



Uganda Nutrition Bulletin

A Quarterly Nutrition Update highlighting the current nutrition situation in the country

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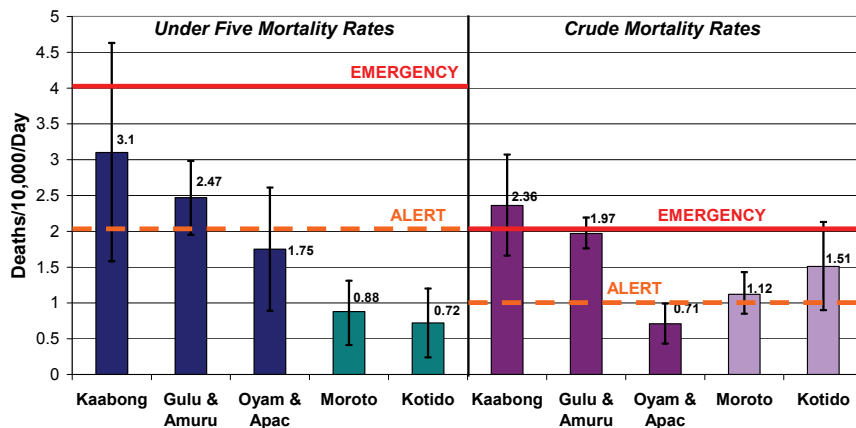
National Overview

Currently, the north-eastern Karamoja region is besieged by a food crisis that has left almost the entire population dependent on outside relief and assistance due to a prolonged dry spell. With an overall global acute malnutrition (GAM) rate in February of 10.9% in this region, the districts of **Moroto and Nakapiripirit** clearly have a critical nutrition situation with GAM rates above 15%; these are likely to increase

even further as the peak of the hunger gap approaches in July/August. These two districts with the addition of Kaabong have severe acute malnutrition (SAM) rates of 2% and higher with admissions to Therapeutic Feeding Programmes (TFPs) increasing substantially. **Crude and Under Five Mortality Rates (CMR & U5MR) above alert and emergency thresholds also highlight the gravity of the situation, particularly in Kaabong, Moroto and Kotido.** Government and humanitarian agencies are scaling up operations in response to the situation.

Displaced populations continue to stream home from IDP camps after 20 years of civil war in northern Uganda. However, the most basic of services and infrastructure in areas of return are still grossly inadequate,

Mortality Rates (with CI) from Selected Surveys in Uganda Jan-May 2008



negatively affecting this population's food security, and further impacting on the health and nutrition of these returning communities. In recent surveys, areas of the Lango sub-region that currently receive returning IDP populations have exhibited rising GAM values of up to 5.9% (Oyam/Apac District) and elevated mortality rates (Gulu/Amuru and Oyam/Apac), although the prevalence of malnutrition is within acceptable range.

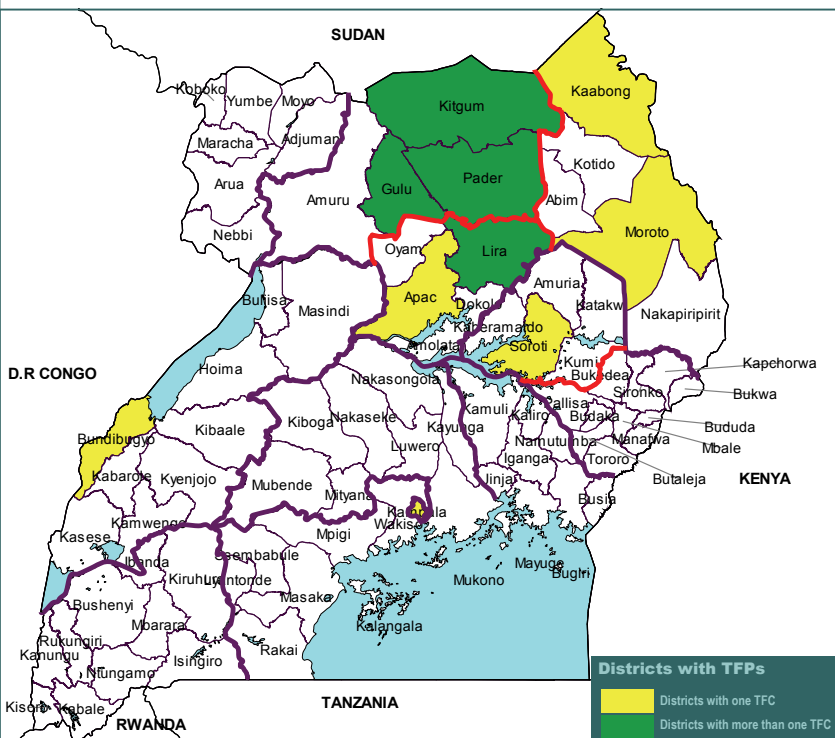
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Feeding Programmes

From October 2007 through April 2008 a total number of 4,771 children were admitted to Therapeutic Feeding Programmes (Therapeutic Feeding Centres or TFC & Outpatient Therapeutic Programmes or OTP). A further 3,799 children were admitted to Supplementary Feeding Programmes from January through March 2008 and approximately 225,000 children and pregnant and lactating women benefited from food distribution and nutrition education in the WFP-supported Mother & Child Health and Nutrition Programme (MCHN). During this time more than 3,400 severely malnourished children have recovered with treatment although an additional 354 children died.

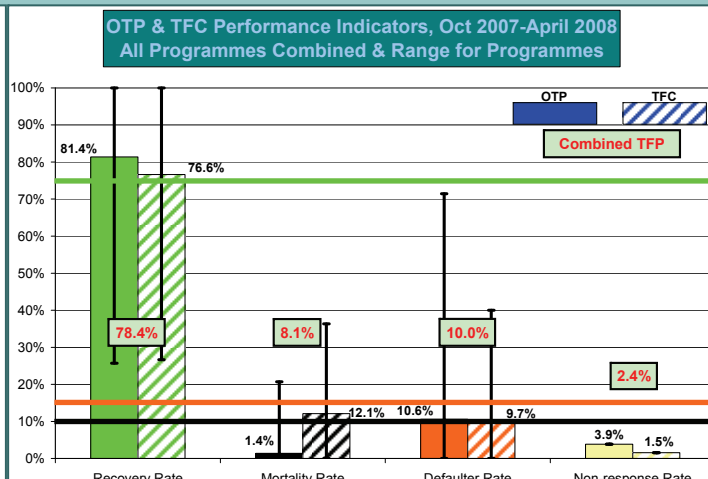
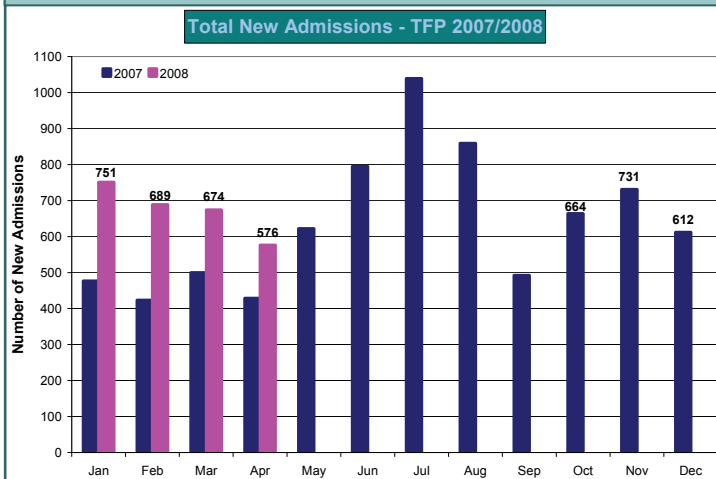
The number of new admissions to TFPs followed a generally declining trend between October 2007 and April 2008, although with highs and lows (high of 751 in January and low of 576 in April). The Acholi



Summary of Feeding Programmes, October 2007-April 2008

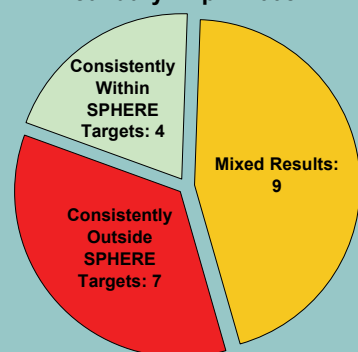
	OTP	TFC	Total TFP	SFPs*	Total
New Admissions	1,970	2,801	4,771	3,799	8,570
# Recovered	1,328	2,089	3,417	NA	
# Died	23	331	354	NA	
# Defaulted	173	264	437	NA	
# Non-response	63	42	105	NA	

* Jan-Mar 2008, World Food Programme



and Lango sub-regions represent the largest proportion of new admissions (more than 50%) due to their large concentration of TFPs. The number of new admissions from January through April is 35-50% higher than in 2007. It is expected that June through August, the typical hunger gap period, will see a further increase in admissions compared to last year given the unusual climatic conditions Uganda is facing, particularly in the Karamoja region.

