendations were developed specific to HIV and infant feeding. In September 2001, *Policy Guidelines on Feeding of Infants and Young Children in the Context of HIV/AIDS* were released. They provided more detailed guidance than the PMTCT guidelines and were based on the woman’s HIV status and the ability and willingness of the HIV-positive woman to use commercial infant formula or animal milk. Development by WHO and UNICEF of a comprehensive Global Strategy for IYCF; findings from studies on the impact of exclusive breastfeeding, mixed feeding, and early cessation on HIV transmission; and the 2006 Consensus Statement emerging from the WHO HIV and Infant Feeding Technical Consultation prompted a re-examination of the 2001 guidelines. In November 2008 the government approved *Uganda Policy Guidelines on Infant and Young Child Feeding.* These new guidelines address feeding in three situations: normal circumstances, children exposed to HIV, and children in exceptionally difficult circumstances. The MOH, UNICEF, WHO, the World Food Program, and USAID provided financial and technical support for the formulation of these guidelines with the Executive Director of IBFAN Uganda serving as the primary author. A Technical Working Group[4] helped refine and finalize the guidelines. UNICEF plans to publish them in 2009.



The nine policy statements that frame the guidelines are shown in annex 3 along with the guidelines for implementation of the policy statement on infant feeding in the HIV context. Lack of consensus on the use of animal milk as a replacement food delayed finalization of the guidelines. WHO no longer recommends modified animal milk as a replacement food for infants under 6 months because of the difficulties of ensuring that the preparation is safe and nutritionally adequate. Some members of the Technical Working Group agreed with this position and wanted to eliminate animal milk as an option for younger infants. They pointed out that much of the animal milk on the market in Uganda is already diluted and that the source of the milk is unknown. Others felt that this option should be presented in resource-poor areas such as Uganda where animal milk is the one replacement feeding option that is available. After much debate, a compromise was reached by keeping animal milk as an option while including a cautionary note.[5]

[4] Members of the Technical Working Group include the MOH, UNICEF, WHO, EGPAF, RCQHC, CDC, IBFAN Uganda, PREFA, Nsambya Hospital, Mulago Hospital, Makerere University, and USAID-funded projects (A2Z, FANTA, and Nu-Life).

[5] The cautionary note reads as follows: “Inappropriate use of replacement foods is associated with high rates of illness and death, especially among infants 0-6 months of age. Until a standardized and nutritionally adequate fresh animal milk product becomes available, parents should be cautioned on the difficulties with accessing and feeding undiluted cows’ milk.”

The policy guidelines also include implementation strategies, indicators for monitoring and evaluating the guidelines, and identification of the roles and responsibilities of various parties. A detailed, budgeted action plan to roll out the implementation strategies has not yet been developed.

Guidelines for Integrated Management of Acute Undernutrition. These guidelines update and bring together in a single document guidelines for moderate and severe undernutrition and include a community component. They are divided into recommendations for infants 0-6 months old and for children 6 months and above. The guidelines discuss exclusive breastfeeding, relactation, and supplementary feeding for severely malnourished children and orphans. The new guidelines will be disseminated in 2009.

3.5 IYCF and related programs

In the late 1980s and early 1990s, the following events stimulated interest in breastfeeding promotion in Uganda.

- *Committed health professionals*. In 1988 and 1991 USAID supported the training of 11 Ugandan health professionals in the Wellstart Lactation Management Education Program based in San Diego, California. Those trained at Wellstart organized a workshop to draft a breastfeeding action plan and established an advocacy and educational group (ULMET). Save the Children UK provided ULMET with funds for a scientific meeting in 1990 and a one-day update seminar in 1992.
- *Shocking data*. The high rates of undernutrition reported in the 1988-89 DHS shocked policymakers who had believed for decades that nutrition was not a problem in their country.
- *Situational analysis*. The situational analysis of breastfeeding practices and programs in 1992 recommended that a program be put in place “to halt any deterioration of the current situation and, in fact, to strengthen particular existing practices so women practice optimal breastfeeding, realizing its full contraceptive and health potential.”
- *Global initiatives* such as the Innocenti Declaration and the Baby-friendly Hospital Initiative provided a road map for action.

Up to the time of the 1992 assessment, the limited efforts to promote breastfeeding depended heavily on a few dedicated health professionals who were willing to volunteer their time. In the following years, new programs, particularly IMCI and PMTCT, heightened the profile of infant and young child feeding. A focal point for IYCF in the Ministry of Health and several individuals in other key positions helped move the agenda forward. A description of IYCF’s place in various programs follows. These programs fit within the general framework of the Poverty Eradication Action Plan and Health Sector Strategic Plans. They tend to operate as vertical programs.

PMTCT PROGRAMS. Although the HIV pandemic called into question the long assumed benefits of breastfeeding, it ended up being the force that stimulated action and generated resources for IYCF in Uganda.

Experience in PMTCT pilot sites. Pilot interventions to prevent mother-to-child transmission of HIV were introduced in five hospitals in three districts of Uganda in 2000. Uganda was one of 11 countries receiving support from UNICEF for PMTCT activities. An evaluation of these projects by the Population Council (Rutenberg et al., 2003) noted that infant feeding remained the most challenging component of the PMTCT programs, particularly counseling on feeding options and support for the mother’s feeding choice. UNICEF provided Uganda and seven other African countries with free, generic infant formula to distribute to HIV-positive mothers who chose not to breastfeed. In Mulago Hospital in Kampala, a 6-month supply was provided to women who decided not to breastfeed. Staff used an infant feeding checklist to help determine whether the formula would be a safe option. Among 870 HIV-positive women who delivered, 43 percent chose to formula feed. Problems encountered included follow-up, lack of storage space, expiration of the formula, contamination, stealing, and supply interruptions (Koniz-Booher et al, 2004).

A review of the experience in the African PMTCT pilot sites showed that the free distribution of infant formula addressed the issue of affordability but not other critical issues. De Wagt and Clark (2004) summarized the situation as follows: "In many cases it (free formula distribution) has left mothers struggling with issues around feasibility, safety, and acceptability, increasing the risk of mixed feeding and consequently increased risk of morbidity and mortality due to diarrhea, respiratory infections and MTCT. There is also a real risk of negatively influencing infant feeding practices by HIV-negative mothers and mothers of unknown HIV-status." The former national PMTCT coordinator in Uganda said that mothers who were really in need of infant formula did not get it and that the logistics were "a nightmare." Based on these experiences, in 2002 UNICEF discontinued the procurement and distribution of free infant formula to PMTCT sites.

Scaling Up PMTCT programs. The number of health facilities offering PMTCT services grew from 5 in 2000 to 701 as of August 2008, representing 57 percent of hospitals and Grade III and IV Health Centers. Many pregnant women access antenatal care in Grade II Health Centers, most of which do not offer HIV-related services. Of the 83 districts, 10 currently have no stakeholder providing district-level support for PMTCT. UNICEF supports PMTCT activities in its 23 focus districts. The other main development partners supporting implementation of PMTCT services are the NGO PREFA (Protecting Families against HIV/AIDS) in 29 districts and EGPAF (the Elizabeth Glaser Pediatric AIDS Foundation) in 26 districts. Others involved in PMTCT in a more limited way include NUMAT (Northern Uganda Malaria AIDS & Tuberculosis Program), AVIS (an NGO founded in Italy), and PLAN.

The goal of the Government of Uganda is to reduce the current 27 to 30 percent risk of MTCT of HIV by 50 percent by 2010. An estimated 50-90 percent of MTCT could be prevented through PMTCT interventions. Uganda's PMTCT program consists of four components: 1) testing and counseling of all pregnant women attending ANC clinics, 2) infant feeding counseling, 3) family planning counseling or referral, and 4) antiretroviral prophylaxis or treatment for pregnant women living with HIV and their newborns within 72 hours of birth. All PMTCT services are free of charge. Of the 491 facilities sampled as part of the 2007 Service Provision Assessment Survey, only 15 percent offered all four services, and 23 percent provided HIV-positive women with counseling on infant feeding options. The Uganda HIV/AIDS Sero-Behavioral Survey of 2004-05 found that between 50 and 60 percent of women and men knew that HIV could be transmitted during breastfeeding.

The Inter-Agency Task Team on HIV Prevention among Pregnant Women, Mothers, and Their Children conducted a situation analysis of the PMTCT and pediatric AIDS program in October 2008 and identified several challenges (see box). Based on its review, the team recommended scaling up services in basic health centers (level II), reaching out to the community, and strengthening counseling and support services for IYCF. Annex 4 presents a summary matrix of the strengths, weaknesses, opportunities, and the threats identified by the Inter-Agency Task Team along with the team's recommendations.

PMTCT Challenges

- Limited access to PMTCT services and counseling on IYCF
- Insufficient human resources
- Inadequate skill level and knowledge for counseling
- Lack of linkages between services for early infant diagnosis of HIV and counseling on IYCF
- Inadequate coordination and management of IYCF at all levels
- Weak community and male involvement in IYCF-related activities

INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (IMCI). IMCI was introduced in Uganda in 1997. By 2005 over 8,000 health workers had participated in the 11-day IMCI course, which included some training in feeding the sick child in a non-HIV context. IMCI is currently being revitalized with the inclusion of pediatric HIV, newborn health and care, and community outreach.

