

# Nutrition Information in Crisis Situations

United Nations System  
Standing Committee on Nutrition



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MAY 2004 . REPORT NUMBER II



# Highlights

**ETHIOPIA—DIRE SITUATION OF IDPS IN SOMALI REGION**—The nutrition and food security situation has improved in most parts of Ethiopia compared to 2002 and 2003. This may be attributed to better weather conditions and to the humanitarian aid which have probably mitigated the situation. Whilst in some areas, the nutrition situation seems under-control, it is still average to precarious in most parts of Ethiopia. The Somali region is especially at risk, due to poor rainfall and the presence of IDPs. Urgent action is needed in the IDP camps in Somali region where dire living conditions have been reported as well as appalling rates of malnutrition since 2002.

**KENYA—NUTRITION CRISIS IN NORTHEASTERN ZONE OF TUKANA DISTRICT**—Turkana district is chronically food insecure and households' livelihoods have been eroded over the years. In some areas such as the northeast, coping mechanisms are limited and the food security and nutrition situation has worsened within the past two years; the prevalence of acute malnutrition has increased threefold between 2001-2002 and 2003-2004. In the northwest part of the district, the situation has also worsened but to a lesser extent. The nutrition situation in Kakuma refugee camp is above acceptable levels.

**CHAD—SUDANESE REFUGEES AT RISK**—The humanitarian situation of the refugees in Eastern Chad and of the host population seems to be rapidly deteriorating. Programmes should be scaled-up and integrate the host population. Donor agencies should increase their commitment to the crisis. The onset of the rainy season will further impair the delivery of assistance.

**SUDAN—WORSENING SITUATION IN DARFUR**—It is estimated that more than one million people are displaced throughout Darfur. Some settled with host families whilst other gathered in camps. Access to the population is extremely difficult because of the logistic and security conditions but also owing to the restrictions imposed by the government of Karthoum. The rainy season, which starts by mid-year and

coincides with the hunger gap, will further worsen the situation because of the decreased availability of food, increased risk of diseases and more difficult access to the population. Two nutrition surveys conducted in Darfur showed a worrying situation. On the other hand, due to an improvement in food security and security conditions, the situation has greatly improved in part of south Sudan but remains precarious whilst the situation remains serious in other parts which experienced bad weather conditions. IDPs and the local population will require humanitarian and development action as long as the situation is not consolidated on the ground.

**LIBERIA—AVERAGE NUTRITION SITUATION**—Several surveys conducted in Greater Monrovia, in IDP camps in Montserrado county and in Bomi and Grand Cape Mount counties showed an average nutrition situation.

**ANGOLA—INSUFFICIENT FUNDING**—There has not been noticeable improvement in the nutrition situation in Angola since 2003. This may be attributed to the fragile food security situation, especially for the returnees who represent a significant proportion of the population. Unfortunately, donors' and the government of Angola's commitment to Angola's reconstruction is weak and far from sufficient to ensure a significant improvement of the situation.

**NEPAL—INTENSIFICATION OF THE CRISIS**—The on-going conflict has led to major human rights abuses and to the displacement of thousands of people into major cities and India. Whilst the better-off may be able to cope with the displacement, the poorest may be in a more difficult situation. In rural areas, although the direct impact of the conflict on food security is unclear, the recent upsurge in violence may have further weakened the already flimsy food security of the population, and coping mechanisms may become exhausted. The nutrition status of the refugees is average, with micro-nutrient deficiencies reported, although some measures have been taken to overcome this problem.

## Risk Factors affecting Nutrition in Selected Situations

Situations in the table below are classed into five categories relating to prevalence and or risk of malnutrition (I—very high risk/prevalence, II—high risk/prevalence, III—moderate risk/prevalence, IV—not at elevated risk/prevalence, V—unknown risk/prevalence; for further explanation see section "Indicators and classification" at the end of the report).

The prevalence/risk is indirectly affected by

both the underlying causes of malnutrition, relating to food security, public health environment and social environment, and the constraints limiting humanitarian response. These categories are summations of the causes of malnutrition and the humanitarian response, but should not be used in isolation to prescribe the necessary response.

	<b>ETHIOPIA</b> IDP camps in Somali region	<b>KENYA</b> Northern Turkana	<b>WEST DARFUR</b> Wade Saleh and Mukjar provinces	<b>ILBERIA</b> Bomi and Grand Cape Mont counties	<b>NORTHERN UGANDA</b> IDP camps	<b>PAKISTAN</b> Flood affected, Badin district
Nutritional risk category	I	I	I	III	II	II
<b>FOOD SECURITY</b>						
Households' livelihoods	☹	☹	☹	☺	☹	☹
External assistance	☹	☺	☺	☺	☺	☺
<b>PUBLIC HEALTH ENVIRONMENT</b>						
Availability of water and access to potable drinking water	☹	☹	☹	☺	☹	☺
Health care	?	☺	☺	☺	☹	?
Sanitation	☹	☹	☹	?	☹	☺
<b>SOCIAL AND CARE ENVIRONMENT</b>						
Social environment	☹	?	☹	☺	☹	?
Child feeding practices	?	?	?	?	?	?
<b>DELIVERY OF ASSISTANCE</b>						
Accessibility to population	☹	☺	☹	☺	☹	?
Resources for humanitarian Intervention	?	☺	☺	☺	☺	☺
Availability of information	☺	☺	☺	☺	☺	☺



ADEQUATE



MIXED



INADEQUATE

# Greater Horn of Africa



## Eritrea

The *Bahri* rains (November-February) were poor and improved only in February, which was too late to benefit crops but did replenish pastures (FEWS, 25/03/04). On the other hand, despite coming later than usual, the *Azmera* rains facilitated agricultural activities in April (FEWS, 21/04/04).

As of April 2004, pledges for the WFP's drought emergency programme amounted to approximately 54% of the 2004 requirements (WFP, 30/04/04). When programmes through NGOs and bilaterals were also taken into account, only 38% of the food needs were covered, and food rations have therefore been reduced (OCHA, 23/04/04). Non-food needs were even less resourced, with only 37% coverage for seed needs and an overall 5% coverage for the non-food sector (OCHA, 23/04/04).

## Precarious nutrition situation

The MOH in collaboration with UN agencies and NGOs has set up the National Nutrition Surveillance System (N-NSS) to develop unified methodologies, training manuals and harmonization of approaches and data systems. As part of this system, random-sampled nutrition surveys were conducted in rural areas of Anseba, Debub, Gash Barka and Northern Red Sea in December 2003 (MOH/Joint, 12/03). **The results showed that the situation was of concern, with acute malnutrition rates varying between 12.8% and 16.9%, depending on the region** (table 1). Moreover, a significant proportion of women had a BMI < 18.5 (table 1). When compared with previous surveys, the

situation does seem to have improved slightly. This was mostly attributed to the seasonal harvest and general and supplementary food distributions.

## FOOD SECURITY

Most of the families interviewed during the assessment (96%) said that the food security situation at the time of the survey was not bad.

## FOOD DISTRIBUTION

The intended food distribution was 15-17 kg cereals, 1.2 kg pulses and 0.9 kg oil per person per month (2100/Kcal/pers/day) to 60-70% of the population.

According to the survey, about 99% of the families had received regular food distributions within the four months prior to the survey. Depending on the area, the households had received an average amount of 10.4-12.3 kg cereals, 0.5-0.7 kg pulses, 0.4-0.6 kg oil per person per month (about 1400 Kcal/pers/day).

## SUPPLEMENTARY FEEDING

A significant percentage of children were receiving supplementary food: 28%, 40%, 49% and 36% in Gash Barka, Debub, Northern Red Sea and Anseba, respectively. There was no common mechanism of supplementary food distribution. Supplementary feeding was targeted at malnourished children in some places, whilst there was no targeting in other areas.