Performance of TFPs compared with SPHERE Targets January - April 2008



TFPs have differed greatly in their performance during the period from October 2007 through April 2008. While the national level performance figures are positive, with OTPs performing within SPHERE standards and TFCs on the borderline, looking at individual programme performance tells another story: only 4 programmes have consistently performed within the SPHERE standards from January through April, 9 sometimes achieved SPHERE targets and 7 consistently did not achieve the targets.

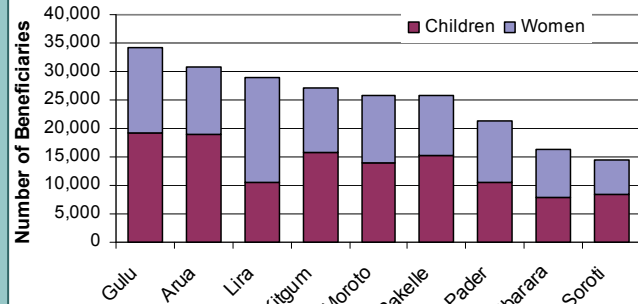
With more stringent targets set out by the Ministry of Health than those of SHPERE, efforts need to be made to understand and address the programme specific causes of poor feeding programme performance.

OTP Performance: The national rate of recovery in OTPs was 81% but the range was anything from 26-100%. Mortality rates in the OTP were very good at 1.5%, with a range up to 21%, as would be expected as children should be transferred to the TFC when there are signs of complications. Defaulter rates, at 11% nationally, had quite a large range, with up to 71% seen in some programmes. *Lira and Alito demonstrated the best performing OTPs while Kaabong OTP performed the worst.*

MCHN Beneficiaries	
Women	104,062
Pregnant	56,052
Lactating	48,010
Children	120,791
Boys	59,731
Girls	61,060
Total	224,853

TFC Performance: During the same period, the TFC recovery rate was 77%, just passing the SPHERE target but below the Uganda standard, however programmes ranged from 27-100%, evidencing the vast difference in quality between them. The mortality rate was just above SPHERE targets with 12% dying during treatment but the rate went as high as 36% in Matany Mission Hospital, with several other referral hospitals following close behind with mortality rates above 30% (Lira RH, Soroti RH, Gulu RH and Mwanamugimu). The national TFC defaulter rate was marginally lower than that of OTPs at 10%, with a much smaller but still unacceptable range up to 40%, as seen in Lira Regional Hospital. Overall, *Pajule HC and Kaabong Regional Hospital were the best performing TFCs while Lira, Soroti and Mwanamugimu Referral Hospitals performed the worst.*

MCHN Beneficiaries in Northern Uganda Jan-Mar 2008



This data demonstrate that TFP performance and quality in Uganda is quite variable and requires strengthening. Some of the causes of poor performance include:

- Lack of active case finding and screening at community level – this means that children arrive late at health facilities.
- Lack of adequate follow-up of defaulters and absentees – improvement in performance has been observed in Kaabong OTP by MSF-Spain after initiating more active case finding and follow-up of defaulters.
- Inappropriate management of medical complications – this is a major cause of mortality influenced by a lack of sufficient staff and adequate supplies. The main complications include: septicemia, bronchial pneumonia and HIV/AIDS. Prevalence of HIV/AIDS within certain nutrition units is estimated at 30-50%.

Often the poorest performance was seen in the larger district, regional or national hospitals as these tend to bare the burden of more complicated cases. Lower level facilities often refer these patients to hospitals that have more specialised care, equipment and supplies including blood. A capacity building project with training and support supervision is being carried out to improve the quality of all TFCs, implemented by Mwanamugimu Nutrition Unit and supported by UNICEF.

SPHERE Standards
 Recovery Rate ≥ 75%
 Mortality Rate ≤ 10%
 Defaulter Rate ≤ 15%

UGANDA Standards
 Recovery Rate ≥ 80%
 Mortality Rate ≤ 10%
 Defaulter Rate ≤ 15%

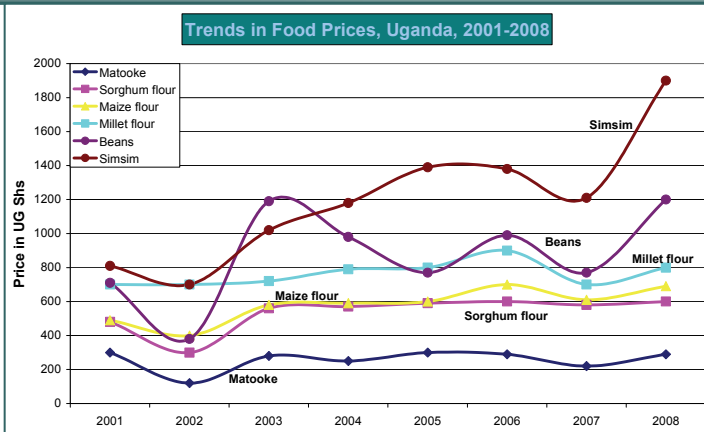
RISING FOOD PRICES

The sharp increase in global food prices has raised serious concerns about the food security and nutritional status of the most vulnerable people in developing countries, including Uganda.

According to Uganda Bureau of Statistics (UBOS), the inflation rate has increased from 7.5% in February to 8.1% in March 2008. Over the same period, food prices have increased by 2.3%. Continuously increasing food prices are likely to force many poor households to restrict their food consumption and opt for less nutritious diets with far-reaching effects on health.

A snapshot of price trends (FEWS/NET, 2008) indicates that, without doubt, prices have gradually increased since 2001, though inconsistently. Significant price increases were most notable in March 2007 and March 2008, differing by commodity with protein sources being the worst affected.

Uganda is by and large food secure with the exception of the conflict-affected districts in Acholi, Lango and Teso sub-regions and areas of chronic insecurity such as the Karamoja region. Though not a net food importer itself, Uganda is surrounded by countries which often import food from Uganda's more competitive market, due to short transportation distances. The International Food Policy Research Institute carried out a study for UN agencies (WFP, UNICEF, and FAO) in June 2008 to assess the likely impact of rising world food prices on the welfare and food security of Ugandan households. It found no evidence to support a strong call to action by government and its interna-

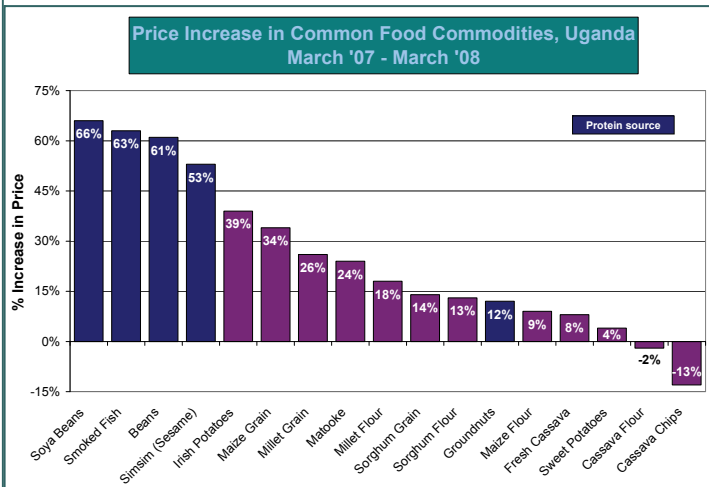


tional relief partners to enhance the access to food for Ugandan households outside the current areas of concern in Karamoja and the IDP and resettling populations in northern Uganda. Nevertheless, the study did not exclude the possibility of substantial adverse effects on Ugandan households arising from increased regional demand for Uganda's food crops as a side effect of the impact of the global rise in food prices on Uganda's neighbours.