INTEGRATED NUTRITION. The Regional Center for Quality of Health Care (RCQHC) and UNICEF have promoted the Essential Nutrition Actions (ENA) as a planning framework and a sensitization package for use at the district level. Key messages in Uganda focus on three areas: 1) optimal breastfeeding and micronutrients for infants 0-6 months, 2) optimal complementary feeding with breastfeeding and

micronutrients for children 6-24 months, and 3) women's nutrition (diet and micronutrients). In Uganda the ENA approach is more at the introductory than the implementation stage.

REPRODUCTIVE HEALTH. Uganda's reproductive health policy recommends breastfeeding within 30-60 minutes, exclusive breastfeeding, and breastfeeding on demand. These recommendations are also endorsed in the Roadmap for Acceleration of Reduction of Maternal and Newborn Mortality and Morbidity. The UNICEF Health Specialist for Sexual and Reproductive Health said that she was not aware of any program promoting the lactational amenorrhea method (LAM) of family planning. More commonly programs promote long duration of breastfeeding to suppress fertility. Responses in earlier DHS and language in the village health team training manual suggest that many do not distinguish between LAM as a contraceptive method and breastfeeding as a feeding practice.

NUTRITION AND EARLY CHILDHOOD DEVELOPMENT. The most significant effort to incorporate IYCF within an integrated program was the Nutrition and Early Child Development Project funded through a $34 million World Bank loan. The project was implemented from 1997-2003 and covered about 8,000 communities in 20 districts (the number would be larger now because many of the districts have been divided). Improving infant and young child feeding practices, particularly complementary feeding, was one of the project's three behavior change interventions along with deworming and early child development-related behaviors. The project included national-level advocacy, a multi-media campaign, and community activities including growth monitoring. Achievements included reduction in undernutrition in program areas from 24 percent to 17 percent among children less than 3 years of age. Exclusive breastfeeding increased as did the timeliness of complementary feeding and food diversity. For example, at 6 months 67 percent of infants were fed complementary foods in September 2001 compared to 90 percent in June 2003 (Cabañero-Verzosa , 2005). Despite these achievements, the project was not viewed as a success by some people who criticized the World Bank for setting up parallel structures rather than strengthening existing institutions that could sustain activities after the project ended. UNICEF's own programming approach in early childhood development focuses on early childhood centers, psychosocial stimulation, and child care training for parents with little recognition of nutrition.

COMMUNITY-BASED GROWTH PROMOTION. In the early 2000s UNICEF initiated growth monitoring and promotion in three districts and linked it with community-IMCI and the Parish Development Committees. From 2004 to April 2007 the USAID-funded UPHOLD Project trained more than 1,200 community growth promoters, introduced monthly village weighing sessions in over 500 villages in 5 districts, and reached approximately 15,000 children under 2 years of age each month. The growth promoters were trained to identify children with inadequate growth, counsel caretakers on the causes, and agree on a plan of action to get back on track. An evaluation conducted in 4 of the districts found that the proportion of children who were malnourished declined from 13 percent to 8 percent over an 8-month period (Stevens-Muyeti and Del Rosso, 2007).

FOOD-ASSISTED MCH PROGRAM. The Maternal and Child Health Nutrition Program was designed to increase attendance at antenatal and postnatal clinics, deliveries at health facilities, and the number of children attending growth monitoring sessions. This was to be achieved through improved MCH services and the provision of a monthly food basket of a fortified corn/soya blended food, vegetable oil, and sugar. WFP provides the take-home food rations to pregnant women, lactating mothers from birth to 6 months postpartum, and children 6-24 months old as part of a package that includes growth monitoring and promotion of exclusive breastfeeding and appropriate complementary feeding practices. These activities are implemented in health units in conflict and post-conflict areas. The ration is also distributed to HIV-positive women in food-insecure districts.

THERAPEUTIC FEEDING PROGRAMS. In response to the worsening nutrition situation in the early 2000s, UNICEF, the World Food Program, and the MOH supported 11 therapeutic feeding centers in northern and

eastern Uganda with therapeutic milks, high-energy biscuits, and food for the mothers. UNICF continues to support therapeutic feeding and provide ready-to-use therapeutic foods. Box 1 describes how Mulago Hospital, the national referral center and the teaching hospital for the Makerere University Medical School in Kampala, teaches mothers to improve feeding practices through its therapeutic feeding program.

Box 1. **Feeding Malnourished Infants and Young Children**

The MwanaMugimu Nutrition Unit at the Mulago Hospital in Kampala addresses undernutrition through nutrition education, advocacy, and rehabilitation. Last year the 100-bed unit admitted 1,500 children 1 month to 13 years of age with severe undernutrition and complications such as hypothermia, hypoglycemia, and edema. Those without complications were treated at outpatient clinics. The majority of the severely malnourished children are between 6 months and 2-3 years of age, and most of the mothers are 17-24 years old. Recently more infants less than 6 months old have been admitted. Approximately 40 percent of the children admitted to the rehabilitation unit are HIV positive. Most of them had previously visited a PMTCT site. Their malnourished state suggests that the mothers did not receive proper counseling on infant feeding at these sites.

Mixed feeding is common among both the HIV-positive and HIV-negative mothers. Mothers find it difficult to practice exclusive breastfeeding and start introducing other foods at 2 months. They frequently leave their babies with grandmothers when they go to work or to the market. The MwanaMugimu Nutrition Unit shows women how to express breastmilk, but the mothers doubt that they will find an appropriate place to express their milk. Use of infant formula is rare because of the expense. Mothers purchase cow's milk that is often 50-60 percent diluted when they buy it, which explains why it is called "white water." A few mothers have been able to relactate.

When a child is admitted to the rehabilitation unit, the first phase is stabilization. The mother feeds F-75 therapeutic milk by cup under supervision of a nurse. Children who are very sick are fed by gastric tube. This stage often lasts 5-7 days. During the transition phase, the child is fed F-100 therapeutic milk and porridge for 3-4 days. For the next 2-3 weeks of recovery, the child is introduced to other foods using what the mother has at home. Daily education sessions for the mothers focus on how to conserve nutrients, mix ingredients, practice good hygiene, and feed children. Those who have been in the program for a longer period demonstrate food preparation to the other mothers. The child is dismissed from in-patient care upon reaching 85 percent weight-for-height, which can take a total of 4-6 weeks. At one time the rehabilitation unit provided follow-up care in the communities, but lack of funds has eliminated this component of the program.

UNICEF provides therapeutic milks for the MwanaMugimu Nutrition Unit program, and the World Food Program supplies the ingredients to feed mothers breakfast and one meal per day. Attendance at outpatient clinics has increased with the provision of food for the mothers. In 2007 the Clinton Foundation started providing Plumpy'Nut, a fortified peanut paste. Children receiving in-patient care get enough Plumpy'Nut to cover 100 percent of their daily energy requirements while outpatients get a supply that meets 66 percent of daily requirements for almost 2 weeks. Plumpy'Nut is an incentive to return to the outpatient educational sessions. In 2009 UNICEF will support operations research on the use of supplemental Plumpy'Nut for moderate undernutrition.

3.6 Key program components

Code of Marketing of Breastmilk Substitutes

The first draft of a marketing code was written in 1984, revised in 1992, and adopted in 1997. Regulations No. 76, "The Food and Drugs (Marketing of Infant and Young Child Foods) Regulations," was placed under the Food and Drugs Act and regarded as a good attempt to translate the International Code into national legislation. The law called for a national committee to monitor implementation of the National Regulations. For a short time the BFHI Steering Committee on Infant and Young Child Nutrition served in that capacity, but it soon became inactive. A formal committee with health and trade inspectors was never established. A few people received training on Code monitoring by IBFAN Africa.

In 2003 Nestle attempted to weaken the National Regulations using the HIV pandemic as the justification. This attempt failed. In June 2004 the Interagency Group on Breastfeeding Monitoring (IGBM) in the United Kingdom conducted a monitoring exercise of compliance with the International Code and the Uganda Regulations. This was a joint project with UNICEF UK, the MOH of Uganda, and UNICEF Uganda. At the outset of the monitoring project, IGBM found that “there was little awareness of the existence of the National Regulations, even within certain departments of the Ministry of Health.” A survey, conducted in Kampala, involved cross-sectional multi-stage cluster sampling of 850 pregnant women and mothers of infants under 6 months old, interviews with 125 health workers in 12 health facilities, and an assessment of advertising and labeling. Violations cited included:

- Advertising of products under the scope of the International Code and National Regulations in shops and pharmacies
- Unauthorized distribution by companies of information materials aimed at health workers and the general public
- Provision of samples of products to women and health workers
- Extensive labeling violations. None of the infant formula brands assessed met all of the labeling requirements stipulated in the National Regulation. Violations included inappropriate language, lack of warnings of hazards associated with inappropriate formula preparation, and pictures idealizing breastmilk substitutes

The preliminary findings of the monitoring exercise were shared at a national feedback meeting attended by representatives from various ministries, medical schools, health facilities, donor agencies, manufacturers of infant food and drinks, and local media. The two main recommendations emerging from the survey findings and stakeholder meeting were: 1) to focus interventions on the primary violations identified through the assessment and 2) to strengthen implementation and monitoring systems at all levels. The assessment team called on the government to address the violations, sensitize health workers, and raise awareness among importers, distributors, and manufacturers of their responsibilities.