TABLE 1 PREVALENCE OF ACUTE MALNUTRITION, ERITREA, DECEMBER 2003 (MOH/JOINT, 12/2003)

0-59 month old children		18 to 60 year old women	
Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)	Moderate Chronic Energy Deficiency 16 >= BMI < 18.5 (%)	Severe Chronic Energy Deficiency BMI < 16 (%)
<b>ANSEBA</b>			
13.9 (9.1-17.99)	2.7	39	11
<b>DEBUB</b>			
12.8 (9.2-16.5)	3.7	37	5
<b>GASH BARKA</b>			
15.6 (12.1-19.3)	3.2	35	10
<b>NORTHERN RED SEA</b>			
16.9 (12.3-22.5)	3.5	36	14

TABLE 2 MEASLES VACCINATION COVERAGE, VITAMIN A DISTRIBUTION COVERAGE AND HEALTH CARE, ERITREA, DECEMBER 2003 (MOH/JOINT, 12/03)

Measles vaccination coverage (%)	Vitamin A distribution coverage within the last 6 months (%)	Mothers seeking medical treatment when the child is ill (%)
<b>ANSEBA</b>		
85.5	94.9	33.1
<b>DEBUB</b>		
93.8	97.1	50.7
<b>GASH BARKA</b>		
90.2	94.5	59.2
<b>NORTHERN RED SEA</b>		
59.3*	88.4	52.0

\* According to cards only

## PUBLIC HEALTH

The coverage of vitamin A supplementation was high as well as the measles vaccination coverage (table 2). This was partly attributed to the “polio and measles catch-up immunisation” campaigns, carried out beside the regular programme. On the other hand, a low percentage of the mothers were seeking care when their children were ill (table 2).

Access to water and to safe drinking water was very poor (table 3).

TABLE 3 ACCESS TO WATER, ERITREA, DECEMBER 2003 (MOH/JOINT, 12/03)

Fetching water from a protected source (%)	Consuming < 15 L water/pers/day (%)
<b>ANSEBA</b>	
37.4	89
<b>DEBUB</b>	
25.8	71
<b>GASH BARKA</b>	
61	60
<b>NORTHERN RED SEA</b>	
41	62

## Internally Displaced Persons

It is estimated that there are about 59,000 IDPs settled in camps or in host communities. Most are displaced because of the lingering effects of the border war with Ethiopia (OCHA, 23/04/04). IDPs in Koronko camp in Gash Barka region face dire conditions: IDPs

were reported as lacking basic facilities such as access to water and potable water, sanitation, sufficient food rations and non-food items (OCHA, 02/04/04).

## Overall

The lingering effects of the war with Ethiopia and the last years' drought have had a significant impact on households' food security and nutritional status in a country where the general situation was already poor. Emergency and long-term development programmes as well as reforms at the macro-economic level are crucial.

## Recommendations

*From the MOH/joint surveys*

- Monitor the nutrition situation closely
- Develop a system to gather and analyse a larger set of food security and nutrition data
- Link relief responses to long-term actions
- Develop nutrition training and growth monitoring

## Ethiopia

Despite an improvement in the food security situation owing to better harvests and rains in 2003 than in 2002, the situation remains precarious. About 7 million people are still in need of food aid in 2004. However, as of April 2004, food aid needs were only 43% funded (ENFS, 04/04). Nutrition programmes have been scaled down and NGOs have handed some facilities over to the Ministry of Health (USAID, 08/04/04).

### Worrying situation in some resettlement sites

The Government of Ethiopia started a resettlement programme in 2003, with the aim of addressing food insecurity. In 2003 and 2004, approximately 350,000 people were resettled in Amhara, Oromya, SNNPR and Tigray regions (USAID, 08/04/04). A joint evaluation in some resettlement areas showed that the sites, especially in Oromya region, lacked adequate food, access to water, shelter, health care and agriculture inputs (USAID, 08/04/04). In addition to the cereal ration, a supplementary food distribution of blended food has been started for vulnerable groups (WFP, 21/05/04). A very high number of malnourished children was recorded in October 2003 in resettlement sites in Tigray (see RNIS 43).

### Improved but still average nutrition situation in South Wollo zone, Amhara region

Three random-sampled nutrition surveys were conducted during the harvest in November-December in South Wollo (table 4) (Concern, 11/03; DSA, 12/03). The surveys showed average rates of acute malnutrition.

Whilst it was the first survey which was conducted in Tedhudere district, comparison with previous survey results was possible in Dessie Zuria and Kalu districts. In both districts, trends in prevalence of malnutrition showed that the situation in November 2003 was comparable to that in 2000, 2001 and the beginning of 2002. On the other hand, the situation has improved when compared to the second semester of 2002 (which corresponded to the

TABLE 4 ACUTE MALNUTRITION AND MEASLES VACCINATION COVERAGE, SOUTH WOLLO, AMHARA REGION, ETHIOPIA, NOV-DEC 2003 (CONCERN, 11/03; DSA, 12/03)

% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Measles immunisation coverage (%)*
DESSIE ZURIA DISTRICT, SOUTH WOLLO ZONE		
12.0 (9.6-14.7)	0.5 (0.1-1.9)	72.6
DESSIE ZURIA DISTRICT, SOUTH WOLLO ZONE		
9.9 (7.6-12.3)	0.3 (0.3-0.6)	85.8
TEHULDERE DISTRICT, SOUTH WOLLO ZONE		
7.5	-	81.5

\* According to cards and mothers' statements

period of drought) when the rates of malnutrition were the highest recorded since 2000. In the three districts, 50% to 60% of the families received food through the Employment Generation Scheme (EGS) in 2003. In Dessie Zuria and Kalu districts about 15% of the children also received food through supplementary feeding programmes. In these districts, the current harvest was better than in 2002. The main sources of income were sale of livestock, cash crops and petty trading. EGS was interrupted in September-October 2003 and was intended to restart in April/May 2004 (when the poorest may have exhausted their harvest), targeting a lower proportion of the population than in 2003. Young children feeding practices seemed poor, with about half of the mothers not being given colostrum within the first three days of their children's lives. Food was introduced into the children's diet between 4-6 months of age by only 60% of the mothers.

### High food insecurity in Somali region

Poor rains at the end of last year have significantly affected food security in some parts of Somali region. However, rainfall improved in March and April 2004, mitigating the poor situation (ENFS, 04/04).

## PRECARIOUS NUTRITION SITUATION IN AYSHIA, SHINILE, DEMBEL & ERER DISTRICTS, SHINILE ZONE

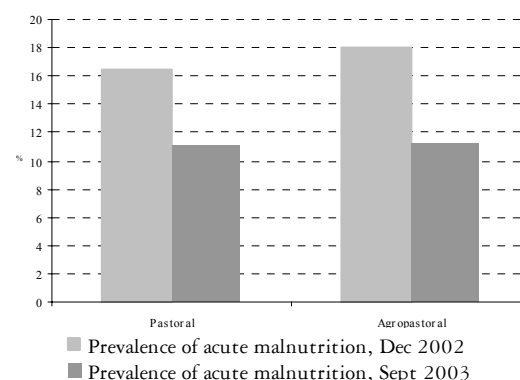
Two random-sampled nutrition surveys were conducted in September 2003, within the agro-pastoral and pastoral population (SC-UK, 09/03). The surveys showed an improvement in the nutrition situation compared to 2002 (figure 1), but the situation remains precarious (table 5). The surveys were conducted during the rainy season but before the harvest. The condition of livestock was reported as being good by almost all the households interviewed. Relief food had been received by most of the population within the month prior to the survey and represented the major source of staple food. The population was using coping mechanisms to get incomes.

Access to health care and safe drinking water was poor as well as the measles vaccination coverage.

## POOR NUTRITION SITUATION IN GODE DISTRICT

The nutrition situation was poor in Gode district in February 2004 (table 5) and within the same range as in November 2000, according to a random-sampled nutrition survey conducted by SC-US (SC-US, 02/04); the mortality rates were also very high (table 5). The food security situation appeared poor, partly due to the insufficient rains over the end of 2003 (see NICS 1); the general food distribution did not significantly improve the food security level of the population.

FIGURE 1 PREVALENCE OF ACUTE MALNUTRITION, PASTORAL AND AGRO-PASTORAL POPULATION, SHINILE ZONE, ETHIOPIA (SC-UK, 09/03)



## DIRE SITUATION OF INTERNALLY DISPLACED PERSONS IN SOMALI REGION

There are several displaced persons camps in Somali region. Fafen and Hartishiek displaced persons camps, situated in Jijiga zone, host between 10,700 to 14,700 people (depending on the estimation) who have been displaced for some years because of drought. Recent dispute on land ownership in Bordode/Mieso areas has led to the displacement of about 14,900 people in Shinille zone (OCHA, 03/2004).