The IFPRI study recommended the continued monitoring of the food and nutrition security of vulnerable households with possible expansion to include surveillance of households particularly market-dependent for their access to food. Thus, priority should be given to nutrition surveillance and early warning systems, especially given the likelihood that households will employ adverse coping strategies in the face of rising food prices.

To ensure that the rights of all children and women are protected from the adverse consequences of rising food prices, UNICEF has recently proposed four main global strategies for action, prioritizing the most vulnerable:

1. Strengthen the evidence-base for decision-making on appropriate policy and programme interventions,
2. Advocate for the protection of children from the adverse effects of rising food prices,
3. Support and scale-up of national programmes on nutrition and associated health interventions,
4. Strengthen access to water, sanitation and hygiene and education.



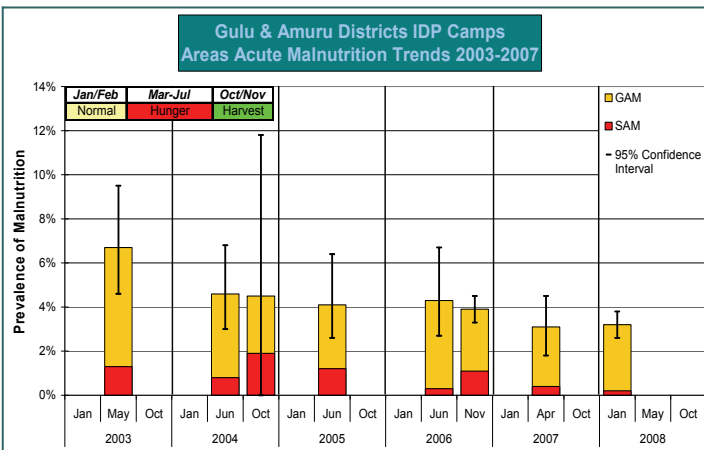
NORTHERN REGION

Acholi Sub-Region

Nutrition Assessments:

IDP Camps in Gulu & Amuru Districts, February 2008, MUK

Nutrition: The overall nutrition status of children 6-59 months in 53 IDP camps was 3.2% GAM and 0.2% SAM, similar to that found in April 2007. Odek IDP camp recorded the highest GAM at 8.1% followed by Awoo at 6.8% whilst Alero IDP camp recorded the highest SAM at 2.2%. As the survey was carried out in January, a normal time of year for food availability, it is expected that the prevalence of malnutrition will increase during the hunger gap from March to August. Although only 5.1% of women were malnourished (0.5% severely and 4.5% mildly), more than double (12.5%) were found to be obese or overweight (2.4% obese and 10.1% overweight), emphasizing the double burden of nutrition in Uganda. **Mortality:** The Crude Mortality



Rate (CMR) was 1.97/10,000/day while under-five retrospective mortality was 2.48/10,000 /day. Both are above the emergency

thresholds for SPHERE Standards and indicate a large increase from the previous survey in April 2007 with 0.3/10,000/day. **Water/Sanitation:** Access to water for consumption was found to be within acceptable range, related to the continuous humanitarian interventions by NGOs and other agencies', however, water usage was lower than recommended by SPHERE at 12.2 litres per person per day (from both protected and unprotected sources). While most had access to either a family or community latrine, 11.2% of the population still openly defecate. This situation remains similar to that found in April 2007. **IYCF:** The practice of exclusive breastfeeding among the study population was generally low with 70% of mothers stopping before the recommended six months. **Conclusion:** The nutrition situation in Gulu and Amuru IDP camps is stable and consistently below 5% GAM since 2004 although the high mortality figures are concerning and require further understanding and attention to the causes. Close monitoring of the situation including active case finding, screening and referral of malnourished children is essential as the population returns to areas with less access to essential services. Interventions need to address the provision of adequate basic services and strengthen preventive strategies particularly to reduce mortality through nutrition and health activities at community level.

SPHERE Standards

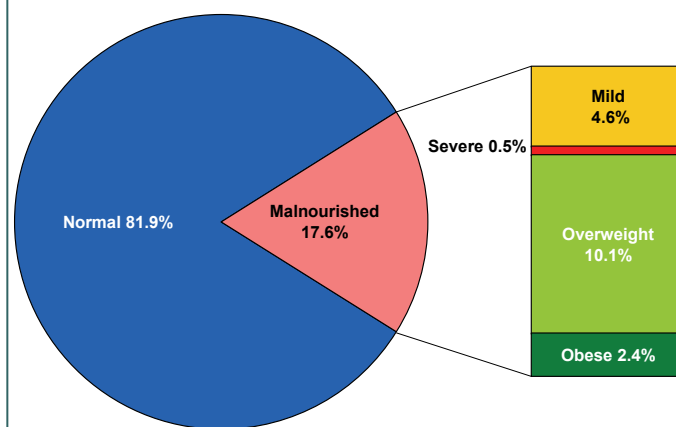
Crude Mortality Rate (CMR)

Alert <1.0/10,000/day
Emergency <2.0/10,000/day

Under 5 Mortality Rate (U5MR)

Alert <2.0/10,000/day
Emergency <4.0/10,000/day

Malnutrition in Women, Gulu & Amuru, Feb 2008



Summary of Nutrition assessments in Acholi Sub-Region

	February 2008
	53 IDP Camps Gulu & Amuru Districts
	Makerere University
Number of households assessed	2,726
Under fives (6-59 months) assessed/included in the analysis	3,588
Sampling	Systematic random
Reference data used & reported	NCHS
Global Acute Malnutrition (WHZ <-2 or oedema) & 95% CI	3.2% (2.6-3.8)
Severe acute malnutrition (WHZ <-3 or oedema) & 95% CI	0.2% (0.1-0.4)
Presence of Oedema	0.0%
Crude Mortality Rate as deaths/10,000/day & 95% CI	1.97 (1.76-2.19)
Under Five Mortality Rate as deaths/10,000/day & 95% CI	2.47 (1.95-2.98)
Major cause of U5MR	Malaria
Malnourished by MUAC (<125cm) for children >75cm	1.7%
At risk by MUAC for children >75cm (>125cm and <135cm)	7.6% (6.2-8.4)
Children (9-59 months) immunized against measles (total)	95.4%
Children supplemented with Vitamin A (last 6 months)	93.7%

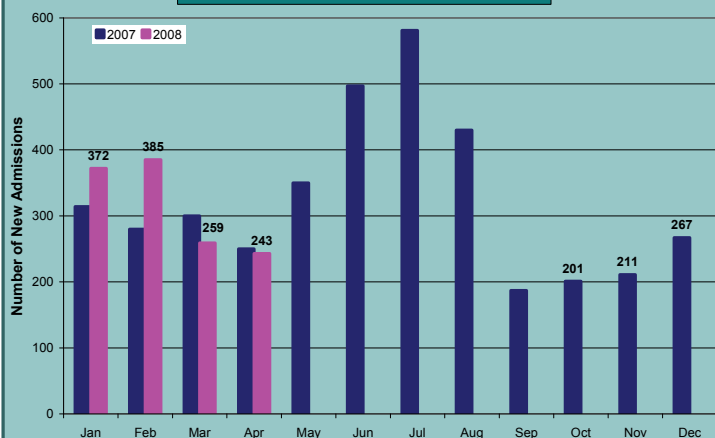
Feeding Programmes:

The number of admissions to TFPs in the Acholi sub-region (2 TFCs and 4 OTPs) continued to follow seasonal trends of food availability, similar to 2007, with high peaks in admissions around the January and February hunger period followed by a drop in March and April. It is expected that June and July will show large increases in admissions, likely greater than the pattern in 2007 due to the delayed rains this year. 1,938 children were admitted into TFPs in the Acholi sub-region during the October 2007 and April 2008 period.