The IGBM project reignited interest in monitoring of the National Regulations, provided the government with tools for continuous monitoring, brought together a wide range of stakeholders, and prompted efforts to revise the Regulations. The Uganda Bureau of Standards and the Ministries of Gender, Labor and Social Development, Justice, and Trade and Industry were engaged in the revision process, emphasizing the importance of the Regulations in the context of HIV and including some of the subsequent resolutions adopted by the World Health Assembly. The revised regulations[6] were finalized in 2005 but have not been officially approved and gazetted by the government, so the 1997 legislation remains in effect. The explanation given for this inaction is “lack of leadership.” One of the problems is lack of coordination among the MOH, National Bureau of Standards, Ministry of Trade, and Ministry of Justice, all of which have oversight responsibilities for implementation of the National Regulations. One key informant said, “These agencies are not clear about their roles. Everyone expects the other to take responsibility.”

Code Challenges

- Leadership
- Coordination
- Ongoing monitoring

Maternity Legislation

As part of the Uganda Employment Decree of 1975, working women were granted 6 weeks paid maternity leave. In 2000 the International Labor Organization adopted the new Maternity Protection Convention (C183), prompting the formation of a National Steering Committee in Uganda to advocate for increasing the duration of maternity leave and extending

Maternity Protection Challenges

81 percent of Ugandan women are classified as currently employed, and 75 percent of these women are engaged in agriculture (DHS 2006).

[6] The revised regulations have a slightly different title: The Food Safety (Marketing of Infant and Young Child Foods) Regulations. In 2004 UNICEF’s Code advisor in New York reviewed the draft revisions and expressed concern that they actually weakened the Regulations. The author did not learn during her field visit the extent to which the UNICEF Code advisor’s comments were taken into account in the final revisions. The IBFAN Executive Director said that the revised Regulations were stronger than the original document.

maternity leave benefits to all working women. The committee comprised representatives of the MOH; the Ministry of Gender, Labor, and Social Development; the Ministry of Justice and Constitutional Affairs; and the labor union. To inform their work, the committee commissioned a study in 10 districts of 407 employers and employees in the public and private sectors (ULMET, 2007). The study found that some women feared reprisals by employers if maternity leave were extended. Most of the organizations surveyed reported providing full salary during maternity leave, but the duration of leave varied from 1 week to 4 months in both the private and public sectors. Many women were unaware of the rights provided by the law.

Thanks to the advocacy efforts of the committee and others, Employment Act No. 6 of 2006 became effective August 7, 2006. This Act provides job protection and 60 working days (12 weeks) of paid maternity leave for all employed women. At least four of these weeks must follow childbirth. The employer is expected to pay for the leave. The Act also grants 4 working days of paternity leave immediately following childbirth. The maternity legislation does not affect those women who engage in agricultural work.

A Technical Maternity Protection Working Group has been formed to improve accessibility to maternity rights and benefits. The group is comprised of members from the Ministries of Health, Labor Gender and Social Development, and Justice and Constitutional Affairs. Other members include representatives of IBFAN Uganda, ULMET, the National Organization of Trade Unions, and the Federation of Uganda Employers. The Technical Maternity Protection Working Group is advocating for amendments to the law that would bring it in line with provisions of ILO Convention No. 183, including at least 70 working days (14 weeks) of paid maternity leave, breastfeeding breaks, and a designated space in the workplace for breastfeeding or breastmilk expression. Specific objectives are to:

- Increase awareness of the rights and benefits of maternity protection in the formal and informal sectors and the general public
- Advocate for ratification of Maternity Protection Convention No. 183 by June 2011
- Contribute to the development of regulations to accompany Employment Act No. 6 of 2006 that provide guidance on what is permissible and how to implement the law

A proposal[7] was drafted July 2008 outlining strategies to achieve these objectives through advocacy, communication, and social mobilization over a three-year period. The Technical Working Group is seeking funding for the proposed activities.

Baby-Friendly Hospital Initiative (BFHI)

BFHI has played a fairly minor role in Uganda compared with many countries. In response to the launch of BFHI by UNICEF and WHO in 1991, Uganda formed a BFHI Steering Committee on Infant and Young Child Nutrition. In 1995 Uganda conducted an external assessment of 15 hospitals. One hospital and one health center were awarded baby-friendly status. In the following years, BFHI received little attention. A BFHI master trainer said, “No one provided necessary support, not even UNICEF.”

In 1999 the BFHI and Health Facility Practices Policy in Uganda was developed. The Global Strategy for Infant and Young Child Feeding, adopted by the World Health Assembly in 2002, generated renewed interest in BFHI. In 2005 Uganda adopted the strategy and disseminated the concept through a national workshop. To revitalize BFHI, the MOH trained staff in 38 health facilities using the integrated course on IYCF, which includes sessions on BFHI, and developed and disseminated a guide that outlined the role of the health worker in achieving baby-friendly status. Internal assessments of the 38 facilities indicated that 34 were ready for external assessments.

[7] The proposal indicates that the Technical Working Group will be chaired by IBFAN Uganda, with the secretariat based in the Ministry of Health. The Technical Working Group will oversee overall coordination of activities while an IBFAN-appointed Administrative Secretary will be responsible for day-to-day management. The budget is approximately $194,000.

In March/April 2006 UNICEF arranged for three external consultants to support 10 national trainee assessors (Kisanga et al, 2006). Fourteen steps were used to assess the facilities—the standard Ten Steps to successful breastfeeding plus three specific to Uganda and an IBFAN Africa step on HIV and infant feeding.[8] Fifteen of the 34 assessed facilities were designated baby-friendly.

The assessment team found that "On the whole the performance of facilities was average." The team reported:

- Few staff trained in BFHI
- Lack of awareness among top-level decision makers of the benefits of breastfeeding and issues regarding HIV and infant feeding
- Limited access of mothers to appropriate information materials
- Incomplete understanding of marketing regulations
- Unclear line of authority for BFHI in many facilities
- Weak link with the community

In the view of the assessment team, training is the critical element of BFHI. The team recommended decentralized training, sensitization of hospital managers on BFHI, finalization and dissemination of counseling materials, awareness raising on the marketing regulations, designation of a special body/organization to support and supervise BFHI implementation, inclusion of IYCF activities in district work plans, and strengthening or formation of community support groups.

In August 2006 UNICEF supported the participation of two Ugandans in a multi-country workshop in South Africa on BFHI in the context of HIV and a training of trainers on the updated BFHI assessment tools. In 2008 an internal assessment was conducted of 40 facilities. Many of these facilities are requesting an external assessment, but funding has not been secured. PMTCT facilities are among the initial targets for scaling up BFHI.

BFHI Challenges

Facility-based deliveries represent only 41 percent of all deliveries. In rural areas, 62 percent of deliveries occur in the home.

Scaling up BFHI is an enormous and costly undertaking. Uganda has 57 government, 44 NGO, and 3 private hospitals. Health services are also provided at more than 2,000 health centers. More than 1,600 health facilities provide services for normal deliveries.

Significant gaps must be addressed as identified in the 2006 Demographic and Health Survey and the 2007 Service Provision Assessment Survey, including:

- ***Missed opportunities for counseling on early initiation and exclusive breastfeeding during antenatal care.*** Approximately 97 percent of pregnant women attend at least one visit, but only 47 percent follow the MOH's recommendation of four visits during pregnancy. The 2007 Service Provision Assessment Survey found that only 32 percent of pregnant women were counseled on exclusive breastfeeding in the current or previous antenatal care visit.
- ***Big gap in postnatal care.*** The postpartum period is a critical time for the establishment of good breastfeeding practices and resolution of feeding problems. However, less than one-fourth of women receive care *within the first two days* postpartum while three-quarters receive no care *within in the first six weeks* after delivery. Fifty-nine percent of women delivering in a health facility and 87 percent delivering at home receive no postpartum

[8] Uganda-specific steps are: Step 11: Ensure that all newborns delivered in hospitals or clinics receive BCG and polio "O" vaccine before discharge; Step 12: Ensure that all mothers delivered in health facilities and clinics receive 200,000 IU of vitamin A capsule after discharge. Non-breastfed infants should receive 50,000 IU of vitamin A before discharge. Step 13: Issue a properly filled in Child Health Card for each newborn, and the "Woman's Passport" where available, to the mother before discharge from the maternity ward. Step 14: Support infant feeding in the context of HIV. (Some argue that a separate step on HIV is not needed because these issues are addressed in the updated criteria for the Ten Steps.) Uganda later added Step 15: Comply with the Food Safety (Marketing of Infant and Young Child foods) Regulations 2005.

care (DHS 2006). In the survey conducted as part of the situation analysis of newborn health, only 22 percent of the women who had a postnatal visit were given information about breastfeeding.

- ***Provision of prelacteal liquids to newborns***. This detrimental practice continues as a routine component of newborn care in 14 percent of facilities. (Service Provision Assessment Survey)

Breastfeeding/IYCF training and education

In-service training: In the early 1990s, training was provided in breastfeeding through a 10-day diarrhea/lactation management course. Of the 10-day course, 3½ days were devoted to breastfeeding. As mentioned earlier, the introduction of IMCI in the late 1990s provided another channel for breastfeeding training for thousands of health workers. In recent years decentralization has resulted in the scaling down of training activities. Central funds are used to train tutors and provide job aids and equipment for visual aids. The districts are now responsible for training, but some districts have an annual budget of $300 to train health workers on a variety of topics. For the most part, training depends on donor funding.
In-service training presents an enormous challenge. The MOH human resources inventory from 2004 shows that health facilities in Uganda are staffed by approximately 950 doctors working in government and private not-for-profit health facilities, 2,075 clinical officers, 3,060 midwives, and 6,500 nurses. The Health Sector Strategic Plan II sets as one of its objectives that 90 percent of trained health workers are exposed to high quality integrated in-service training for at least 2 but not more than 4 weeks biannually.