An assessment conducted in March 2004 showed dire conditions in the camps (OCHA, 03/04). Food delivery has been prevented in Fafen since the beginning of the year, because of rivalries between the local population and the IDPs. At the time of the assessment, no general food distribution was implemented in

TABLE 5 ACUTE MALNUTRITION, MEASLES VACCINATION COVERAGE AND MORTALITY RATES, SOMALI REGION, ETHIOPIA

	Agency	Date	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Measles immunisation coverage (%)*	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
Gode district, Gode zone	SCF-US	Feb-04	21.4 (18.3-23.7)	2.8 (1.4-3.4)	81.4	1.23	3.76
Pastoral areas of Ayshia, Shinile, Dembel & Erer districts, Shinile zone	SCF-UK	Oct-03	11.1 (8.1-14.1)	0.9 (0.3-1.5)	4.7	-	-
Agro-pastoral areas of Erer, Shinile & Dembel districts, Shinile zone	SCF-UK	Sep-03	11.2 (8.2-14.3)	0.8 (0.2-1.4)	9.4	-	-

\* According to cards and mothers' statements

Bordode/Mieso but food had been distributed to vulnerable groups. Access to safe drinking water was not guaranteed in the camps and cooking and shelter materials were greatly needed. Nutrition surveys carried out in Fafen and Hartisheikh IDP camps in December 2003 showed appalling rates of malnutrition: 31.8% (27.7-35.9) and 28.5% (24.6-32.7) acute malnutrition, respectively (FSAU-N, 03/04). The malnutrition rates were within the same range as in March 2002 in both camps (see RNIS 38).

**BOX 1 IMPROVED FOOD SECURITY AND HEALTH CARE IN GOLA ODA DISTRICT, EAST HARARGHE ZONE, OROMYA, ETHIOPIA, DECEMBER 2003 (SC-UK, 12/03)**

**FOOD SECURITY  
LIVELIHOOD**

More families do possess livestock  
(94% in 2003 vs 70% in 2001)

The harvest was better than the previous years' and rated as average to good

Livestock condition was reported as good/medium by 90% of the persons interviewed, compared to 60% in October 2002

Main sources of income were sale of livestock, of own agricultural production and of cash crops, whilst in 2002, the main sources of income was the sale of firewood/charcoal and labour

Decrease in migration

Lower consumption of wild food in 2003 than in the previous years

**FOOD DISTRIBUTION**

About 80% of the families interviewed during the survey reported having received relief food through EGS or free food distribution in the four months prior to the survey

Supplementary and therapeutic feeding programmes were in place

**PUBLIC HEALTH  
IMPROVED ACCESS TO HEALTH**

Increase in the number of health facilities over the years  
Increase in measles and BCG vaccination coverage but measles vaccination coverage remains low and the number of health facilities is still inadequate

**Nutrition situation under control in parts of Oromya region**

According to two random-sampled nutrition surveys carried out in December 2003 and January 2004 (CRS, 01/04; SC-UK, 12/03), the nutrition situation in Meta, Kersa and Golo Oda districts is under control (table 6). These surveys were carried out just after the main harvest and so reflect an optimal situation.

**GOLO ODA DISTRICT**

Malnutrition rates have dramatically decreased in Golo Oda compared to the rates in 2001 and 2002 (figure 2). However, in 2001 and 2002, the surveys were performed at a less favourable period in regard to the food security situation (not at the harvest time).

The indicators of the food security situation showed an improvement at the time of the survey, compared to 2001 and 2002; the health situation has also improved, although it was still average (box 1). Mortality rates have decreased over the past years and were average (table 6).

**META AND KERSA DISTRICTS**

Similarly, the food security in these districts was reported as being satisfactory, with a good harvest and animals in a good condition. However under-five mortality rate was high (table 6), particularly due to malaria and relapsing fever epidemics.

**FIGURE 2 PREVALENCE OF MALNUTRITION, GOLO ODA, OROMYA, ETHIOPIA**

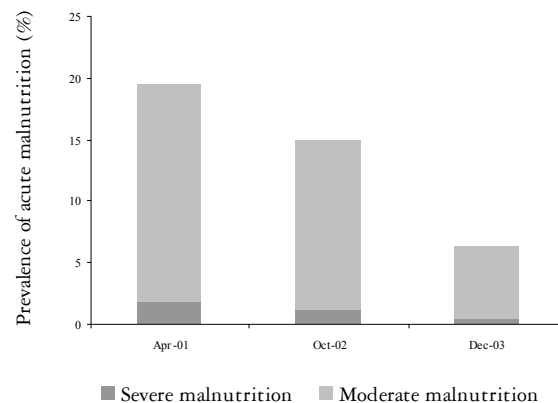




TABLE 6 RESULTS OF NUTRITION AND MORTALITY SURVEYS, OROMYA REGION, ETHIOPIA

	Agency	Date	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Measles immunisation coverage (%)*	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
Golo Oda district, East Haraghe zone	SCF-UK	Dec-03	6.3 (4.1-8.5)	0.5 (0.1-1.0)	43.6	0.75	1.44
Meta and Kersa districts, East Haraghe zone	CRS	Jan-04	4.1 (2.9-5.7)	0.8 (0.3-1.7)	77.6	0.82	2.04

\* According to cards and mothers' statements

TABLE 7 ACUTE MALNUTRITION AND MEASLES VACCINATION COVERAGE, SNNPR, ETHIOPIA

	Agency	Date	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Measles immunisation coverage (%)*
Offa district, Wolaita zone	Concern	Dec-03	13.4 (10.4-17.0)	0.4 (0.0-1.8)	11.8
Dalocha district, Silti zone	SCF-US	Dec-03	6.1 (4.7-7.9)	0.2 (0.0-0.9)	87.1
Lanfuro district, Silti zone	SCF-US	Dec-03	9.7 (7.8-11.7)	1.2 (0.5-1.9)	56.3
Meskan district, Gurahe zone	SCF-US	Nov-03	9.1 (7.4-11.2)	1.0 (0.5-1.9)	91.2
Mareko district, Gurahe zone	SCF-US	Nov-03	12.8 (10.9-15.4)	1.0 (0.5-2.0)	96.7
Shebdino district, Sidama zone	GOAL/SCF-US/ACF	Feb-04	7.8 (6.1-9.9)	0.3 (0.1-0.9)	73.2

\* According to cards and mothers' statements

### Average to precarious nutrition situation in SNNPR

The nutrition situation was average to precarious according to several surveys conducted in SNNPR (table 7); mortality rates were under-control.

At the end of 2003, the nutrition situation had not improved in Meskan and Mareko districts, Gurahe zone compared to March 2003 (SC-US, 11/03). The food security situation was still precarious owing to an only average rainy season.

In Lanfuro and Darecha district, the malnutrition rates have remained stable since March 2003 (SC-US, 12/03). Most of the households thought they will rely primarily on their crop production within the next three months.

In Offa woreda, Wolaita zone, although the nutrition and food security situation has significantly improved compared to September 2003, it remained precarious in December 2003, despite the harvest (Concern, 12/03). The crop was reported as being worse than in previous years and most of the households were relying on coping mechanisms.

In Shebedino woreda, Sidama zone, the nutrition situation was average in February 2004 and the food security situation was reported as

having improved compared to the previous six to 12 months (GOAL/SC-US/ACF, 02/04).

### Overall

The nutrition and food security situation has improved in most parts of Ethiopia compared to 2002 and 2003. This may be attributed to better weather conditions and to the humanitarian aid which have probably mitigated the situation. Whilst in some areas (such as some districts in Oromya zone), the nutrition situation seems under-control (category III), it is still average to precarious in most parts of Ethiopia (category II). The Somali region is especially at risk (category I), due to poor rainfall and the presence of IDPs. Urgent action is needed in the IDP camps in Somali region where dire living conditions have been reported as well as appalling rates of malnutrition (category I).

## Kenya

### Serious food security and nutrition situation in Turkana and Marsabit districts

Turkana and Marsabit districts are classified as "arid and semi-arid lands" and are amongst the driest and least productive in Kenya.

This area is chronically food insecure with a significant reduction in herds over the years. The last years of drought in 1999-2002 further weakened the livelihoods of this mostly pastoral population. The October-December short rains were poor in Marsabit district and poorly distributed in Turkana district, which prevented the pastures in the worst affected areas from being replenished. Moreover, increased insecurity in Turkana district, such as cattle raiding, has further exacerbated the poor situation. The condition of livestock was reported as deteriorating, the price of livestock was very low and the terms of trade were unfavourable to pastoralists (FEWS, 19/03/04). However, good rains in April may have mitigated the situation (FEWS, 06/05/04).

Several nutrition surveys recently carried out in these districts showed high rates of acute malnutrition, ranging from 18% to 34% (FEWS, 05/04/04).

About 230,000 persons (40% of the population) will benefit from food aid from April to July 2004, at a 50% ration (FEWS, 05/04/04).