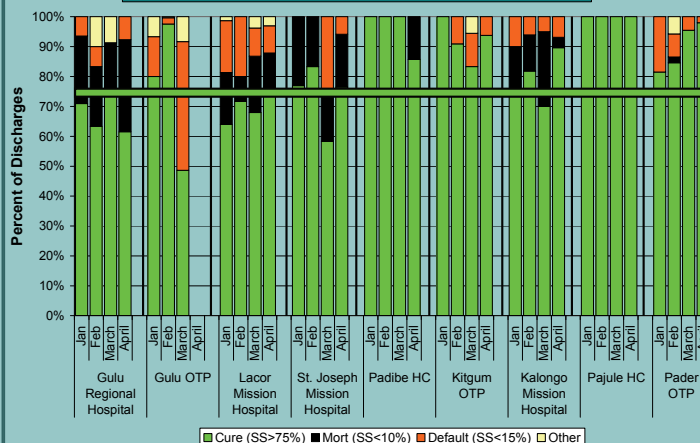
Cure rates in Acholi ranged between 48% and 100%, with a me-

dian of 83% while mortality rates ranged from 0% to 30%. Of greatest concern are Lacor, Gulu and St. Joseph Hospitals which were consistently outside of SPHERE target recovery and mortality rates from January through April 2008. This could be partly be attributed to the phase out of support from ACF in Gulu Hospital and OTPs as well as the lack of commitment and involvement of staff as well as the late arrival of children already with severe complications at health facilities. Positively, four programmes in Acholi consistently performed within SPHERE targets, mostly OTPs: Gulu, Kitgum and Pader OTPs as well as Pajule HC.

Acholi New Admissions - TFP 2007/2008



Acholi TFP Performance Indicators, Jan-April 2008



Lango Sub-Region

Nutrition Assessments:

Preliminary Findings, Oyam & Apac Districts, April/May 2008, ACF
Nutrition: Results revealed an increase in GAM to 5.9 from 4.6 in 2007 with a reduction in SAM from 0.9% to 0.3% (both non-significant changes). **Mortality:** Crude mortality was found to be 0.71/10,000/day while under-five mortality was 1.75/10,000/day – a rate approaching the SPHERE Alert level. Full details will be available soon from ACF and subsequently published in the next bulletin.

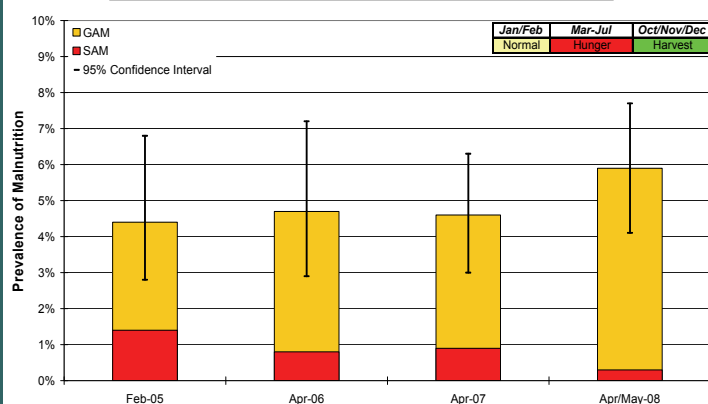
Preliminary Findings, Lira District, April/May 2008, ACF

Nutrition: The study revealed GAM of 4.2% and SAM of less than 0.1%, indicating an improvement in nutrition from the previous survey. **Mortality:** Crude mortality was 0.54/10,000/day and under-five mortality was 1.06/10,000/day. Full details will be

available soon from ACF and subsequently published in the next bulletin.

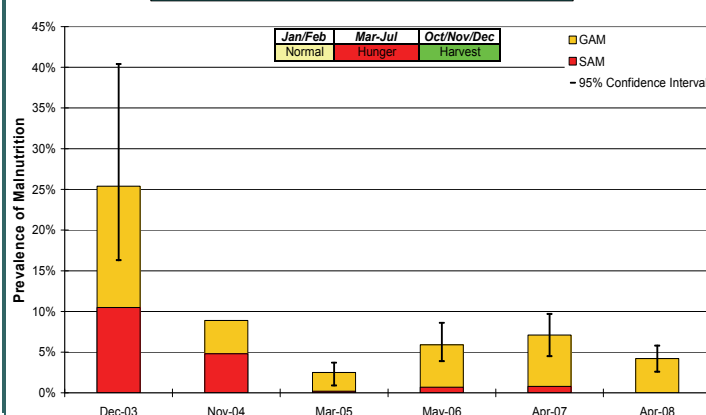
General Conclusions for the Lango Sub-region: The above results must be viewed against the background of the IDP return process. With the absence of basic services and infrastructure in the return areas, the health and nutrition of children was likely compromised, as reflected in the increase in GAM rates in Oyam, the relatively high under-five mortality rate and the sub-optimal measles immunization coverage. This calls for an increase in screening and treatment of malnourished children at the community level as well as improving access to all services, i.e. community nutrition, health, water and sanitation, etc.

Apac & Oyam District* Acute Malnutrition Trends 2005-2008



*Survey populations varied between surveys as follows: 2005 & 2006 included only IDP camps, 2007 included IDP camps and resettlement areas, and the 2008 survey was district-wide.

Lira District* Acute Malnutrition Trends 2003-2008



*Survey populations varied between surveys as follows: 2003-2006 included only IDP camps, 2007 included IDP camps and resettlement areas, and the 2008 survey was district-wide.

Summary of Nutrition assessments in Lango sub-region

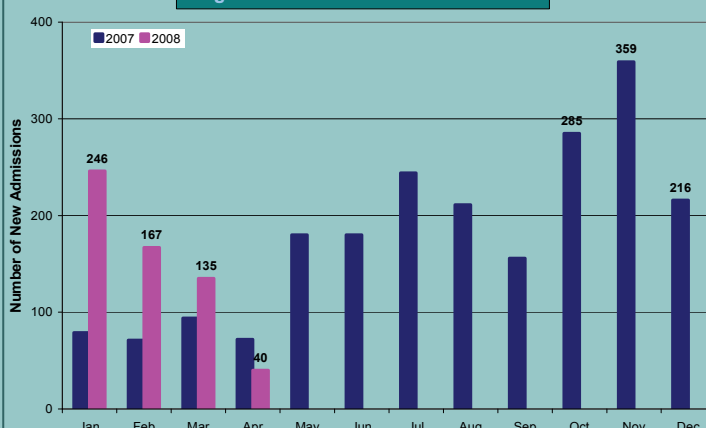
	April/May 2008	April/May 2008
	Oyam and Apac Districts	Lira District
	ACF	ACF
Under fives (6-59 months) assessed/included in the analysis	833	833
Sampling	Two-stage cluster	Two-stage cluster
Reference data used & reported (* used in this table)	NCHS* & WHO	NCHS* & WHO
Global Acute Malnutrition (WHZ <-2 or oedema) & 95% CI	5.9% [4.1 – 7.7]	4.2% [2.6 – 5.8]
Severe acute malnutrition (WHZ <-3 or oedema) & 95% CI	0.3% [0.0 – 0.7]	0% [0.0 – 0.0]
Crude Mortality Rate as deaths/10,000/day & 95% CI	0.71 [0.43 – 0.99]	0.54 [0.27 – 0.82]
Under Five Mortality Rate as deaths/10,000/day & 95% CI	1.75 [0.89 – 2.61]	1.06 [0.39 – 1.73]
Malnourished by MUAC (<12.0cm) for children >65cm	5.7%	4.2%
Children (9-59 mths) immunized against measles (by card or recall)	83.6%	84.7%

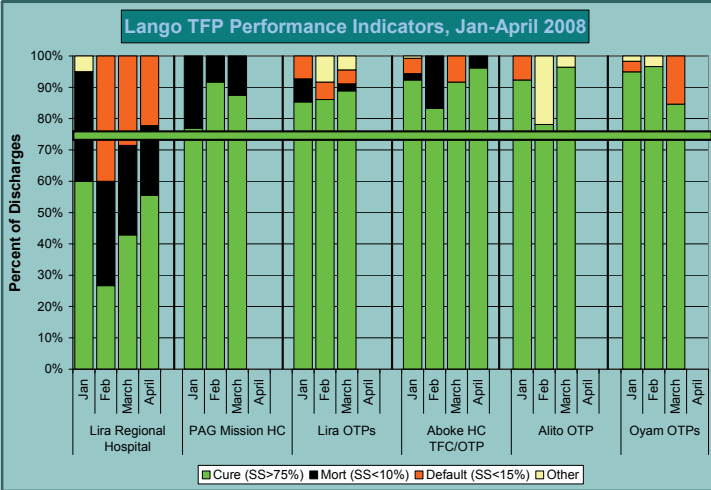
Feeding Programmes:

A total of 1,448 children were admitted to TFPs in the Lango sub-region (3 TFCs and 5 OTPs) from October 2007 through April 2008. New admissions peaked in November with approximately 360 children entering the programmes before starting a steady decline through to April. Monthly admissions from January through March were higher this year than in 2007; this is likely the case as well for April but delayed reporting from 10 out of 13 sites has caused an apparently lower level of admissions than last year. Admissions are expected to increase, as per the trend last year, starting in May.