The 2007 Service Provision Assessment Survey asked health care workers in facilities providing maternity services if they had received in-service training in exclusive breastfeeding. Of those who responded affirmatively, 9 percent had received the training in the previous 12 months and 13 percent 13-35 months before the survey.

As part of this review, an attempt was made to gather data on IYCF training. An official list of the dates when courses were conducted and the numbers trained was not made available. The numbers presented below are estimates given by those interviewed.

Breastfeeding training. In 1988 several Ugandan health professionals attended the month long *lactation management course* at Wellstart International. In 1989 the enthusiastic team members started a breastfeeding NGO (ULMET) and the first lactation clinic in sub-Saharan Africa.[9] Some became master trainers, BFHI assessors, and founders of IBFAN Uganda. Between 1992-1995, a number of Ugandans participated in a course on *Breastfeeding Management and Promotion in a Baby Friendly Hospital: An 18-hour Course for Maternity Staff.* For many years the course was not offered as attention to BFHI waned. In 1999 around 12 national trainers received training in the WHO *Breastfeeding Counseling* 5-day course.

HIV and infant feeding training. Nearly all health providers have attended the 5-day PMTCT orientation, which includes a 3-hour session on infant feeding in the HIV context. Some have proposed a 12-day PMTCT with 6 days in the classroom and a 6-day practicum. When Uganda's PMTCT program started in 2000, some people advocated for WHO's 3-day *HIV and Infant Feeding Counseling: A Training Course.* At that time the BFHI course had not been offered in several years, and few people had been trained in breastfeeding counseling. The head of the PMTCT program urged consolidating these courses rather than focusing solely on HIV and infant feeding.

Integrated IYCF counseling training. Uganda was the first country in sub-Saharan Africa to integrate elements of the BFHI, breastfeeding counseling, and HIV and infant feeding counseling courses. This happened before WHO developed the integrated IYCF course. The introduction of the Uganda facilitator's

[9] The clinic, attached to Mulago Hospital in Kampala, has been in operation for nearly 20 years. It operates 4-5 days a week. At each clinic a volunteer nurse and a nurse employed by the hospital help 10-15 mothers with feeding problems.

manual states that such a course is needed because "little time is assigned to infant and young child feeding counseling and support skills in the pre-service curricula of doctors, clinical officers, nurses, and midwives." The course was also designed to address the concerns of health providers who were reluctant to promote breastfeeding because of MTCT of HIV.

Presently there are approximately 50 national-level master trainers in the integrated IYCF course. The master trainers have received overhead transparencies and 35 mm slides, participants' manuals, forms and checklists, story cards, a counseling flipchart, five video tapes on breastfeeding topics, four life-size dolls, and four model breasts. Around 30 people[10] have been trained per district in the integrated course, but roll out has been slow, partly because the districts wanted the training integrated with immunization.

Uganda's integrated IYCF course has recently been revised so that it will take 5 days rather than 6. NuLife funded the first training of trainers using the revised course in November 2008 and will support the roll out training for counselors at PMTCT sites as well as regional and district nutritionists. Over a 2-year period, NuLife plans to train 1,600 counselors in 120 facilities in 79 districts.

ENA training. RCQHC and UNICEF developed a 3½ day training-of-trainers program on the Essential Nutrition Actions. UNICEF funded one of the trainings. With the change of staff at UNICEF, ENA training was dropped.

Training Challenges

- Huge demand for in-service training
- Funding gap
- High staff turnover
- Inadequate counseling skills
- Limited follow-up and mentoring
- Technical updates and inclusion of skills training needed in pre-service curricula

The MOH intends to complete development of an IYCF training strategy by early December 2008 and to develop a 1½ day orientation package for community workers on IYCF. If funding is available, the MOH plans to train nutritionists in all regions who will then be responsible for training district trainers.

Mentoring. Inadequate follow-up and supervision is frequently mentioned as a weakness of in-service training. The NuLife Project will address this problem by identifying a nutrition focal person for each of its PMTCT facilities and conducting monthly site visits.

Pre-service education

Uganda has 41 medical training schools, 30 run by the government and 11 by NGOs. Many of the training schools lack tutors and infrastructure. Until 2007, pre-service education was the responsibility of the MOH. The Ministry of Education and Sports now provides oversight with the MOH retaining the role of defining standards and guiding the Ministry in the cadres and numbers to be trained. Four statutory professional councils are responsible for ensuring good professional practice and quality of care: the Medical and Dental Practitioners Council, the Nurses and Midwives Council, the Allied Health Professional Council, and the Pharmaceutical Council. Pre-service curricula are reviewed every 5 years, but information can be updated before then through an addendum.

With its more limited training role as a result of decentralization, the MOH is focusing on pre-service education. In 2007 the MOH, IBFAN, and WHO trained approximately 25 tutors from 10 health training schools in the eastern region in the integrated IYCF course. Another training for tutors was to be held in the western part of the country at the end of 2008. Funds have not yet been made available for similar trainings in other regions.

Preparing doctors, nurses, and midwives. RCQHC engaged a consultant to review pre-service curricula for HIV and nutrition content in the training programs for doctors, nurses, and clinical officers. The consultant also examined the IYCF content and found that it needed updating. In the undergraduate medical program,

[10] From 2002 to 2005, 528 health workers had received training in the integrated course at the national level. Those trained are expected to conduct ongoing training at health facilities. One person estimated that by the end of 2008, a total of 3,000-3,500 health workers had been trained.

breastfeeding is only mentioned. Counseling and skills such as positioning and attachment are not taught. One doctor interviewed mentioned that the messages on breastfeeding that students are getting in classes taught by obstetricians are often different than messages in classes taught by pediatricians. In collaboration with the Centers for Disease Control and Prevention, Jhpiego (an international health organization affiliated with Johns Hopkins University) has provided technical assistance to update and strengthen the PMTCT curriculum used in pre-service education.

Preparing specialists in public health, nutrition, and food science. The Institute of Public Health at Makerere University enrolls 20 students (mostly doctors) each year in its 2-year masters program in public health. Discussions on offering a masters program in public health nutrition are underway. The Department of Food Science and Technology trains 35-40 students in its undergraduate program. This program has a strong nutrition component and an internship. The Department also offers masters programs with 5 students majoring in food science and technology and 15-20 in applied human nutrition. From 1-2 students enter the PhD program in applied human nutrition.

Communication

Qualitative research has been used on several occasions to guide the promotion of IYCF in Uganda. In 1993 the researchers concluded that "The AIDS scare has not caused changes in breastfeeding patterns in any significant way, and therefore AIDS and breastfeeding need not be a central component of a public information campaign"(Wellstart, 1994). Both the Nutrition and Early Child Development Project and the DISH Project reviewed the literature on infant feeding in Uganda and conducted formative research and household trials of improved practices (TIPs) to aid in the development of IYCF messages for their mass media campaigns. The consultant who participated in the formative research recommended moving beyond general statements that "breastfeeding is best," addressing specific feeding behaviors, and determining which complementary feeding messages could be communicated via radio and which require interpersonal communication and messages tailored to the child's age and individual situation.

Annex 5 lists various information, education, and communication (IEC) materials to promote improved feeding practices in Uganda. A more comprehensive list will be available in 2009 by the FANTA-2 Project based on its assessment of current and past BCC materials, programs, and communication channels to improve care and infant feeding practices. The initial findings from the FANTA-2 assessment include lack of: 1) a central inventory for materials, 2) a communication strategy, 3) standards for production of materials, 4) materials in multiple languages, 5) simple, doable messages, and 6) mechanisms for tracking of materials.

Communication strategies are currently being developed, updated, or planned for child survival, newborn health, and nutrition. Resources currently available on IYCF include the following:

Print materials and job aids. In 2000 the MOH produced a 16-page handbook for health workers on *Facts about Breastfeeding* recommending exclusive breastfeeding up to 6 months. The MOH has produced numerous posters and materials with breastfeeding and BFHI messages, often in association with World Breastfeeding Week (WBW). Materials produced featuring the 2006 WBW theme on the Code of Marketing of Breastmilk Substitutes included 1,000 posters, 2,000 leaflets for health workers on the regulation of breastmilk substitutes, a leaflet for infant food manufacturers, a fact sheet for policymakers, and 20,000 leaflets for the general public on the benefits of breastfeeding. Materials were translated into seven languages and distributed through health centers and the media. A

The MOH has also been involved in the development of IYCF job aids for various programs described below.

- HIV and infant feeding job aids. In 2003 the Regional Centre for Quality of Health Care developed *Counseling Mothers on Infant Feeding for the Prevention of Mother-to-Child Transmission of HIV*, a job aid for primary health care workers. More resources on HIV and infant feeding became available in 2006 with the production of a question and answer guide on *Feeding of Infants & Young Children in the Context of HIV/AIDS*, take-home flyers for mothers on feeding options, and counseling cards. These materials were adapted from the ones developed in Tanzania through the USAID-funded Quality

Assurance Project. In 2008 they were updated and field tested with the technical and financial support of NuLife. The updated job aids are intended for use in any context, not just an HIV setting. WFP will translate and print the 7 "how to" take-home flyers for mothers in 7 languages, and various development partners will contribute to printing the companion resources. *Infant and Young Child Feeding Counseling Guide: How to Use Job Aides to Counsel Mothers* has been drafted to train counselors in the use of these IYCF job aids with plans to develop a shorter version for training community-level service providers. Another resource—*Prevention of Mother-to-Child Transmission of HIV (PMTCT) Social Mobilization* Handbook—includes information on feeding infants and young children in the context of HIV/AIDS.