#### NUTRITION CRISIS IN NORTH-EASTERN ZONE OF TURKANA DISTRICT

An appalling nutrition situation was found in the northeastern zone of Turkana district during a random-sampled nutrition survey conducted in February 2004 (OXFAM, 02/04).

**The prevalence of acute malnutrition was 34.4% (31.3-37.4), including 5.4% (4.0-7.0) severe acute malnutrition, and has dramatically increased within the last two years.** The rate of malnutrition was around ten percent in 2001 and 2002 and was about 28% in March 2003. Different factors, such as the poor rains in 2002-2003, the halt in the food distribution programme at the end of 2002 and the overall destitution of households over the years, may explain the deterioration of the nutrition situation. Mortality rates were also high:

CMR=2.1 /10,000/day and  
<5MR=2.6 /10000/day.

A significant proportion of pregnant and lactating women (42%) had a MUAC < 23 cm. Vitamin A distribution coverage was low and measles vaccination coverage was average (table 8).

The number of meals has significantly decreased compared to "normal times" (table 9). It is worth noting that 20% of the families reported having no meal the day prior to the survey, indicating a very worrying situation. The main livelihoods of households were pastoralism (64%), fishing (11%) and handicrafts (10%).

The traditional sources of income (from livestock or fishing) were limited by the bad condition of livestock and its low price, and by the high cost of inputs for the use of boats. People tended to shift to coping strategies such as an increase in petty trading.

As of May 2004, emergency general food distributions and food for work programmes were on-going and the implementation of treatment of severe malnutrition was planned.

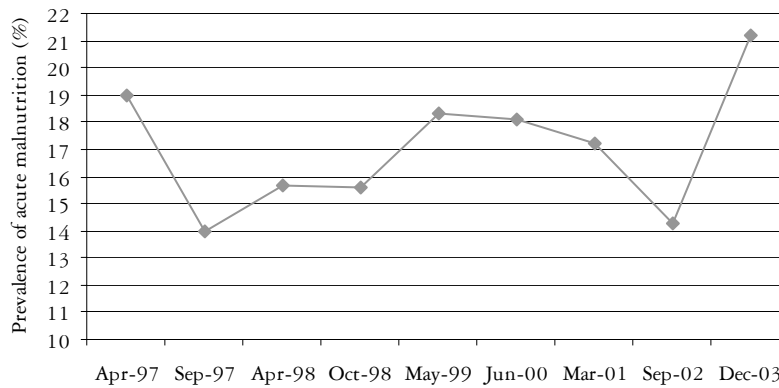
TABLE 8 MEASLES VACCINATION AND VITAMIN A DISTRIBUTION COVERAGE, NORTHERN TURKANA DISTRICT, KENYA, FEBRUARY 2004 (OXFAM, 02/04)

Measles vaccination coverage (%)*	Vitamin A distribution coverage within the last 6 months (%)
<b>EASTERN ZONE OF TURKANA DISTRICT</b>	
83.3	45.4
<b>WESTERN ZONE OF TURKANA DISTRICT</b>	
66	38.6

TABLE 9 NUMBER OF MEALS TAKEN, NORTH-EASTERN TURKANA DISTRICT, KENYA, FEBRUARY 2004 (OXFAM, 02/04)

Number of meals the day prior to the survey	Normal times	At the time of the survey
No meals	0	19
1 meal	20	65
2 meals	35	6
3 meals	45	10

FIGURE 3 ACUTE MALNUTRITION, KAKUMA CAMP, TURKANA DISTRICT, KENYA



### PRECARIOUS NUTRITION SITUATION IN THE NORTH-WESTERN ZONE OF TURKANA DISTRICT

A survey done at the same time as in the eastern part of Turkana district (see above), showed a precarious situation but which had not deteriorated since 2003 (OXFAM, 02/04). **The prevalence of acute malnutrition was 16.8% (14.5-19.4) including 1.8% (1.1-2.9) severe acute malnutrition in February 2004, 18.9% in March 2003 and 11.4% in February 2002.** The same factors as for the eastern part of the district may explain the deterioration of the nutrition situation compared to 2002. Mortality rates were also lower than in the eastern part of the district; CMR and <5 MR were respectively 1.5 /10,000/day and <5 MR were respectively 1.2 /10,000/day. Measles vaccination and vitamin A coverage were low (table 8).

Most of the population was pastoralist or urban/semi-urban. The number of meals has decreased when compared to "normal times" but to a lesser extent than in the eastern zone. The proportion of income from livestock has decreased in both groups whilst the proportion of income from petty trade has increased. The sale of wild food has also widely decreased, which may be due to scarcity or an increase in consumption.

The Kakuma refugee camp, hosting about 80,000 people and the humanitarian Operation Life Line Sudan headquarters are situated in this area. It is thought that the activities and trade opportunities they offer, may partly explain why the nutrition situation has deteriorated less than in the eastern part.

### Worsening nutrition situation in Kakuma refugee camp, Turkana district

Kakuma refugee camp was set up in 1992 and hosts mostly Sudanese refugees (about 60%), Somali refugees (about 35%) and a small number of people from the Great Lakes. In December 2003, the camp was hosting about 87,000 people. Although the movement of the refugees and the employment opportunities outside the camps are restricted, some refugees manage to get incomes. The better-off also receive remittances from abroad. The poorest refugees are those who can not secure regular and significant incomes (35-45% of the refugees). Most of the refugees are highly dependant on international aid. The relation with the local population is tense and riots occur regularly.

The refugees are meant to receive a full food distribution (2,168 Kcal/pers/day), but the ration actually distributed is often lower due to frequent pipeline breaks. The distribution of CSB, which should supplement the ration in micro-nutrients is often reduced or omitted. The nutrition situation is regularly followed with an annual nutrition survey. The situation has remained above acceptable levels for years (figure 3). **The last nutrition survey carried out in December 2003 showed a significant deterioration of the situation compared to 2002 (figure 3) (IRC, 12/03).**

During this survey, the haemoglobin status of 270 children aged 6-59 months was measured. Results showed appalling rates of anaemia

TABLE 10 ANAEMIA AMONG 6-59 MONTH OLDS, KAKUMA REFUGEE CAMP, DECEMBER 2003

Mild anaemia (%) (Hb 7-11 g/dL)	Moderate anaemia (%) (Hb 5-7 g/dL)	Severe anaemia (%) (Hb < 5 g/dL)	Total anaemia (%) (Hb < 11 g/dL)
76.5	14.7	3.3	94.5

(table 10), which have worsened when compared to the results of April 2001 when already 61.3% of the children were considered anaemic (Hb < 11 g/dL). At the time the survey was written, the measurement of haemoglobin was repeated in order to verify these high rates of haemoglobin deficiency.

The measles vaccination and vitamin A distribution coverage, according to cards and mothers' statement was 74.3% and 40.4%, respectively.

A small percentage of the families (about 2%) seemed not to be registered for the general food distribution.

Around 55% of the mothers interviewed during the survey reported having received counselling on breast-feeding. Some 62% of the mothers said they know that mothers can transmit HIV to their children.

The nutrition situation of the refugees seems to be comparable with that of the host population in the same regional zone (see above).

The insufficiency of aid provided may partly explain the rise in malnutrition. Although interactions between refugees and the host population are restricted, interactions exist and the actual food insecurity faced by the host population may also have some implications for the refugees.

## Overall

Turkana district is chronically food insecure and households' livelihoods have been eroded over the years. In some areas such as the northeast, coping mechanisms are limited and the food security and nutrition situation has worsened within the past two years (category I); the prevalence of acute malnutrition has increased threefold between 2001-2002 and 2003-2004. In the northwest part of the district, the situation has also

worsened but to a lesser extent (category II). The nutrition situation in Kakuma refugee camp is above acceptable levels (category II).

## Recommendations

*From the OXFAM survey in the Turkana district*

Eastern zone

- Distribute immediately a full food ration to a minimum of 70% of the affected population for up to three months
- Include a blanket supplementary food distribution to the general ration for at least all the under-five children and consider implementing it for all the under-12 year olds
- Include a blanket food distribution for all women of reproductive age, as 70% are considered to be either pregnant or lactating
- Support the existing health facilities in the treatment of severe malnutrition

Eastern and western zones

- Support vitamin A distribution and measles vaccination
- Follow the food security and nutrition situation closely
- Implement school feeding programmes in all schools
- Implement long-term programmes aimed at supporting livelihood recovery
- Enhance existing conflict resolution and peace building

*From the IRC survey in Kakuma*

- Identify underlying determinants of malnutrition
- Strengthen community support systems
- Step up vitamin A supplementation programme

## Somalia

The final round of peace-talks was due to begin at the end of May 2004 (IRIN, 25/05/04). The security situation is still tense, especially in Mogadishu, Gedo region and Sool plateau.