The median recovery rate in the Lango sub-region was only 87%, ranging from an abysmal 27% up to 97%. With the exception of Lira Regional Hospital, all programmes in the sub-region consis-

Lango New Admissions - TFP 2007/2008





tently achieved SPHERE recovery targets.

Median mortality rates were very good at 3%; however, Lira Regional Hospital consistently had mortality rates between 20% and 35%. Defaulter rates also demonstrated an acceptable median for the sub-region (4%) but had a large range from 0-40%; however, 5 out of the 6 programmes were consistently within SPHERE standards for defaulting.

As mentioned in the National Overview of Feeding Programmes, poor programme performance in Lira Regional Hospital is likely related to the fact that it handles the most complicated cases as both PAG and Aboke refer their cases there. As a Government supported facility, it suffers from the same problems explained earlier, such as insufficient Human Resources both in number and capacity.

Karamoja Sub-Region

The nutrition situation in Karamoja sub-region is alarming. With 3 years of successive shocks, this chronically food insecure population has withstood severe drought in 2006, dry spells, flooding, animal and crop disease in 2007 and the present drought which has delayed the onset of rains and, therefore, the planting season. This situation has been further complicated by poor sanitation, inadequate access to basic health services, severe environmental degradation and widespread insecurity, all of which are eroding people's coping capacity and seriously compromising the livelihood of the population.

Given the situation, an action plan has been put in place by the Nutrition and HIV/AIDS Cluster to scale-up operations in Karamoja and to address the nutrition crisis, including:

- Strengthening the capacity of existing TFCs in Kaabong and Matany to serve as stabilization centres as well as establishing a new TFC in the Nakapiripirit area
- Creation of new OTPs in the 3 worst affected districts
- Strengthening and expansion of SFP and MCHN programmes
- Large scale active case finding and referral in all districts
- Ensuring adequate availability of therapeutic foods
- Improving access to and use of LLINs
- Increase of polio and measles immunization coverage, vitamin A supplementation and deworming treatment for children
- Promotion of adequate feeding practices, hand washing and appropriate management of diarrhoea.
- Advocacy for more humanitarian agencies to deliver service in Karamoja.

ACF, MSF-Spain and MSF-Holland are scaling up operations in Moroto, Kaabong and Nakapiripirit districts for malnutrition.

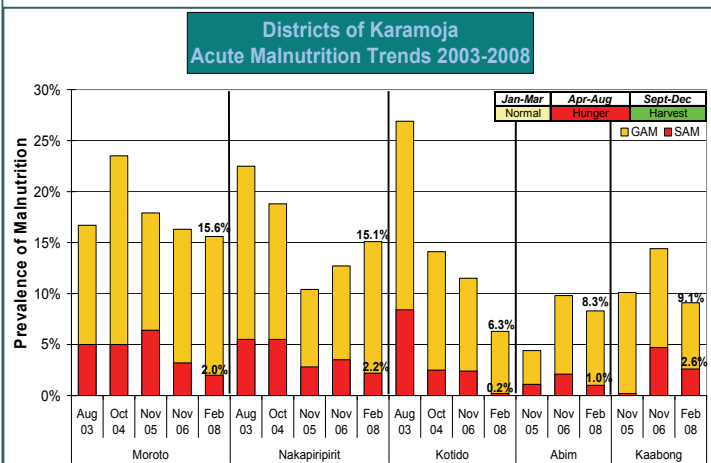


Photo by MSF-Spain

Nutrition Assessments:

All-Karamoja, February 2008, IBFAN and MOH

Nutrition: The overall GAM prevalence in the Karamoja sub-region of 10.9% and SAM of 1.7% highlights a serious situation. Moroto, Nakapiripirit and Kaabong revealed even higher levels of malnutrition with GAM rates over 15% in Moroto and Nakapiripirit and SAM rates of 2% or greater in all three districts. Moroto and Abim also demonstrated high levels of chronic malnutrition with 45% stunting compared with the overall prevalence in the sub-region of 35%. **Health/Mortality:** Although the overall Karamoja under-five mortality rate was below alert thresholds at 0.88/10,000/day, the crude mortality rate was above SHPERE alert levels at 1.12 deaths/10,000/day. The situation in Kaabong has surpassed emergency thresholds for both crude and under-five mortality, while Moroto and Kotido are above alert levels for CMR. It is important to note that gun shots were cited as the main cause of death in Kaabong and Kotido. The survey also demonstrated extremely low levels of access to health care, with approximately 45% of children immunized for measles (range 24-68%) or receiving Vitamin A supplementation within the previous 6 months (range 21-66%). **Water/Sanitation:** People accessed less than 9 litres of water per person per day, far below the SPHERE recommendation of 15 litres per day. An astounding 86% of the population reported use of the bush for defecation. **IYCF:** Overall, most children ate one (16%) to two (55%) meals per day; however, 40% of children in Moroto only ate one meal a day, demonstrating the gravity of the



situation there. **Conclusion/recommendations:** The nutrition situation in the Karamoja region is alarming (>10% with aggravating factors) and several districts also display high mortality rates. This situation calls for urgent interventions to ensure treatment reaches children in need such as the creation of additional TFPs, strengthening and scale up of screening for malnutrition and referral, improvement of access to health services, safe water and sanitation facilities as well as the promotion of IYCF practices on a large scale.

Kaabong District, November 2007, MSF Spain

Nutrition The prevalence of GAM and SAM was 15.3% and 1%, respectively. **Conclusion/comment:** The prevalence of acute malnutrition was a sign of a threatening food crisis, therefore, MSF-Spain have responded by extending nutritional programmes to new areas and to integrate them within existing health structures, paying special attention to maternal and child health.

Summary of Nutrition assessments in Karamoja sub-region

	February 2008						November 2007
	<i>Karamoja Overall</i>	<i>Abim District</i>	<i>Kaabong District</i>	<i>Kotido District</i>	<i>Moroto District</i>	<i>Nakapiripirit District</i>	<i>Kaabong District</i>
	IBFAN and MoH						MSF Spain
Number of households assessed	5310	1343	1015	952	996	1003	802
Under fives (6-59 months) assessed/included in the analysis	4161	974	814	758	841	811/774	912/907
Sampling	Two-stage cluster	Two-stage cluster	Two-stage cluster	Two-stage cluster	Two-stage cluster	Two-stage cluster	Cluster
Reference data used & reported (* used in this table)	NCHS	NCHS	NCHS	NCHS	NCHS	NCHS	NCHS* & WHO
Global Acute Malnutrition (WHZ <-2 or oedema) & 95% CI	10.9% NA	8.3% (4.9-11.6)	9.1% (6.7-11.6)	6.3% (4.6-8.1)	15.6% (12.2-19.1)	15.1% (12.6-17.6)	15.3% (12.4-18.3)
Severe acute malnutrition (WHZ <-3 or oedema) & 95% CI	1.6% NA	1.0% (0.1-1.8)	2.6% (1.1-4.1)	0.3% (0.0-0.6)	2.0% (0.7-3.3)	2.2% (0.3-3.5)	1.0% (0.4-1.6)
Crude Mortality Rate as deaths/10,000/day & 95% CI	1.12 (0.85-1.43)	0.24 (0.1-0.37)	2.36 (1.66-3.07)	1.51 (0.90-2.13)	1.12 (0.85-1.43)	0.3 (0.1-0.5)	NA
Under Five Mortality Rate as deaths/10,000/day & 95% CI	0.88 (0.44-1.31)	0.34 (0.24-0.91)	3.1 (1.58-4.63)	0.72 (0.24-1.20)	0.88 (0.41-1.31)	0.6 (0.01-1.13)	NA
Stunting (HAZ <-2) & 95% CI	35.5%	45.1	36.7	21.0	45.1	29.8	NA
Malnourished by MUAC (<125cm) for children >75cm	NR	NR	NR	NR	NR	NR	6.8%
At risk by MUAC for children >75cm (>125cm and <135cm)	NR	NR	NR	NR	NR	NR	22.5%
Children (9-59 months) immunized against measles (card or recall)	45.1%	68.2	33.2	49.8	50.2	24.1	NR
Children supplemented with Vitamin A	42.7%	66.2	35.7	45.7	44.5	21.5	NR