- IMCI job aids. In 1997 Uganda adapted WHO and UNICEF's IMCI job aid for assessing a child's feeding, identifying feeding problems, and counseling mothers to increase fluids during illness. Trials of improved practices were conducted in eight districts in different regions to develop the messages, which were translated in 11 languages. The information generated from the TIPs was included in the IMCI "Counsel and Follow-Up the Mother" chart book and mother's cards.

- Growth monitoring and promotion job aids. The UPHOLD Project's set of 16 integrated health counseling cards include 4 cards on feeding according to a child's age. These feeding cards were adapted from the 11 feeding cards developed by the BASICS Project. One of the BASICS cards is shown on the right.
- ENA job aids. RCQHC gave seed money to UNICEF to adapt the Essential Nutrition Actions to the Uganda context. UNICEF developed an ENA package of tools.[11] Originally UNICEF planned to print the tools, but with the departure of the ENA advocate at UNICEF, this has not happened. Catholic Relief Services used the self-assessment tools in some areas where it works.

Health and nutrition counseling cards. UNICEF produced 12 health and nutrition counseling cards for its work in the conflict-affected region of Karamoja, a harsh, semi-arid region in northeastern Uganda with the worst health indictors in the country. Three of the cards focus on feeding (birth to 6 months, 6-24 months, feeding of the sick child). UNICEF has also contracted with Mango Tree, a private company in Uganda that produces educational materials for the health and education sectors, to create 10 laminated counseling cards in 6 languages and a flip chart made of 10 half-size grain sack charts for use by members of Village Health Teams. These job aids focus on the seven basic Family Care Practices promoted by UNICEF which include early and exclusive breastfeeding for 6 months, timely and sustained complementary feeding, and timely care of the sick child.[12]

Multi-channel campaigns. The Nutrition and Early Child Development Project conducted a national multi-media campaign that included 30-second radio spots on nutrition, newspaper inserts about healthy diets,

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[11] The ENA package consists of a list of a booklet with key messages for use by health providers and community health workers; reference materials; pre and post test tests on exclusive breastfeeding, complementary feeding, and women's nutrition; facility-based and community-based performance self-assessment tools to examine the essential nutrition actions at contact points with health workers and critical stages in the life cycle of children and women; a community-based performance self-assessment tool for use by those working with persons living with HIV/AIDS, including feeding options for HIV-positive mothers; and PowerPoint slides on the technical topics.

[12] The other Family Care practices are hand washing, oral rehydration therapy for diarrhea, insecticide-treated nets to prevent malaria, timely and complete immunization of children and mothers, and timely care for pregnant women.

posters on "How to make porridge" and "Feeding a sick child," and a resource book on "Growing up well in Uganda." The USAID-funded Delivery of Improved Services for Health Project (1994-2001) promoted improved infant feeding practices along with other reproductive health and maternal and child health interventions using print and mass media. From 1999-2001 the DISH campaign, "Give your baby the best," promoted improved infant nutrition practices. The campaign included a mixture of print and electronic media combined with educational community activities.

Newspaper and mass media. World Breastfeeding Week is a heightened period for newspaper and mass media coverage of IYCF. One year UNICEF produced a breastfeeding video on "The First Meal" for use during the week. UNICEF/Uganda often contracts with radio stations for talk shows and spots during WBW. At the end of 2006, Uganda had over 160 licensed radio stations. More than 60 percent of radio stations operate outside of Kampala, and 69 percent broadcast in local languages (Stedman Group, 2008). Messages are also broadcast over television although the coverage is much more limited. Newspaper and magazine reading is concentrated in urban areas. In 2006 UNICEF started working with Mama Tendo, a parenting columnist and mother of two who writes a column "From a Mum's Heart" in Kampala's *New Vision* newspaper. As part of WBW 2008, *New Vision Woman* ran several articles on breastfeeding.

Communication Challenges

- 7 major languages
- 39% of women are illiterate and 10 percent can only read part of a sentence
- 25% of women had no exposure to newspaper, radio, or TV in the week prior to the DHS survey

Events. Media sensitization workshops, advocacy events, and ceremonies launching WBW have all been held in connection with World Breastfeeding Week.

UNICEF recently commissioned media audience research (Stedman Group, 2008). Sources of information on UNICEF's exclusive breastfeeding messages were as follows: radio, 47 percent; posters, 7 percent; hospitals/clinics, 19 percent; and health workers, 11 percent. The percentages were similar for complementary feeding messages. The study found that "language was one of the main barriers to accessing information and this was compounded by the high levels of illiteracy in the target districts." The research firm recommended that UNICEF use drama, dance, radio, and social and community gatherings in its communication strategy. The DHS reported that seven in ten women listen to radio at least once a week.

Community-based promotion and support

The community is the underdeveloped component of most programs. Uganda's Child Survival Strategy states that "Ownership and accountability for outputs by communities and local leaders is yet to be fully appreciated." Community interventions have generally been delivered through vertical programs that are not well linked to health facility-based services. As noted in the Child Survival Strategy, outreach by health facilities has not been functional because of inadequate human resources and commodities as well as lack of motivation, transport, and a standardized outreach and monitoring package. To engage the community, UNICEF trained Parish Development Committees, but members of these volunteer committees often experienced burn-out and frustration because their action plans were not utilized and they were unable to attract resources (Mid-Term Review, 2003).

The Nutrition and Early Child Development Project and the UPHOLD Project demonstrated that community-based activities can contribute to improved practices, but both of these projects have ended. Other community activities have usually been small scale or research studies, such as the use of peer counselors for support of

exclusive breastfeeding (Nankunda et al., 2006). In the late 1960s to the early 1990s, village health committees, community health workers, and community resource persons operated to some degree in the community. However, many community-based structures collapsed because they lacked facilities, clearly defined roles, and support from local governments. The village health committees that did exist were usually initiated and supported by external agencies.

Community-IMCI, which was launched to a limited degree in 2001, the creation of village health teams (VHTs) as part of the government's strategy of decentralization, and plans by the FANTA-2 Project to design a scalable community-based nutrition program offer an opportunity for IYCF promotion and support. The strategy for reaching communities and households through VHTs was outlined in the Health Sector Strategic Plan I. The implementation strategy for VHTs includes advocacy at all levels; social mobilization for partnership building; resource materials for advocacy, IEC, and training; structures linking households and existing local structures; and training. The aim is to form 9-member teams, although some are suggesting starting with 4 members. The guidelines indicate that women should represent at least one-third of the team. Each member is responsible for 20 households and is selected by popular vote after sensitization and consensus building of all village members. Existing community resources that can be part of the VHT include community health workers, community drug distributors, condom distributors, and traditional birth attendants.

The role of the VHTs is to promote more focused health interventions at the community level, identify needs, foster positive health care-seeking behavior, strengthen mechanisms for data collection and social mobilization, and serve as the link between the community and health providers. Establishment of the VHTs has been slow and not well coordinated. At present, VHTs are estimated to cover about 21 percent of the country. The Health Sector Strategic Plan II sets as its goal 100 percent of villages with trained VHTs by 2010. The VHTs are viewed as a huge opportunity, although there is skepticism among some regarding their sustainability as well as concern that the VHTs are being overloaded as "everyone is trying to use them."

The training manual for village health teams covers communication, community mobilization and empowerment, monitoring, and 21 health topics, including "food and nutrition" and breastfeeding. Both modules are weak and the one on breastfeeding contains some incorrect information. The training manual is currently undergoing revision.

Community Challenges

- Training large numbers of volunteers
- Linking with health facilities
- Ensuring adequate time for individualized counseling
- Providing adequate mentoring, encouragement, and incentives

3.7 HRBAP and gender mainstreaming

UNICEF Uganda shifted from a needs-based to a human rights-based approach to programming (HRBAP) in 2001. The Mid-Term Review in 2003 described it as "a leap in programming conceptualization" that was "met with mixed responses" by those that felt HRBAP excluded some basic needs. From 2001-2003 UNICEF Uganda trained 15,000 members of Parish Development Committees in the human rights-based approach. Despite this training, members of the committees (volunteers) often failed to fully understand the approach. Moreover, claim-holders were not fully aware of their rights. The Mid-Term Review in 2003 pointed out that "The mother and the child are rights-holders. However, the mother is also a duty-bearer. She has to make important decisions (such as exclusive breastfeeding or another safe infant feeding option), in order to protect the rights of her child to survival, growth, and development."

The human rights-based approach to programming and gender equality continues to form the basis for UNICEF's 2006-2010 Country Program. The principle guiding the program is that a child has a right to survival, development, and participation. An evaluation of HRBAP was conducted in 2006, with recommendations incorporated in 2007/08 planning guidelines. The evaluation report pointed out the

challenges of HRBAP in a relief context. “Relief-based programmatic response is disempowering people, dimming their aspiration, and blurring their visions.”

3.8 UNICEF’s role and resources

Role. UNICEF provides technical assistance and advocacy on IYCF policies and convenes partners to develop guidelines, strategies, and IEC and training materials. UNICEF supports implementation of PMTCT,[13] training on IYCF counseling and ENA, printing of IYCF resources and communication materials, BFHI internal and external assessments, occasional research studies on IYCF issues, World Breastfeeding Week activities, development of guidelines and a training package on integrated management of acute undernutrition, and provision of food for therapeutic feeding centers and outpatient therapeutic centers.