### **Deyr cereal production performance**

The *Deyr* cereal production was considered normal but was 28% lower than in 2001 and 41% lower than in 2002. The production was especially affected by poor rains in Bakol, Hiran, Lower Juba and Middle Shabelle (table 11). The 2003 *Gu* production, which is the main harvest, had also been poorer than in 2002 (see RNIS 43).

TABLE 11 *DEYR CEREAL PRODUCTION PERFORMANCE* (FSAU-FS, 02/04)

Regions	% change in cereal Production: 2003/2004 vs post war average (1995/2002)
Bakol	-76%
Bay	14%
Gedo	76%
Hiran	-55%
Lower Juba	-51%
Lower Shabelle	2%
Middle Juba	-10%
Middle Shabelle	-8%
Total	0%

### **Mitigation of the nutrition situation of IDPs in Mogadishu**

A rapid nutrition assessment was conducted in six IDP camps (Coca-Cola, Dhkajo, Stadium, Fardowsa, Shabelle and Arsjsisagoor) in Mogadishu in April 2004 (FSAU-N, 05/04). **The results of the MUAC screening showed a precarious situation: of 515 12-59 month-olds screened, 3 had oedema (0.5%), 5 had a MUAC < 11 cm (0.9%) and 70 had a MUAC < 12.5 cm (14.5%).**

Although the different assessments which have been carried out over the past years in the IDP camps are not directly comparable, because they were not done in the same camps, they do indicate that the percentage of malnourished

children was lower in April 2004 than in August 2002 when 39% of the children had a MUAC < 12.5 cm (see RNIS 39), and is within the same range as in 2000, when 16.5% of the children had a MUAC < 12.5 cm. The improvement of the situation was partly attributed to the implementation of a regular food distribution by WFP and Islamic organisations (FSAU/N, 05/04).

### **Acceptable nutrition situation in Belet Weyne town, Hiran region**

The nutrition situation seemed acceptable in Belet Weyne town according to a nutrition assessment carried out in April 2004 (FSAU-N, 05/04). **Among 919 12-59 month-olds screened, 45 (5%) were considered moderately malnourished (MUAC < 12.5 cm and/or oedema), including 6 (0.8%) considered severely malnourished (MUAC < 11 cm and/or oedema). This shows an impressive improvement compared to September 2002, when a similar kind of screening had found that 25% of the children were considered acutely malnourished (see RNIS 39).**

The acceptable nutrition situation was attributed to the fact that the food security situation was good for the better-off and middle wealth groups who had several sources of income such as business, livestock and livestock products, skilled employment and remittances from abroad. It is thought that the poorest cope through social support, loans and change in diet pattern, despite increased food prices and limited income opportunities.

### **Worsening situation in Jilib and Buale riverine areas, Middle Juba**

Several reports have highlighted the dire situation which the riverine population of the Juba valley faces, especially during the summer months when the situation is near a famine stage (see RNIS 43 and NICS 1).

Food security seems to have decreased this year (FSAU-FS, 05/04): the 2003/2004 crops were only 55% of post-war average; the drought has reduced availability of fish and wild food; and work opportunities were scarce. Moreover, food prices were very high in the area as of March, and insecurity prevailed.

MSF-H reported an increase in admission to the therapeutic feeding centre in March; 70%

of the children admitted to the TFC had oedema. Several agencies have planned to reinforce the current relief and development programmes. In addition to the therapeutic feeding programme, support to health care and capacity-building initiatives, plans were made for the implementation of supplementary feeding programmes, food distribution and longer-term food security interventions (FSAU-N, 04/04).

### Persistent dire situation in Gedo region

Food security in northern Gedo has gradually deteriorated partly due to insecurity. Recent renewed fighting in the area has led to new population displacement. A MUAC screening undertaken in April 2004 (FSAU-N, 04/04) showed that Belet Hawa district was the most affected district, with 27.1% of the children (12-59 months) screened considered acutely malnourished (MUAC < 12.5 cm and/or oedema) whilst the percentage of children considered acutely malnourished was 15.2%, 15.1% and 10.9% in Luuq, Dolow and Elwak districts, respectively.

### Continuing food insecurity in Northern and Central Somalia

The Gu rains started in April but were inadequate. Death of livestock and rising destitution continue. As of March 2004, it was estimated that of an estimated 927,000 people in Lower Nugal, Togdheer, Central region and Sool re-

gion, 123,000 were affected by a livelihood crisis (most of them in Togdheer) and 95,000 were experiencing a humanitarian emergency (65,000 in Sool region and 30,000 in Lower Nugal) (FSAU-FS, 03/04). As of February 2004, there was a gap between the needs and the response.

The third round of nutrition screening in the sentinel sites in Sool plateau, which was done in April 2004 showed a worrying situation, but which seemed to have slightly improved compared to January 2004 (table 12). On the other hand, the nutritional status of women seemed to have worsened (table 12).

A random-sampled nutrition survey carried out in Garowe, south Gardo and Burtinle districts, Nugal region in March 2004 showed a situation of concern: the prevalence of acute malnutrition was 15.9% (12.7-19.6) including 3% severe acute malnutrition (1.7-5.1) (FSAU-N, 05/04). This rate seems to be higher than malnutrition rates generally recorded in Puntland (less or around 10%).

### Overall

The Northern and Central region of Somalia are especially at risk (category II). Riverine areas of Buale and Jilib districts need immediate intervention (category I) to alleviate the food insecurity and prevent a further deterioration of the nutritional status.

TABLE 12 NUTRITION SITUATION IN SOOL PLATEAU, SCREENING IN SENTINEL SITES (FSAU-N, 05/04)

6-59 month old children		Women of reproductive
Acute Malnutrition (%)	Severe Acute Malnutrition (%)	MUAC < 21 cm
DECEMBER 2003		
18.9	3.8	17
JANUARY 2004		
21	5.7	23
APRIL 2004		
15	1.9	33



## Sudan

A new accord was signed between the government of Karthoum and the Sudan People's Liberation Movement/Army (SPLM/A) regarding power-sharing and the resolution of conflict in Abyei, Southern Kordofan/Nuba mountains and Blue Nile states (IRIN, 28/05/04). Three protocols on the status of the South (six year period of autonomy, followed by a referendum), on security arrangements during the interim period and on wealth-sharing, had been signed at the beginning of the peace talks. It is expected that a comprehensive peace-agreement will be signed within the coming months.

The conflict in Darfur was not part of the peace protocols and separate peace talks have been conducted in Chad between the government of Karthoum, the Sudan Liberation Movement/Army (SLA) and the Justice and Equality Movement (JEM). A cease-fire agreement was signed on the 8 April for a renewable period of 45 days (AFP, 08/04/04). However, continuous violence has been reported on the ground.

## Dire humanitarian situation in Darfur

Violence and human rights violations have been raging in Darfur for months. According to a mission led by the Office of High Commissioner for Human Rights, there have been frequent reports of killings with men and boys especially targeted, and of sexual violence; a climate of impunity has prevailed (UNCHR, 07/05/04). Attacks of the *Janjawee*, Arab militias who launch raids on villages, have led to killings, violence and destruction of villages, water and food reserves (ICG, 16/05/04). There is also a need for better protection of IDPs, who face a greater risk of attacks after the delivery of humanitarian assistance (UNCHR, 07/05/04).

It is estimated that more than one million people are displaced throughout Darfur (570,000 in West Darfur, 290,000 in North Darfur and 140,000 in South Darfur) (UNICEF, 19/05/04). Some settled with host families whilst other gathered in camps (see map).