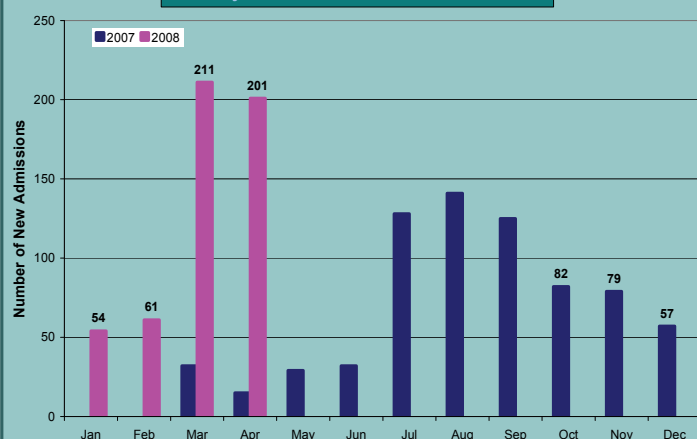
Feeding Programmes:

There were 745 new admissions to TFPs in the Karamoja sub-region (2 TFCs and 9 OTPs) from October 2007 through April 2008. Monthly admissions to the programmes ranged from 54 to 211 children per month, with the low in January and the high in March. The large jump seen in March and April reflect the scale-up of active case finding and of nutritional programmes in the region. Despite this increase in programme activity, it is still

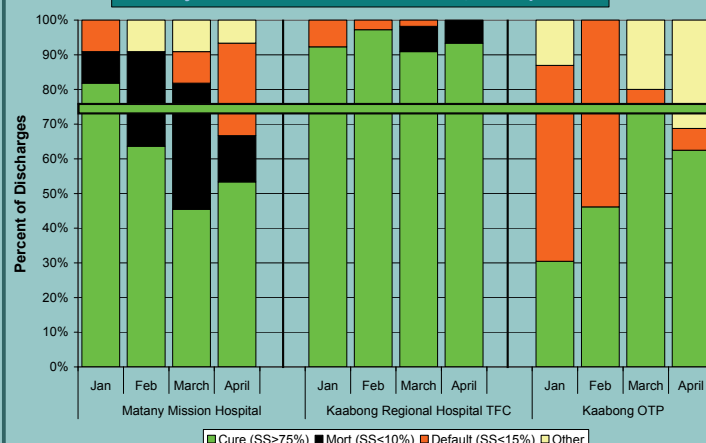
expected that monthly admissions will continue to increase over the coming months until the peak of the hunger gap in August, as per seasonal trends. Given the drought conditions that Karamoja has been experiencing, it is anticipated that admissions during the hunger gap will continue to be much higher than last year.

The three TFPs in the Karamoja sub-region have shown varied performance from January through April 2008. Kaabong Re-

Karamoja New Admissions - TFP 2007/2008



Karamoja TFP Performance Indicators, Jan-April 2008

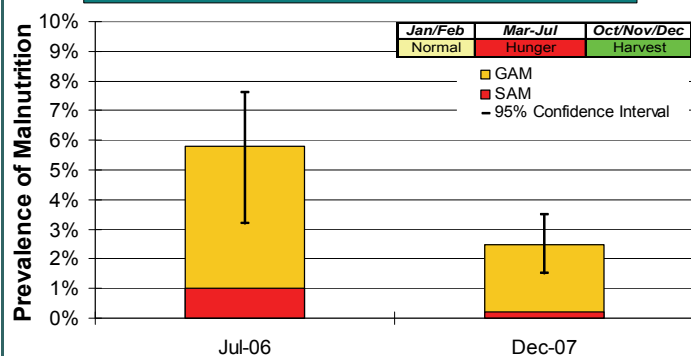


gional Hospital was the only programme to consistently perform within SPHERE AND Uganda targets while both Matany Hospital and Kaabong OTPs fell below the standards nearly every month. Matany Hospital demonstrated high mortality rates, up to 36%, despite on-the-job training in early 2007, likely reflecting the lack of staff as nursing assistants are in charge of day to day operations despite the allocation of a Clinical Officer to the TFC.

Kaabong OTP had a problem with high defaulting (~55%) in the first two months of the year but improved the situation in March and April. With the current grave situation in Karamoja regarding drought-like conditions and the peak of the hunger season approaching, it is critical to take immediate action to ensure quality standards are being met in these programmes to increase the number of children recovering from treatment.

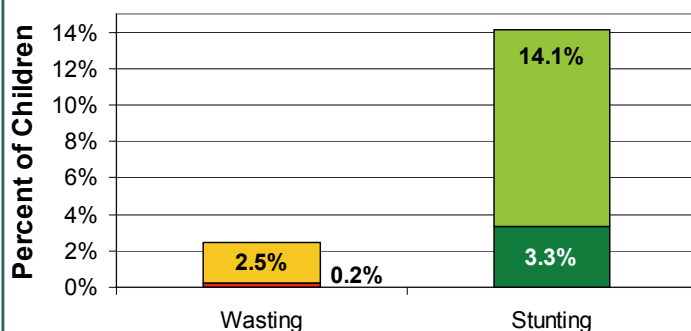
EASTERN REGION

Katakwi District* Acute Malnutrition Trends 2006-2007



*Survey populations varied between surveys as follows: 2006 included IDP camps and settlement areas while the 2008 survey was district-wide.

Chronic & Acute Malnutrition After Floods Katakwi District, Dec 2007



Nutrition: Through a rapid assessment using MUAC, 1.8% to 3.1% of children were found to be malnourished (MUAC<12.5cm) and 4.7-10% at risk of malnutrition (MUAC 12.5-13.5cm).
Conclusion/Recommendation: The nutrition situation appeared to be typical. An in-depth study to establish detailed anthropometric indicators and regular monitoring and surveillance were recommended for action.

Summary of Nutrition Assessments in Teso sub-region

	December 2007		November 2007			
	Katakwi district		Flood-affected Areas of Northern and Northeastern Uganda			
	GVC		UNICEF and WFP			
Number of households assessed	693		NR			
Under fives (6-59 months) assessed/included in the analysis	944/922		3394			
Sampling	Two-stage cluster		Random sampling			
Reference data used & reported (* used in this table)	NCHS* & WHO		NCHS			
Global Acute Malnutrition (WHZ <-2 or oedema) & 95% CI	2.5% (1.5-3.5)		NA			
Severe acute malnutrition (WHZ <-3 or oedema) & 95% CI	0.2% (0.0-0.7)		NA			
Presence of Oedema	0.1%		NR			
Crude Mortality Rate as deaths/10,000/day & 95% CI	0.35 (0.22-0.49)		NA			
Under Five Mortality Rate as deaths/10,000/day & 95% CI	0.67 (0.19-1.15)		NA			
Stunting (HAZ <-2) & 95% CI	14.1% (11.4-16.7)		NA			
Malnourished by MUAC (<125cm) for children >75cm	NA		Lango	3.1%	Kumi	0.0%
			Teso	3.1%	Kitgum	1.8%
			Elgon	1.8%		
At risk by MUAC for children >75cm (>125cm and <135cm)	NA		Lango	10.0%	Kumi	4.7%
			Teso	7.6%	Kitgum	8.8%
			Elgon	7.4%		

Note: Results from this rapid assessment should not be compared directly to the other nutrition surveys that used weight for height measurements, as the prevalence of malnutrition differs depending upon the indicator used with the prevalence by MUAC often coming out lower than the prevalence using weight for height.