UNICEF’s programming in Uganda has evolved over the years. UNICEF’s 2001-2005 Country Program focused on health and nutrition, particularly immunization; HIV/AIDS; basic education; community and school water, hygiene, and sanitation; and children in armed conflict. Intensified conflict and the worsening nutritional status during the 2001-2005 Country Program led to a heightened focus on humanitarian assistance and therapeutic feeding. UNICEF’s 2006-2010 Country Action Plan focuses on those districts affected by conflict at the time the plan was developed as well as post-conflict affected districts. The 23 districts cover around 6 million people.

As the conflict in the north diminished in the last two years and nutrition status improved, programming started to shift from emergency to transition to development. Currently there is a renewed push for acceleration of child survival and development to achieve the health-related Millennium Development Goals. Nutrition is one of eight Child Survival focus areas.

At the district level UNICEF’s current program supports capacity building, social mobilization activities, and behavior change communication to improve IYCF practices. Expected outcomes of the program in UNICEF’s focus districts include at least 60 percent of households using appropriate family care and feeding practices for child survival, growth, and development and at least 50 percent of newborns and their mothers receiving a visit within 3 days of birth by health providers or trained community workers. The Mid-Term Review of the 2006-2010 program reported that among the achievements to date were IYCF policy guidelines, a revised PMTCT policy, treatment of 8,000 severely malnourished children with a case fatality rate below 9 percent, and a 23 percent increase in the number of pregnant women attending antenatal care in UNICEF-supported PMTCT sites.

Resources. The four priority nutrition areas for UNICEF in 2009 are: 1) capacity building for and support of the treatment of severe acute undernutrition, 2) initiation of large-scale community-based nutrition interventions focusing mainly on promotion of adequate IYCF practices, 3) support for micronutrient interventions through Child Health Days, and 4) support for the development of a Nutrition Information System including a nutrition surveillance system. UNICEF currently supports the government’s therapeutic feeding program in 14 health facilities. Between $300,000–$350,000 of UNICEF Uganda’s nutrition budget for 2009 is for Child Health Days and approximately $3 million for the treatment of severe undernutrition (supplies and funds for NGOs to implement their programs).

During the first three years of UNICEF’s 2001-2005 Country Program, the rights to health and nutrition represented 33 percent of total expenditures, much of it used for the purchase of vaccines and related safety and cold chain materials. From 2006-March 2008, child survival and development (CSD) represented approximately 45 percent of UNICEF Uganda’s $112.7 million budget allocation. UNICEF Uganda has budgeted $155 million for 3 years (2008-2010) for implementation of its Accelerated Child Survival and

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[13] The PMTCT service delivery package includes training of health care providers, supervision support to District Health Teams, community awareness to increase demand for services, routine HIV counseling and testing, procurement of drugs and supplies, improvement of space for counseling and testing, improvement of obstetric care, support to early diagnosis of HIV in children and referral for care and support (Children and AIDS Technical Sector Report, March 2008.

Development Strategy. Nutrition and PMTCT interventions represent approximately 5 percent and 10 percent respectively of this budget. Most of the budget is for three main areas: water and sanitation (25 percent), malaria (20 percent), and immunizations (20 percent).

UNICEF's budget for the promotion of optimal IYFC practices has been termed "marginal". The budget line item for IYCF in 2007 was $170,000. Examples of previous planned expenditures for IYCF activities include $115,000 for training of BFHI assessors and for internal and external assessments in 30 hospitals and $9,000 for printing 5,000 posters and 10,000 leaflets during World Breastfeeding Week. The Code monitoring exercise in Uganda in 2005 cost 12,925 pounds (approximately $23,500).

The Government[14] relies on donors for funding for IYCF and nutrition. The U.S. Government provides $16 million annually for PMTCT, and UNICEF contributes $6 million with some of the funds allocated for IYCF activities. USAID has been a major funder of IYCF activities since the early 1990s with support for lactation management and IYCF training, breastfeeding assessments, qualitative studies, community-based growth promotion, and development and printing of materials on IYCF.

4. Discussion

4.1 Factors contributing to results

The mixed results make it difficult to link interventions with results. Exclusive breastfeeding for young infants is an accepted practice in Uganda. The MOH recommended exclusive breastfeeding for 6 months long before WHO and UNICEF changed the recommendation from 4-6 months to 6 months. However, some advocated for a shortened duration of exclusive breastfeeding for HIV-exposed infants. Uganda can be commended for maintaining high levels of exclusive breastfeeding during a time of uncertainty and changing recommendations. The integration of breastfeeding messages into a variety of health programs as well as occasional media campaigns helped keep messages on good practices before the public. The National Regulations on marketing of breastmilk substitutes, the elimination of free infant formula at PMTCT sites, and the unaffordability of infant formula for the vast majority of women helped keep the use of infant formula fairly low.

BFHI is unlikely to have had a major effect on breastfeeding practices in Uganda. The majority of women do not deliver in health facilities, and few facilities are baby friendly. However, almost all women come in contact with health providers during antenatal care. BFHI created awareness among a critical population and focused attention on concrete actions. The training provided to thousands of health providers ensured that they were aware of the scientific evidence for the recommended practices.

In 1995 half of mothers initiated breastfeeding within the first hour. Since early initiation of breastfeeding was widely practiced, it should have been easier to increase this practice than to introduce a new one. The reason for the decline in early initiation of breastfeeding is not evident. The reason for the increase in timely complementary feeding may be a result of several projects focusing specifically on this issue and the heightened attention to complementary feeding, partly as a result of discussions on the identification of appropriate replacement foods.

For many years UNICEF and many of the NGOs have concentrated on treatment of malnourished children. This is due in part to the selection of conflict-affected areas as focus districts and an emphasis on vulnerable children. Greater improvements in IYCF practices at the national level might have been achieved if more attention and resources had been given to preventive care and community-based interventions.

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[14] The Government of Uganda allocates 9 percent of the national budget to the health sector, which is considerably below the Abuja Declaration's commitment to a 15 percent allocation. Current spending on health by both the public and private sectors is $18 per capita, which is very low compared with many sub-Saharan countries.

4.2 Lessons learned

- *Money moves the agenda*. The IYCF agenda limped along until there was an infusion of PMTCT funds. IYCF advocates used these funds to raise the profile of breastfeeding and direct resources for the development of policies, training curricula, and IEC materials. They skillfully expanded the focus from the HIV context to normal circumstances as well as emergency settings. Nevertheless, because of the source of funding, infant feeding continues to be linked in many people's minds to HIV.
- *Continuous, effective leadership also moves the agenda*. Several key IYCF advocates in the MOH remained in their post for years, including the head of the nutrition unit, the IYCF focal person, the PMTCT coordinator, and the HIV program officer. Although changes occurred among development partners, the leadership in the MOH remained constant and committed.
- *Multiple partners facilitate scale up, cost sharing, and harmonization of messages***.** One of the achievements in Uganda is the mobilization of development partners to support IYCF and the integration of IYCF in other programs such as IMCI. Engaging the partners on task forces that were responsible for developing policies and tools focused their work and helped create ownership.
- *Scaling up requires establishing an enabling environment.* As stated in UNICEF's Mid-Term Review of the 2006-2010 Country Program, "Accelerating child survival and development in Uganda takes more than scaling up programmatic interventions. It requires an enabling environment that includes the macro-level legal and policy framework, appropriate budgetary allocations as well as accountability and transparency on the side of the decision-makers and duty bearers." This applies to IYCF as well.
- *Sustainability depends on institutional ownership and ongoing funding.* The involvement by and adoption of strategies, approaches, tools, curricula, and innovations by the government and development partners will help ensure sustainability. Projects, initiatives, and champions come and go. Unless the best practices are mainstreamed into an institution, they are unlikely to stand the test of time.

5. Recommendations

The recently completed *Uganda Policy Guidelines on Infant and Young Child Feeding* includes an extensive list of recommended actions for various actors—government ministries, health care providers, hospitals and health facilities, training institutions, NGOs, the private sector, media, and development partners. Rather than repeat what is in that document, the recommendations provided here highlight a few actions that can advance IYCF in Uganda. These recommendations emerge from the document review, key informant interviews, and stakeholder meeting at the end of the country visit.

Program Coordination

The task forces that have been created from time to time to address issues such as maternity protection, the marketing of breastmilk substitutes, and feeding protocols have produced quality documents, but a mechanism is needed for ongoing coordination of IYCF activities among the various government agencies and development partners. Insufficient human and financial resources at the national and district levels hinder program coordination and implementation. A priority action should be adequate staffing of the Nutrition Unit and the designation of IYCF focal points at the national and district levels.

Advocacy

Advocacy is needed at several levels to:

- Convince complacent policy makers and program planners that improvements in infant feeding practices can be made and should be made to reduce morbidity and mortality
- Persuade government officials to approve and enact the revised national regulations on a code of marketing of breastmilk substitutes and enact an effective mechanism for monitoring and enforcement

- Urge district-level decision makers to include IYCF activities such as training and the production and dissemination of IYCF materials in their annual budgets
- Raise the profile of cost-effective preventive interventions such as exclusive breastfeeding among those who are oriented to curative treatment
- Achieve clarity and consensus on HIV and infant feeding among public health specialists, academicians, and practitioners
- Raise awareness among government workers that nutrition is their responsibility and not just the responsibility of international NGOs
- Educate health providers on IYCF-related policies and their role and responsibilities in implementation
- Educate women on their rights to maternity protection and encourage employers to provide their employees with time, space, and support for breastfeeding

The launch of the new IYCF policy guidelines in 2009 provides an opportunity for advocacy among these different groups.