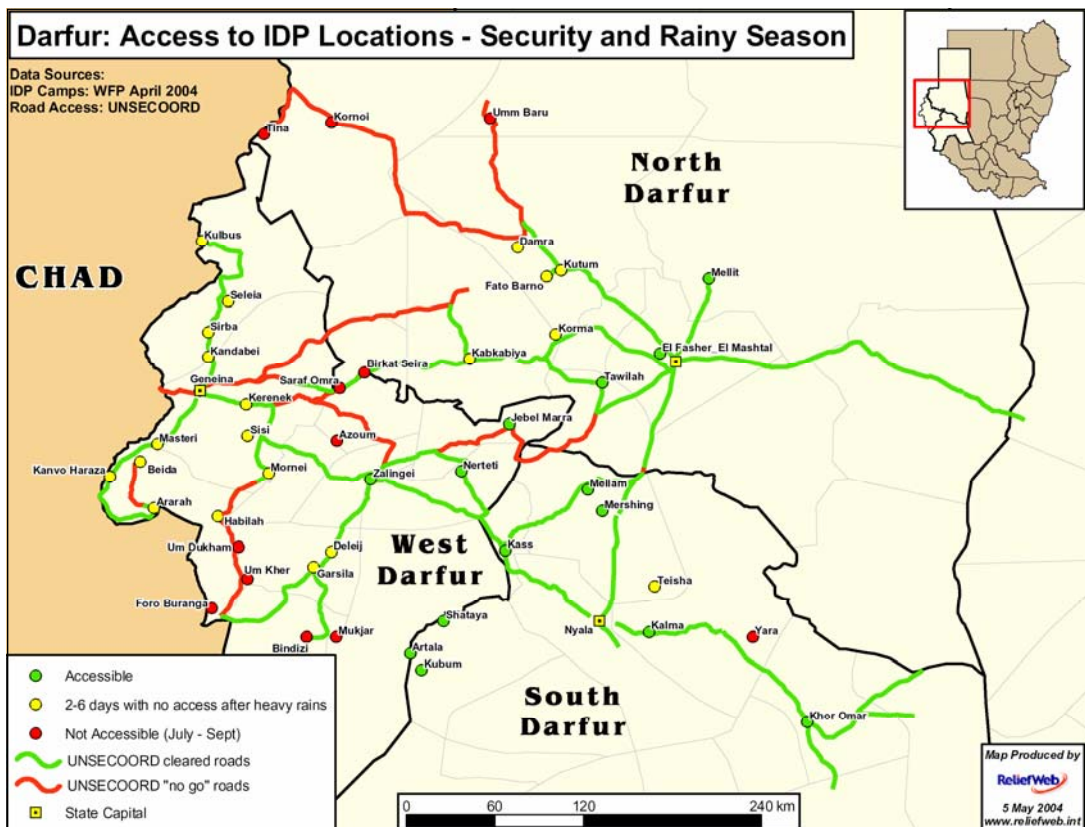


TABLE 13 PREVALENCE OF ACUTE MALNUTRITION, MEASLES IMMUNISATION COVERAGE AND MORTALITY RATES, DARFUR REGION, SUDAN (SC-UK, 03/04; MSF-H, 04/04)

	Date	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Measles immunisation coverage (%)*	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
Kutum town, Kutum province, North Darfur	Mar-04	12.6 (10.1-14.9)	0.8 (0.2-1.3)	87.1	-	2.05
Wade Saleh & Mukjar provinces, West Darfur	Apr-04	21.5 (18.5-23.9)	3.2 (1.9-4.2)	67.0	3.6	5.2

\* According to cards and mothers' statements

There are reports of the willingness of the government of Karthoum to forcibly return IDPs to their home areas (USAID, 21/05/04). Access to the population is extremely difficult because of the logistic and security conditions but also owing to the restrictions imposed by the government of Karthoum, such as the requirement of special travel permits for humanitarian workers (USAID, 21/05/04). However, the government of Karthoum announced at the end of May 2004 that they will ease access to humanitarian workers (IRIN, 21/05/04); as of 20 May 2004, there were 116 humanitarian workers waiting for an entry visa or travel permits (UNRC, 20/05/04).

WFP reported restrictions on the partnership for food distribution: the government of Karthoum has ordered that only national NGOs are authorised to distribute food, not international NGOs (UNRC, 25/05/04).

ICRC reported that access to the population has improved but could be better (AFP, 25/05/04).

The availability of non-food items is inadequate to cover all the needs (USAID, 21/05/04). Availability of clean water and sanitation equipment is also reported as being scarce (OXFAM, 25/05/04).

The rainy season, which starts by mid-year and coincides with the hunger gap, will further worsen the situation because of the decreased availability of food, increased risk of diseases such as malaria and diarrhoea and more difficult access to the population (OXFAM, 25/05/04) (see map).

BOX 2 FOOD SECURITY INDICATORS IN WADE SALEH AND MUKJAR PROVINCES, WEST DARFUR (MSF-H, 04/04)

Most of the households were unable to fully harvest in 2003, due to insecurity  
 High loss of livestock (70-90%)  
 Increase in cereal prices by 100-150%  
 Reduction in quantity and quality of the diet  
 The support of the host community becomes exhausted

*Major sources of food*

Own production and livestock before the conflict vs market and relief at the time of the survey  
 Only two distributions in February and April and food aid was not a significant source of food

*Sources of income*

Switch from sale of crops and animals prior to the crisis to petty trade (grass, firewood, bricks) at the time of the survey  
 Expenditures were mostly for food (75%), soap, kerosene and debts at the time of the survey, whilst they were wider before the war: clothing, domestic assets, medicines, education

Two surveys were conducted in Kutum town, North Darfur and Wade Saleh and Mukjar provinces, West Darfur, in March and April 2004, respectively (SC-UK, 03/04; MSF-H, 04/04). In both surveys, IDPs represented the majority of the households surveyed: 89% and 75%, respectively. **The nutrition situation and the under-five mortality rates were of concern in Kutum town and were serious in Wade Saleh and Mukjar provinces (table 13).**

Kutum town was not accessible between November 2003 and January 2004. Some of the IDPs were living with relatives or in abandoned houses; the majority have gathered in an area in the town where they lack basic facilities. The main source of food was relief food for the majority of the households (87%), whilst the others relied on market (10%) or on their



own production (2%).

In Wade Saleh and Mukjar provinces, morbidity was especially high: 85% of the children had been ill in the two weeks prior to the survey; major illnesses were diarrhoea (47%) and cough (28%). The food security situation has significantly deteriorated compared to before the crisis and people relied on coping mechanisms which were, however, limited (box 2).

### Internally Displaced People in Kassala state

Kassala state hosts both refugees, mainly from Eritrea, and displaced people; it is estimated that around 54,600 IDPs are settled in official camps. A nutrition survey was carried out in these camps by Goal in February 2004 (Goal, 02/04). The sources of income of the IDPs were mainly agricultural daily labour, wood cutting and charcoal production. Some were able to cultivate on residents' land or on small plots adjacent to the camps. The survey revealed an uncertain nutrition situation: **12.1%**

**cluding 0.8% severely malnourished.** Only one child had oedema. The nutrition situation was nevertheless slightly better than in 2002 and 2003 (figure 4).

The measles vaccination coverage proved by cards was 55.5% and was 75.5% when mothers' statements were also taken into account. A measles vaccination and vitamin A distribution campaign had been conducted in January 2004 in Kassala state; according to the survey, 96% of the children had received vitamin A.

Food distribution was reported as being irregular and has been halted since December 2003 for those IDPs who arrived the earliest and halved for the newly arrived IDPs.

Child feeding practices were sub-optimal.

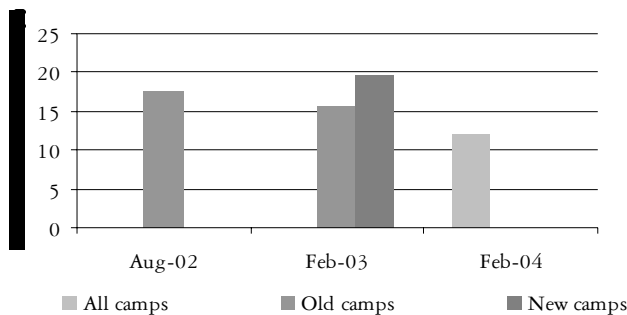
### Improved situation in some areas of southern Sudan, whilst others remain at risk

Despite the signing of a new accord between the government of Karthoum and the SPLM/A, there are increasing reports of local conflicts over access to grazing land, resources and cattle, which have led to population displacements, especially in the lakes area of Bahr el Ghazal (IRIN, 19/05/04).

It seems that new restrictions have been imposed by the Sudan Relief and Rehabilitation Commission (SRRC), the SPLM/A's humanitarian wing, on humanitarian work, such as new taxes and work permits for expatriates. The SRRC would like to promote the employment of Sudanese workers; this may cause difficulties, considering the low level of education in southern Sudan (IRIN, 28/05/04).