Feature Projects

Community-based Child Growth Promotion Activities result in better Growth Trends and Nutrition.

Uganda Program for Human and Holistic Development (UPHOLD), a USAID-funded program managed by JSI, supported community-based growth promotion (CBGP) in six districts. The project aimed to empower communities to prevent malnutrition among children (<2 years old) and to act as a catalyst to solve problems of illness, poor feeding practices and other childcare concerns at the community and household level. Over 12,000 children participated in CBGP in 524 villages.

Results: Communities with better participation achieved better child growth trends. The average rate of adequate growth in communities with high participation was 73% compared to 57% in communities with low participation. Recuperating from growth faltering was also associated with program participation – recuperation rates were 63% in communities with high participation compared to 36% in communities with poor participation.

By the end of 2007, overall malnutrition levels (weight-for-age <-2 z-score) for children participating in the program had declined from 18.3% (n=748) in 2006 to 11.6% (n=680). Mothers of children who were faltering in growth were more likely to have learned something new during counselling compared to those whose children were growing well.

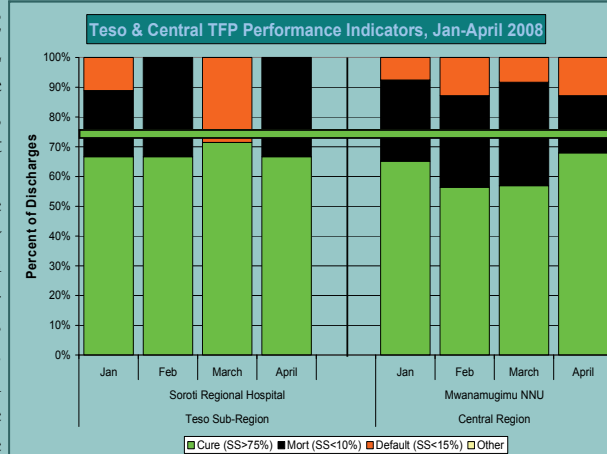
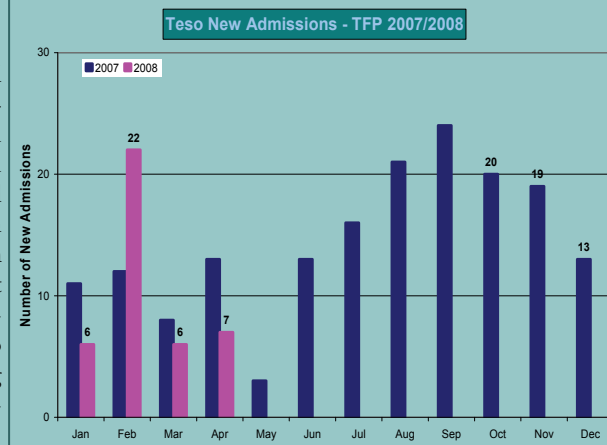
For further information on this project of study, contact Margaret Kyenka, mkyenka@yahoo.com or (256)772 384 411.

Feeding Programmes:

The one TFC in the region, Soroti Regional Hospital, had 93 new admissions between October 2007 and April 2008 with a minimum of 6 and a maximum of 22 children admitted per month. While January, March and April had fewer admissions than in 2007, February 2008 had almost double the number of new admissions. Admissions are expected to begin to increase over the coming months as the hunger gap approaches.

Although performance in the TFC was consistently below the SPHERE and Uganda targets throughout the October 2007 and April 2008 period, recovery rates were fairly steady at nearly 70%, just below the targets. Both death and defaulter rates were high, although partly due to the low numbers of discharges per month (between 6 and 9). This poor performance of the TFC underscores the importance of identifying cases early, particularly with the lack of an SFC nearby and the large size of the catchment area, highlighting the need to strengthen the community level component of this programme. Training of VHT's on early identification of malnourished children is planned by District

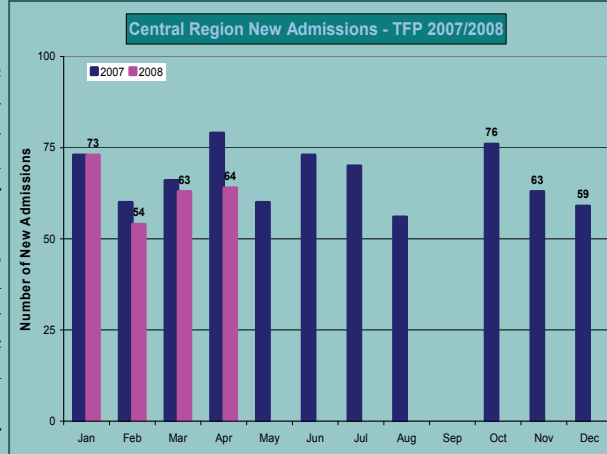
Health Teams as well as the scale up of nutrition and health promotion activities as preventive strategies.



CENTRAL REGION

Feeding Programmes:

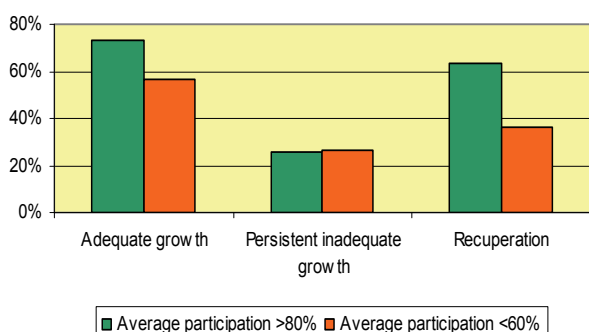
452 children were admitted to the one feeding programme in the Central Region, the Mwanamugimu National Nutrition Unit (MNU), with an average of 65 admissions per month and a range from 54 to 76. In contrast to all the other regions, there was little monthly variation in the level of admissions to this referral centre; this is either due to little seasonal difference in malnutrition or to limited capacity in the centre. Admissions have been slightly lower this year than in 2007.



Performance in the TFC was lower than SPHERE and national targets for the period from January through April 2008. Recovery rates fluctuate between 55-68%; mortality rates are fairly high between 20-35%. Defaulting rates, however, seem to be under control, con-

sistently falling below the recommended 15%. The combination of these performance indicators is a reflection of the likely severity of the cases seen at this referral centre. As mentioned earlier, this mirrors the reality that the severest cases are referred, often late, to larger facilities considered more capable of handling severe cases. In addition, MNU receives a significant number of referrals from the Paediatric Infectious Disease Centre of malnourished HIV+ children. It is estimated that the HIV prevalence in the TFC could be as high as 50%.

Participation improves Growth



Feature Projects

HIV/AIDS & NUTRITION

The Agriculture Nutrition Advantage Project

This project, USAID-funded, addresses obstacles of advocacy for nutrition in Uganda by working with farmer groups and communities as well as with key executive bodies. Work with farmer groups at district and sub-county levels builds knowledge on gender-sensitive agriculture and nutrition interventions as well as creates demand (by communities) for Government agencies to work with them to provide the necessary services. The project also raises awareness in the executive bodies of the Plan for Modernization of Agriculture, the Uganda Food and Nutrition Strategy, and the Poverty Eradication Action Plan of the benefits of interventions integrating gender, nutrition, health and agriculture. The project is implemented by National Agricultural Research Organization (NARO), Makerere University and Africare. Contact Joyce Kikafunda: joycek@agric.mak.ac.ug or (256)772 484 136.

Two projects are currently being implemented to improve the lives of HIV/AIDS-affected persons, the Clinton Foundation's *Nutrition Care and Support for the HIV-Exposed Malnourished Children Project* and the NuLife Project.