Strategic planning

The policy guidelines need to be translated into a plan of action with timelines, lines of responsibility, and a budget. Too often a long time has been spent developing and fine-tuning documents and tools but not enough effort has gone into their dissemination or orientation in their use. One key informant said that IYCF activities have often been *ad hoc* rather than part of a strategic plan or a clear nutrition agenda with individuals "wedded" to particular activities. The strategic planning exercise should take a fresh look at programming opportunities and assess various activities for their reach, cost-effectiveness (both short term and long term), and sustainability. The new IYCF policy guidelines provide a good framework for the planning exercise.

Communication

As part of the strategic plan, one of the goals should be to ensure that all women have equitable access to accurate and useful information. Literacy and media access should be considered when segmenting different audiences. World Breastfeeding Week should not be a stand alone activity but fit within a comprehensive communication plan. More attention needs to be given to communicating messages focused on specific problems such as prelacteal and mixed feeding along with feasible solutions. Clear, credible, and consistent messages on HIV and infant feeding are still not reaching a large number of health providers, health professionals, and mothers. The action plan should outline strategies to reach these different audiences and ensure harmonization of the messages delivered via different channels.

Capacity building

Various assessments indicate the need to improve the counseling skills of health providers and community health workers and their ability to negotiate with mothers to try improved practices. In developing the action plan, post-training assessments and mechanisms for follow-up mentoring should be considered. The MOH would like to place a nutritionist in each district. Including training in IYCF and mentoring as part of this person's duties would help facilitate roll out of the integrated IYCF course.

BFHI

BFHI educates and motivates health providers to improve services and provide breastfeeding support for mothers. As noted earlier, only a fraction of maternity facilities in Uganda are certified as baby-friendly, and the majority of women deliver at home. This will need to be considered in determining the resources and effort devoted to BFHI. The addition by the MOH of five new steps to BFHI in the past few years has resulted in different steps in various documents and IEC materials. The value added by these new steps should be examined. All maternities, regardless of BFHI status, should be expected to support early and exclusive breastfeeding to improve neonatal survival, to implement the key steps of the Ten Steps to Successful Breastfeeding, such as rooming in, feeding on demand, no pre-lacteal or other liquids or foods, etc and to

ensure staff are trained on lactation management/breastfeeding counseling. Consideration should also be given to integrating BFHI into existing certification programs, such as the Yellow Star program in Uganda. This program aims to improve the quality of health services through a system of supervision, certification, and reward. The new BFHI monitoring tool is a resource that should soon be available from WHO.

Beyond health facilities

With the majority of deliveries taking place in the home, a strategy is needed to reach this population. The reproductive health, neonatal health, child survival, and nutrition communities should join forces to equip community resource persons to support good delivery, feeding, and care practices during childbirth and the postpartum period to improve the rate of early breastfeeding initiation. Breastfeeding support, promotion and problem solving is also needed beyond the post partum period to increase the rates of exclusive breastfeeding up to six months, utilizing MCH contacts with high coverage such as immunization as well as community based approaches.

Community-based promotion

Uganda would benefit by learning from its own experience and the experience of other countries in community-based breastfeeding promotion before undertaking a major program to scale up community-based activities. Support groups, home visits by peer counselors, meetings of women's clubs, group counseling activities, credit with education programs, and engagement of respected community members such as traditional birth attendants are among the approaches that have been tried. Bringing together people in Uganda that have been involved in community-based breastfeeding programs and inviting resource people from other countries with experience in such programs as mother2mother mentoring in South Africa could be a first step. This would also be an occasion to discuss incentives and the involvement of Village Health Teams in breastfeeding promotion.

Monitoring

The IYCF targets and the HIV and infant feeding indicators for PMTCT need to be reassessed. The goal set in the Health Sector Strategic Plan for 2005-2010 is to increase exclusive breastfeeding from 70 percent to 80 percent, although there was never a baseline of 70 percent. The target of the Child Survival Strategy is to achieve 66 percent exclusive breastfeeding by 2010. In focus districts, UNICEF has set as its target an exclusive breastfeeding rate of 60 percent which is the current national rate. Current PMTCT indicators track a woman's feeding choices after antenatal counseling but not after delivery.

Knowledge management

As part of this review, an attempt was made to collect information on the number of IYCF courses offered, the number of individuals trained, and the types and numbers of IEC materials developed. Lack of ready access to this information hinders strategic planning and can result in duplication of efforts. A system should be developed for tracking IYCF activities, trainings, and materials.

UNICEF's Role

UNICEF Uganda aims to:

- Remove bottlenecks through advocacy
- Influence positive changes in policies, budgets, and attitudes
- Support direct service intervention through emergency response, capacity building, and PMTCT services in antenatal care centers
- Create demand for rights and life-saving interventions through communication for social and behavior change

This statement applies to IYCF as well as UNICEF's broader program. The *Uganda Policy Guidelines on Infant and Young Child Feeding* recognize the role UNICEF can play in advocacy for IYCF, mobilization of resources, and technical support, particularly for staff training and development of IYCF tools. For example,

UNICEF can use its convening power to bring the responsible parties together to push forward the revised National Regulations on marketing of breastmilk substitutes. The Mid-Term Review of UNICEF's 2006-2010 Program recommends accelerating the roll out of a large-scale community-based nutrition program, focusing on the promotion of early and exclusive breastfeeding and timely initiation of complementary feeding through capacity building at community, district, and national levels.

UNICEF is looked to by others for a mandate. For many years UNICEF focused on therapeutic feeding and curative treatment as Uganda experienced civil conflict and emergency situations. As peace returns to affected areas, the new IYCF policy guidelines and the Accelerated Strategy for Child Survival and Development Strategy provide UNICEF with the opportunity to give heightened attention to prevention and breastfeeding promotion and to support innovations to address barriers to good feeding practices.

Annexes:

1. Materials reviewed
2. Key informants
3. Policy statements on infant and young child feeding
4. Infant and young child feeding summary matrix
5. IYCF materials and job aids

Annex 1. Documents reviewed

Demographic and Health Surveys:

Uganda Bureau of Statistics (UBOS) and Macro International Inc. 2007. *Uganda Demographic and Health Survey 2006.* Calverton, Maryland, USA: UBOS and Macro International Inc.

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Government of Uganda- UNICEF Mid-Term Review: Programme Delivery Structure and Proposed Indicative Budget 2008/2010.

Annex 2. Key informants

Ministry of Health

Dr. Saul Onyango
HIV/AIDS Specialist
(consultant, previously head of national PMTCT program)

* Jessica Nsungwi
Principal Medical Officer in Charge of IMCI, Child Health

Ursula Wangwe
Former Head of Nutrition Section (recently retired)

Namokose Samalie Bananuka
Nutritionist
AIDS Control

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Makerere University

NGOs

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IBFAN Uganda

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Training Officer
PREFA (Protecting Families against AIDS)

Justine Kyamulab (telephone interview)
Clinical Officer
Uganda Lactation Management Education Team

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Nutrition Specialist

*Brenda Kaijuka
Nutrition Specialist

Richard Oketch
HIV/AIDS Specialist (Treatment)

Janex Kabarangira
Health Specialist Sexual and Reproductive Health

*John Musinguzi
Nutrition Consultant

USAID-funded Projects

Robert Mwadime
Regional Senior Nutrition and HIV/AIDS Advisor
Food and Nutrition Technical Assistance (FANTA) Project

*Rianne Stevens-Muyeti
Nutritionist
FANTA

Peggy Koniz-Booher
Chief of Party
NuLife Food and Nutrition Interventions for Uganda

Margaret Kyenkya-Isabirye (by phone)
Deputy Director, NuLife

World Food Program

*Barbara Tembo
Program Officer
Head of Nutrition Sub-Unit
World Food Program
(IYCF focal point in MOH Nutrition Section from around 1999 to July 2007)

Other

*Louise Sserunjogi
Monitoring Officer Uganda
Global Alliance for Improved Nutrition

***** Indicates attended the Stakeholder Meeting on Nov. 3. Those who attended but were not interviewed individually include Dr. Elizabeth Madraa, formerly program manager for AIDS Control Program, now head of Nutrition Section and Margaret Kabahgnda, Dept. of Food Science and Technology, Makerere University

Annex 3. Policy Statements on Infant and Young Child Feeding

A. Feeding the Infant/Young Child under "Normal"circumstances

Policy statement 1

All HIV negative mothers and those of unknown HIV status shall be counseled and supported to exclusively breastfeed their infants for the first six months of the infant's life.

Policy statement 2

Parents shall be counseled and supported to introduce adequate, safe and appropriately fed complementary foods at six months of the infant's age while they continue breastfeeding for up to 2 years or beyond.

Policy statement 3

Pregnant women and lactating mothers shall be appropriately cared for and encouraged to consume adequate quantities of nutritious foods.

B. Feeding the Infant/Young Child Who is Exposed to HIV

Policy statement 4

4a) Health service providers shall establish the HIV status of all pregnant women and lactating mothers.

4b) All pregnant women and lactating mothers shall be encouraged to confidentially share their HIV status with service providers and key family members in order to get appropriate IYCF services.

Policy statement 5

Exclusive breastfeeding shall be recommended for infants of HIV infected women for the first six months of the infant's life, irrespective of the infant's HIV status, unless replacement feeding is acceptable, feasible, affordable, sustainable and safe (AFASS) for them and their infants before that time.

Implementation of this policy requires the following actions:

• HIV-infected pregnant women and lactating mothers should be counseled on the infant feeding options available to them. There is a need to scale up and strengthen quality infant feeding counseling, support, and follow up services of HIV infected mothers nationwide.