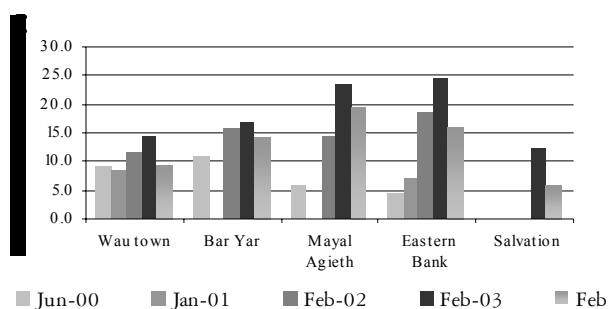
An Ebola outbreak began in Yambio county, Western Equatoria; 19 cases have been identified as of 24 May 2004 (AFP, 24/05/04).

FIGURE 4 PREVALENCE OF MALNUTRITION, IDP CAMPS IN KASSALA STATE, SUDAN



**of the children were acutely malnourished, in-**

FIGURE 5 PREVALENCE OF ACUTE MALNUTRITION, WAU TOWN AND IDP CAMPS, SUDAN



### WAU TOWN AND IDP CAMPS

Wau town has been a Government of Sudan enclave for the past 20 years. The town remains extremely isolated. In case of insecurity or a food gap, people from nearby villages seek refuge in the IDP camps, located in the outskirts of the town. Surveys were conducted in Wau town and in the surrounding IDP camps in February 2004 (ACF-F/joint, 02/04). The results revealed worrying rates of malnutrition, especially in some camps (figure 5). However, the situation seemed to have slightly

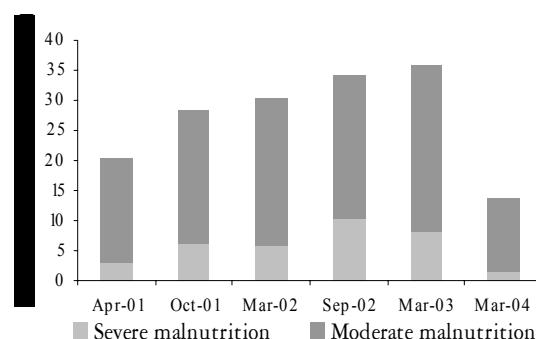
improved compared to 2003, when a new wave of displaced people had arrived in the area because of high food insecurity in rural areas (figure 5). Under-five mortality rates were below alert thresholds.

The decision of WFP to halt free food distribution to IDPs since December 2003 and to replace it by food for rehabilitation or food for training causes concern given the current unacceptable nutrition situation in some of the camps. This newly established type of food distribution should ensure that the IDPs can meet their nutritional requirements.

### OLD FANGAK, UPPER NILE

The nutrition situation seemed to have greatly improved in Old Fangak district (table 14, figure 6) (AAH-US, 03/04). The same pattern was observed in Atar area (table 14) (AAH-US, 11/03). The food security was good in these areas in 2003, owing to good rainfall, few security incidents and on-going food distributions and humanitarian programmes.

FIGURE 6 PREVALENCE OF ACUTE MALNUTRITION, OLD FANGAK, SUDAN



### GUMRIAK, MAREANG AND NYADIN, UPPER NILE

On the other hand, the nutrition situation was poor in Gumriak, Mareang and Nyadin districts (table 14) (AAH-US, 10/03). This was attributed to floods and locusts which damaged the crops. **Mortality rates were incredibly high (table 14); major causes of death were diarrhoea, bloody diarrhoea, measles and lower respiratory infection.**

TABLE 14 PREVALENCE OF ACUTE MALNUTRITION, MEASLES IMMUNISATION COVERAGE AND MORTALITY RATES, SOUTH SUDAN (AAH-US, 09/03-02/04)

	Date	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Measles immunisation coverage (%)*	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
Old Fangak district, Upper Nile	Feb-04	14.0 (10.6-18.1)	1.7 (0.7-3.8)	21.7	1.27	-
Kapoeta district, Eastern Equatoria	Jan-04	19.1 (15.2-23.5)	3.5 (2.0-6.1)	10.6	1.48	3.44
Atar, alam, Piji & Duk districts, Upper Nile	Nov-03	12.1 (9.3-15.6)	0.7 (0.1-2.1)	6.2	0.86	1.49
Nyadin district, Upper Nile	Oct-03	19.4 (15.6-23.7)	6.0 (4.0-9.0)	12.8	5.4	7.8
Mareang district, Upper Nile	Oct-03	17.8 (14.4-21.8)	4.9 (3.1-7.5)	12.3	5.4	8.4
Gumriak district, Upper Nile	Sep-03	15.7	4.6	39.5	3.9	13.0

\* According to cards and mothers' statements

**KAPOETA, EASTERN EQUATORIA**  
In Kapoeta district, Eastern Equatoria, the nutrition situation was also of concern due to food insecurity owing to bad rains (table 14) (AAH-US, 01/04). Mortality rates were also high; the main causes of death were diarrhoea and fever.

## Overall

The situation in Darfur remains at high risk (category I) and may worsen with the onset of the rainy season. On the other hand, due to an improvement in food security and security conditions, the situation has greatly improved in part of south Sudan but remains precarious (category II) whilst the situation remains serious in other parts which experienced bad weather conditions (category I). IDPs and the local population will require humanitarian and development action as long as the situation is not consolidated on the ground.

## Recommendations

*From the MSF-H survey in Western Darfur*

- Ensure a regular food distribution
- Implement a blanket supplementary food distribution to under-fives, pregnant and lactating women
- Implement a supplementary feeding programme targeted at malnourished children
- Support the health facilities
- Carry out a measles vaccination campaign
- Distribute plastic sheeting and blankets

*From the SC-UK survey in Kutum town, Northern Darfur*

- Continue providing a general food distribution
- Support health facilities
- Provide protection to the IDPs
- Distribute non-food items

# West Africa



## Guinea

Guinea still hosts about 110,000 refugees in seven camps (see NICS 1) and an additional 70,000 refugees outside camps. UNHCR's repatriation programme for Sierra Leonean refugees resumed in January 2004 and is due to end in June 2004 (AFP, 04/05/04). About 6,000 refugees are still settled in camps. UNHCR has planned to stop material aid to Sierra Leonean refugees by June 2004 (AFP, 04/05/04). However, some refugees are reluctant to return because they want to harvest in

Guinea before returning or because they think that living conditions in Sierra Leone are not satisfactory (OCHA, 20/02/04).

An evaluation carried out by the URD group in Guinea at the end of 2003 raised positive and negative points regarding the situation in the refugee camps and the impact of the establishment of the camps on the host population (URD, 12/2003) (box 3).

Box 3 POSITIVE AND NEGATIVE POINTS IN AND AROUND THE REFUGEE CAMPS, GUINEA, DECEMBER 2003 (URD, 12/03)

REFUGEE POPULATION	
<i>POSITIVE POINTS</i>	<i>NEGATIVE POINTS</i>
<b>Food security</b>	
Regular food distributions	Distributed food does not fit feeding habits
Exploitation of swamps	Because of a lack of cash, people need to sell part of their food ration
Implementation of income generating activities	Insufficient training to go with the income-generating activities has sometimes led to some people getting into debt
Identification of vulnerable people on the arrival of refugees at the camps	
<b>Public health</b>	
Good access to health care	Bad living conditions in transit camps
Good access to potable water and good sanitation	
<b>Social environment</b>	
Average security environment	The fear of refugees of repatriating not taken into account enough
Education and alphabetisation programmes	
<b>Delivery of assistance</b>	
Good collaboration between refugee committees and aid organisations	
<b>HOST POPULATION</b>	
<i>POSITIVE POINTS</i>	
<b>Food security</b>	
Food distribution in 2002	Rising of food prices, especially rice
Implementation of income-generating activities	
<b>Public health</b>	
Access to health care in the camps	
Improvement of access to water and sanitation	
<b>Social and ecological environment</b>	
Good relationships with some aid organisations	Several problems regarding the implementation of the camps: not enough dialogue with the local population, compensation for the parcels not always given
Camp infrastructures will be used by the local population after refugee departure	
Improvement of road conditions	
Re-afforestation	Massive de-forestation
<i>NEGATIVE POINTS</i>	

## Ivory Coast

Peace accords have suffered a set-back within the recent months. A march organised by the rebels and opposition parties and which was officially banned took place in Abidjan on the 25<sup>th</sup> of March 2004 and degenerated into violence (IRIN, 25/03/04). The rebels and opposition parties suspended their participation in the government shortly thereafter.