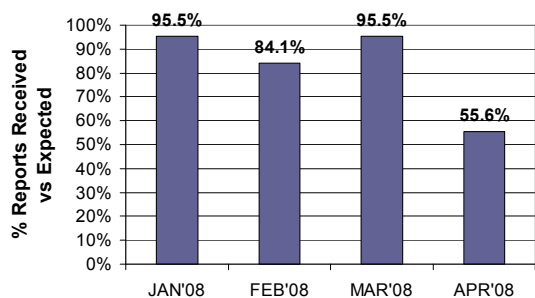
Clinton Foundation's Nutrition Care and Support for the HIV-Exposed Malnourished Children Project

The project gives dietary support, using high energy and nutrient dense supplements, to stabilize and rehabilitate severely and moderately malnourished HIV-positive children and adults. The project's primary target is malnourished HIV-infected children between 6 months and 18 years but assists all malnourished children within affected households. Currently, eight facility-based coordination sites, with an average of 100 children each, are being supported. These sites, purposely selected throughout the country, are expected to care for more than 6,000 children this year. For further information contact: Matt Price (mprice@clintonfoundation.org) or Anita Deshpande (adeshpande@clintonfoundation.org), or tel: (256)775 598 633.

NuLife – The Food & Nutrition Intervention Project

This project works on increasing the utilization, adherence and efficacy of anti-retrovirals through food and nutrition interventions. The Food and Nutrition Intervention Project builds on the results of the MOH's Quality of Care Initiative's ART Collaborative – a scale-up intervention currently operating in 120 health facilities in 11 regions of the country. The project collaborates with international organizations, community-based organizations and UN agencies in addition to the MoH and is currently working closely with the MOH to harmonize objectives and activities under the National HIV/TB Strategy framework. Contact: Peggy Cooniz-Bohr, pcooniz_bohr@urcchs.com or (256)777 172 149.

TFP REPORTING

Overall TFP Reporting by Month, Jan-April 2008

For the period from January through April 2008, TFP reporting rates were fairly high (between 84 and 96% overall) with the exception of April when just over half of the programmes reported. While most programmes only failed to report for one of the four months, several programme sites in Acholi sub-region missed between two and four months reports.

**Reports Received for All Four Months January-April 2008****Acholi**

Lalogi
Gulu Regional Hospital
Lacor Missionary Hospital
Agoro
Padibe
Potika
St. Joseph Mission Hospital
Padibe HCIII
Pajule,
Patongo
Atanga
Purango
Kalongo Missionary Hospital
Pajule HCIII

Lango

Lira Regional Hospital
PAG Missionary HCIII
Aboke

Karamoja

Kaabong Regional Hospital
Kaabong OTP
Matany Missionary Hospital

Teso

Soroti Regional Hospital

Central

Mwanamugimu Nutrition Unit

Western

Nyahuka Health Center IV

Reports Not Received for 1-4 months**1 Month**

Acholi
Alero
Amuru
Acet
Opit
Pabbo
Kitgum Matidi
Muchwini
Lango
Okwang
Olilim
Omoro
Adwari
Orum
Acokora
Ajaga
Ngai
Otwal
Alito

2 Months

Acholi
Bobi
Awach
Anaka

4 Months

Acholi
Olwal
Cwero

SURVEY QUALITY CHECKS RESULTS

The quality of the survey results presented in this bulletin was checked in order to determine that the information is reliable and accurate. These checks can be performed easily using Emergency Nutrition Assessment software (www.nutrisurvey.de/ena/ena.html).

Digit Preference (DP) for weight & height: Indicates how accurately children were weighed, and when done correctly, there shouldn't be any digit preference (DP). This often occurs when enumerators round to the nearest cm/kg or half cm/kg. No, +, ++, +++ indicate if there was any DP for a number and if it was mild, moderate, or severe, respectively.

Standard Deviation (SD) of WHZ: This indicates whether there were substantial random errors made in measurements. In a normal distribution, the SD is equal to +1, but should lie between 0.8 and 1.2 z-score. SD increases as the proportion of erroneous results in the dataset increases.

Skewness of WHZ: This is a measure of the degree of asymmetry of the data around the mean. A normal distribution is symmetrical and has zero skewness and should lie between plus or minus one. Positive skewness indicates a long right tail while negative indicates a long left tail.

Kurtosis of WHZ: This demonstrates the relative peakedness or flat-

ness compared to a normal distribution. The normal distribution has zero kurtosis and surveys should lie between plus and minus one. Positive kurtosis indicates a peaked distribution while negative is a flat one.

Percent of flags: "Flags" are measurements that are highly unlikely to occur in nature and are, therefore, highlighted by assessments' software. These incoherent measurements should be corrected or discarded prior to analysis. 0% flags is ideal, but should be less than 2-3% of children measured.

Age Distribution: This allows a view of the representativeness of the sample, and should be similar to the distribution within the population, and to that of the developing world (see footnote on table). Age bias is a particular concern for anthropometry, as younger age groups (6-29 months) are more likely to be malnourished than older age groups (30-59 months). This means that under-representation (UR) of the younger children (or over-representation (OR) of older children) may give a lower prevalence of malnutrition than the actual one, and vice versa. The age ratio allows a view of this relationship and should be between 0.78 and 1.18, with an ideal ratio of 0.98.

Sex Ratio: Like the age distribution, this allows a view of the representativeness of the sample and should be similar to the distribution within the population. This should not vary too much from the expected sex ratio and should lie between 0.8 and 1.2.

Results of Survey Quality Checks

	Gulu & Amuru Makerere University	Abim IBFAN	Kaabong IBFAN	Kotido IBFAN	Naka-piripirit IBFAN	Moroto IBFAN	Katakwi GVC	Lira ACF	Oyam & Apac ACF	Kaabong MSF-S
Digit Preference – Weight	No	0+, 5+, 8+	2+, 8+	0+, 8+	0+, 6+, 9+	2+, 0+, 6+				
Digit Preference – Height	0++	0+, 5+	2+, 0+	0+, 2+	0+, 2+, 4+	0+, 4+, 2+				
SD of WHZ	1.02	0.984	0.884	0.858	0.989	0.944				
Skewness of WHZ	0.27	-0.142	0.115	1.299	0.079	-0.66				
Kurtosis of WHZ	1.19	0.001	0.248	0.032	-0.182	-0.114				
Percent of flags	0	0**	0**	8.6%**	4.6%**	4.9%**				0.5%
Age Distribution Ratio (Younger:Older)* Over/Under Represent.	0.74 UR G1&2 OR G3,4&5	0.96	1.35 OR G1&G2	0.97	0.91	0.84				0.72 OR G3,4&5
Sex Ratio	1.04	1.12	1.02	1.05	1.13	1.11				1.0

* Normal demographic distribution, as per WHO, 2000, as follows: Group 1=6-17 months = 23.9%, Group 2=18-29 months = 25.5%, Group 3=30-41 months = 22.4%, Group 4=42-53 months = 19.2%, Group 5=54-59 months = 9.0%; age ratio is (Group 1+2) / (Group 3+4+5).

** In Karamoja's district assessment reports, the percent of excluded data was not detailed; therefore, the numbers presented here are estimates based on two figures, 1) the number of children that data was collected for, and 2) the number of children included in the prevalence of malnutrition using z-score.

UPCOMING EVENTS & SURVEYS/ASSESSMENTS

Nutritional Seasonal Calendar for Uganda

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bi-modal (Most of Uganda except below)	Normal		Hunger Gap				Major Harvest		Normal		Food Def	Mn Harvest
Uni-modal (Mainly Karamoja)	Normal					Hunger Gap					Harvest	
Year-round (Lake Victoria Basin)							Normal					

August

- Karamoja & Teso sub-regions

September

- Kitgum and Pader

October

Nutrition Assessments

- World Breastfeeding Week
- Official launch and dissemination of National IYCF Policy

- Accelerated child survival scale up operation in Karamoja region
- Endorsement of National Nutrition Survey guidelines

Other Events

- Finalisation of IMAM guideline
- Comprehensive Food Security and Vulnerability Assessment (Nationwide)
- Child Health Days October Round

Contributions provided by:

ACF; ACTED; ACIDI/VOCA; GOAL; IMC; MSF-Spain, SCU; World Vision; WHO; WFP; District Directorates of Health in Karamoja, Kitgum, Gulu, Lira, and Pader; Mwanamugimu National Nutrition Unit; Soroti Hospital; Gulu Hospital; Soroti Hospital; Lira Hospital; Anaka Hospital; Kalongo Mission Hospital; Matany Hospital; PAG Hospital; and St. Josephs Hospital

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