• The counseling should:

Be done by IYCF counselors who have undergone the MOH approved "Integrated Infant and Young Child Feeding Counseling Training Course" (2006).

Make use of the MOH approved IYCF counseling tools/job aides.

Take into account the MOH recommended feeding options.

• The MOH recommended feeding options for infants exposed to HIV are as follows:

1 **Exclusive breastfeeding for six months** followed by timely, adequate and safe complementary feeding.

2 If AFASS, exclusive replacement feeding for the first 6 months followed by timely, adequate and safe complementary feeding and continued replacement feeding, using:

Infant formula

Animal milk

Caution: *Inappropriate use of replacement feeds is associated with high rates of illness and death, especially among infants 0-6 months of age. Until a standardized and nutritionally adequate fresh animal milk product becomes available, parents should be cautioned on the difficulties with accessing and feeding undiluted cows' milk.*

- Health service providers should support HIV infected mothers to initiate their chosen feeding option upon delivery.
- It is essential to emphasize to HIV positive women that whether choosing breastfeeding or replacement feeding (RF), infant feeding must be exclusive for the first six months with NO mixed feeding.
- Where mothers opt for replacement feeding, the marketing, procurement and distribution of breastmilk substitutes must comply with the Food Safety (Marketing of Infant and Young Child Foods) Regulations of 2005.
- All HIV positive mothers who opt for RF should be educated and counseled to feed their infants using open cups and not feeding bottles with teats or cups with spouts.
- If a mother starts on RF, but this option no longer meets the AFASS criteria before the 6 months mark, she should be counseled and supported to either make it AFASS again or to re-lactate but avoid mixed feeding.
- Where replacement feeding is not AFASS, even at 6 months, the mother should be counseled and supported to:

Continue breastfeeding, for up to 2 years, with complementary feeding, or

Improve replacement feeding to become AFASS. This will require strict follow up and assessment of mother and baby, and may require extra support outside of existing health services.

- All breastfeeding should stop after 6 months, once a nutritionally adequate and safe diet without breastfeeding can be provided.
- Whatever the feeding decisions, health services and palliative care support should follow up all HIV exposed infants and continue to offer infant feeding counseling and support to caregivers.
- If an HIV exposed child falls sick, regardless of the mode of feeding, s/he should be fed even more frequently than usual in order to meet that child's nutritional requirements. If the child is HIV infected s/he needs an additional 10% increase in food if asymptomatic, a 20-30% increase in food if symptomatic, and a 50-100% increase if losing weight.
- Counseling, support and follow up services must also be provided to the parents upon introducing complementary foods from 6 months of age.
- Children on animal milk as a replacement feed should receive micronutrient supplements: give ¼ tablet (50mg) of iron and ¼ tablet (0.5mg) of folic acid daily.
- Parents/caretakers should be counselled on the potential drug-food interactions for children on ART and the management of dietary related symptoms such as diarrhea, vomiting, mouth sores, and oral thrush.

Policy statement 6

Infants born to mothers living with HIV shall be tested for HIV infection at 10 weeks of age.

C. Feeding the Infant/Young Child in Other Exceptionally Difficult Circumstances

Policy Statement 7

Malnourished children shall be provided with appropriate medical care, nutritional rehabilitation and follow up.

Policy Statement 8

Mothers of infants who are born with low birth weight but can suckle shall be encouraged to breastfeed, unless there is a medical contra-indication.
Mothers of low birth weight infants who cannot suckle well shall be encouraged and assisted to express breast milk and give it by cup.

Policy Statement 9

Mothers, caretakers, and families shall be counseled and supported to practice optimal IYCF in emergencies and other exceptionally difficult/special circumstances.

Source: MOH. *Uganda Policy Guidelines on Infant and Young Child Feeding*. 2008.

Annex 4. Summary Matrix of Infant and Young Child Feeding in PMTCT Programs

Component	Strengths	Weaknesses/Challenges	Opportunities	Threats	Recommendations
Counseling on Infant and Young Child Feeding	Training and counseling materials A pool of trainers for pre- and in-service training at national and a few at district levels Policy guidelines in place Existence of IYCF coordinator Subcommittee on nutrition and a Task force on IYCF	Inadequate human resources to counsel mothers Inadequate coordination and management of IYCF at all levels Inappropriate placement of health workers not based on skills and training within and out of health facilities Inadequate funding for the Health Sector Inadequate counseling and follow up support for mothers Inadequate community and male involvement and participation in infant feeding related activities	A few health workers have been trained Partner support available Integration of IYCF into existing programs and services Existence of volunteer health teams and other community structures HIV/PMTCT resource availability Urbanization (rural urban shift) of the population	Socio-economic factors HIV/AIDS incidence Increasing Low rate of exclusive breastfeeding (60% coverage) Non existence of follow up system for HIV exposed infants Aggressive marketing of commercial infant formula by the infant food manufacturers	Need to scale up to Health Center II and community through outreach approaches Strengthen counseling and support services for IYCF Provide space for counseling and demonstration of the feeding options in health facilities Strengthen mentoring, support supervision and follow up to the health care providers Recruitment and retention of nutritionists and nutritional assistants in the health system Ensure that IYCF activities are included in the district plans and funds allocated for the activities Design a tracking system for the infant exposed to HIV Provide a comprehensive package on infant feeding for postnatal mothers
Component	**Strengths**	**Weaknesses/Challenges**	**Opportunities**	**Threats**	**Recommendations**
Replacement feeding	Govt policy to support replacement feeding	Policy on IYCF not yet Disseminated at all levels of	Partners interested	Socio-economic factors	Strengthen support services for this option through training,

options	Regulations on marketing of breast milk substitutes in place Availability of replacement feeds including animal milk on the market.	service delivery Inadequate human resource Knowledge and skills gap on replacement feeding option Weak monitoring of the Regulations Inadequate co-ordination among key players A few trained infant feeding counselors to support mothers on this option		Stigma and discrimination AFASS not applicable to majority of mothers Illness and death of infants due to inappropriate use of replacement foods Contaminated replacement feeds in the market	mentoring, support supervision of service providers Modification of animal milk into a ready-to-use milk Implement and enforce the Regulations on marketing of breastmilk substitutes Strengthen follow up activities for the mother-baby pair Conduct operational research
Maternal Nutrition	Sub Committee on Nutrition and a Task Force on maternal nutrition. A basic package on maternal nutrition integrated in the PMTCT training package Nutritionist at national level	Inadequate co-ordination No maternal nutrition policy guidelines in place. Inadequate funds Inadequate IEC on maternal nutrition	Partners interested	Socio-economic factors Large families Natural disasters Civil conflicts	Develop policy guidelines on maternal Nutrition Provision of food and other support for HIV infected women identified through the services Develop job aids and IEC materials

Source: Inter-Agency Task Team on HIV Prevention among Pregnant Women, Mothers, and Their Children. Joint Review of the Prevention of Mother to Child Transmission of HIV and Paediatric AIDS Care Programmes. Situation Analysis Report. October 2008.

Annex 5. IEC materials and job aids

Handbooks for Health Workers

- Facts about Breastfeeding (Nutrition Unit, MOH, November 2000)
- Promoting Child Growth and Health in Uganda: Training Handbook for Community Child Health Promoters, MOH Nutrition Section, March 2003. UNICEF, BASICS II Project, WHO, DISH, and The Nutrition and Early Childhood Development Project (CHILD) helped in the development of the handbook.
- Counseling Mothers on Infant Feeding for the Prevention of Mother-to-Child Transmission of HIV (Regional Centre for Quality of Health Care, March 2003)
- Prevention of Mother-to-Child Transmission of HIV (PMTCT) Social Mobilization Handbook. Revised Edition, February 2008
- Caring for Children in Uganda (handbook for parents of young children developed by Community and Home Initiatives for Long-term Development (CHILD) with support from UNICEF and the World Bank)
- Feeding of Infants and Young Children in the Context of HIV/AIDS (August 2006)

Question & Answer Guide

IYCF with a Special Focus on HIV/AIDS – A Reference Tool for Counsellors; Answers to questions commonly asked by mothers and their families. MOH, August 2006; update 2008.

Leaflets for mothers (The first leaflets were adapted in 2006 from materials originally developed in Tanzania with technical and financial support by the USAID-funded Quality Assurance Project. The Uganda leaflets were updated and field tested in November 2008 with technical and financial support from NuLife.

- How to Breastfeed Your Baby
- How to Hand Express Breast Milk
- How to Feed Your Baby Infant Formula
- How to Feed Your Baby Fresh Animal Milk
- How to Feed Your Baby after Six Months
- How to Feed a Sick Child
- Nutrition during Pregnancy and Lactation

Counseling cards

- IYCF: Uganda National Counseling Cards
- IYCF: Uganda National Counseling Cards for Community Health Workers
- Integrated Health Counseling Cards developed with the support of the UPHOLD Project; 16 cards of which 4 focus specifically on IYCF
- Growth Promotion Counseling Cards; 11 developed with the support of the BASICS Project
- 12 Health and Nutrition Counseling Cards for use in Karamojo region
- Management of Childhood Illness: Counsel and Follow-Up the Mother (IMCI job aid)
- Growing Up Well in Uganda (produced by Community and Home Initiatives for Long-term Development (CHILD) with support from the World Bank

Training Manuals

- Integrated Infant and Young Child Feeding Counselling: A Training Course (Facilitator's Manual and Participant's Manual)
- A Training Manual for Village Health Team (VHT)

Posters and Fact Sheets developed for World Breastfeeding Weeks

- The First Hour
- Regulation of the marketing of breastmilk substitutes