### BOX 4 FACTORS AFFECTING AGRICULTURAL PRODUCTION IN IVORY COAST (FAO/WFP, 03/04)

**Northern zone, controlled by the *Forces Nouvelles***  
Administrative and technical assistants have left the region  
Most able people have deserted and rural communities lack technical assistance

Most of the youth have enrolled in the rebellion  
Cotton companies have accumulated outstanding payments for cotton purchase, and then farmers lack the means to get agricultural inputs

**Areas of Western zone, controlled by the *Forces Nouvelles***  
Massive population displacements due to violent attacks  
Late return of the population  
Difficult resumption of production activities  
Spread of the conflict between communities with renewed displacements

**Buffer zone**  
Large concentration of IDPs  
Strong pressure on food reserves and seed stocks  
Agricultural assistance from the government, UN agencies and NGOs

**Southern zone, controlled by the government**  
Farm population mostly in place  
Arrival of IDPs  
Pressure on food reserves and seed stocks  
Normal technical assistance activities  
Agricultural assistance from the government, UN agencies and NGOs

**Southwest zone, under government control**  
Some villages have been repeatedly attacked  
Presence of Liberian refugees  
Little resumption of agricultural activities  
Displacement of migrant population  
Lack of labour for food and cash crops

A report on the events around the 25 March's march, led by the Office of the United Nations High Commissioner for Human Rights, said that at least 120 people were killed, 20 disappeared and 274 were injured. There was also evidence that some community groups were specially targeted, i.e. individuals from the north of the country or from neighbouring countries (UNSC, 13/05/04).

In protest against this report, demonstrations and sit-in have been organised by the *Jeunesse Patriote*, loyal to president Gbagbo (OCHA, 17/05/04); it also seems that a UN convoy was stoned (WFP, 21/05/04).

On 27 February the UN Security Council agreed to create a 6,240-strong peacekeeping force for Ivory Coast (UNSC, 27/02/04); the peacekeeping force had about 2,000 troops as of May 2004.

Violent ethnic clashes still continue in the west of the country where at least 3,000 people were displaced in May 2004 (WFP, 21/05/04). There are still several hundred thousands of displaced people and an estimated 75,000 refugees.

### Decline in agricultural production

According to the FAO/WFP crop and food supply assessment mission, conducted in November/December 2003, food crop, cash crop and animal production was reduced in 2003 compared to previous years (table 15) (FAO/WFP, 03/04). The decline in production may be attributed to the displacement of population, the lack of labour which resulted from it, the lack of agricultural services in parts of the country and the disruption to access to markets because of insecurity and levies at roadblocks. These factors are present to a greater or lesser degree, depending on the area (box 4).

### Nutrition situation under control in Bin Houye and Zouan Hounien *sous-préfectures*, Danane department, west Ivory Coast

Zouan Hounien is an area controlled by the force loyal to President Gbagbo, as is Bin Houye, apart from the north which is under the responsibility of the peace-keeping force. A lot of people fled the area at the end of 2002 but began to return in May/June 2003. The

TABLE 15 FOOD CROP, CASH CROP AND ANIMAL PRODUCTION PROSPECTS FOR 2003/2004, COMPARED TO PREVIOUS YEARS (2002/2003 FOR FOOD CROPS, 2001/2002 FOR CASH CROPS), IVORY COAST (FAO/WFP, 03/04)

Ground nuts	Food crops					Cash crops				Livestock and fish
	Rice	Maize	Sweet potatoes	Cassava	Plantain	Cocoa	Coffee	Cotton	Palm oil	
- 20.3	- 13.2	- 11	-8.6	-6.3	-6.0	-30	-35	- 10	-10	- 10 to 20

main source of income before the crisis was cash crops, and especially coffee. Cash crop cultivation has been badly affected by the crisis but people have been able to cultivate cassava, maize, swamp rice and vegetables. A few irregular food distributions have taken place. The health system is supported by NGOs; two supplementary feeding centres are in place and severely malnourished children are referred to a therapeutic feeding centre in Man.

A random-sampled nutrition survey was conducted in December 2003 in a 10 km radius from the two supplementary feeding centres (ACF-F, 12/03). **The results showed that the situation was under control: the prevalence of acute malnutrition was 4.3% (2.7-6.6), includ-**

**ing 0.5% (0.1-1.8) severe acute malnutrition.**

The measles vaccination coverage was low, with only 23.3% of the children being vaccinated against measles, according to cards and mothers' statements.

## Overall

The political situation is highly volatile. Despite a decrease in food and cash crop production, the food security and nutrition situation remains average (category III) but is fragile. Any degradation of the political situation will put the population at risk.

## Liberia

The security situation has improved in Liberia and humanitarian organisations have had access to a wider part of the country (WFP, 20/05/04). However, security is still perilous, with outbreaks of violence and abuses of civilians, even in the areas controlled by UNMIL (GW, 24/05/04). As of May 2004, UNMIL was at full strength with 15,000 troops deployed throughout the country (UNICEF, 24/05/04).

The Disarmament, Demobilisation, Rehabilitation and Reintegration (DDRR) process resumed on 15 April 2004, in Gbarnga, Buchanan, Tubnamburg and outside Monrovia (UNICEF, 24/05/04). So far, 26,000 fighters from LURD, MODEL and former-government forces have been disarmed and have received the US\$300 resettlement grant (IRIN, 12/05/04); it is however suggested that non-combatants may have also taken part in the process. Cash-payment to demobilised children and adolescents has also raised concerns, as it is thought that the grant will probably not be used for productive investments (RI, 21/04/04).

A national measles vaccination and vitamin A distribution campaign is under-way (UNICEF, 24/05/04).

## Refugees and returnees

An estimated 10,000 Liberian refugees were still in camps as of May 2004. UNHCR intended to stop aid to Sierra Leonean refugees at the end of June and encouraged them to repatriate (UNHCR, 17/05/04).

About 17,000 Liberian refugees have spontaneously returned from neighbouring countries. About 7,000 are settled in two returnee camps in Montserrado county. After registration, they will receive a re-integration package (UNHCR, 18/05/04).

## Internally Displaced Persons

A census, carried out in April 2004 in the 20 official displaced persons camps concluded that there were about 261,900 IDPs in these camps, of whom the majority were in Montserrado county (table 16) (OCHA/UNHCR, 05/04). The report acknowledged that it was difficult to know the exact number of people as there was a lot of movement between the sur-

rounding communities and the camps. The majority of IDPs plan to return to Bong, Lofa and Bomi counties.

TABLE 16 NUMBER OF IDPs IN OFFICIAL IDP CAMPS IN MONTSERRADO, BONG AND MARGIBI COUNTIES, APRIL 2004, LIBERIA (OCHA/UNHCR, 05/04)

Camp	Number of IDPs
Wilson	28,387
Ricks Institute	22,829
Jahtondo	19,013
Blamasse	18,559
Seighbeh	15,281
Soul Clinic	13,742
Perry town	12,608
Mount Barclay	10,469
Plumkor	9,354
Fendell	6,478
New LAnd	4,323
Singhe 3	2,482
<b>Total Montserrado</b>	<b>163,523</b>
Salala	20,370
Maimu 1	18,579
Maimu 2	14,065
Maimu 3	12,176
EJ Yancy	11,809
Tumutu	4,732
<b>Total Bong</b>	<b>81,731</b>
Conneh	9,984
Unification town	6,648
<b>Total Margibi</b>	<b>16,632</b>
<b>Grand total</b>	<b>261,886</b>

### IDP camps in Montserrado county

The nutrition situation was good to average among the IDPs settled in six camps in Montserrado county, according to random-sampled nutrition surveys carried out in November 2003 (table 17) (SC/ACF, 11/03).

TABLE 17 PREVALENCE OF ACUTE MALNUTRITION IN SEVEN IDP CAMPS IN MONTSERRADO COUNTY, LIBERIA, NOVEMBER 2003 (SC/ACF, 11/03)

Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)
<b>SAYGBEH</b>	
3.4 (1.7-6.5)	0.3 (0-2.2)
<b>BLAMASE</b>	
3.8 (2.2-6.2)	1.2 (0.4-2.9)
<b>PLUMKOR</b>	
6.3 (4.1-9.3)	1.5 (0.6-3.4)
<b>RICKS</b>	
6.4 (4.4-9.2)	0.4 (4.4-9.2)
<b>JAHTONDO</b>	
6.6 (4.4-9.7)	0.7 (0.2-2.3)
<b>PERRY</b>	
6.7 (4.1-10.7)	0.4 (0.1-2.4)
<b>WILSON</b>	
7.8 (5.1-11.6)	0.6 (0.1-2.9)

### Greater Monrovia

A random-sampled nutrition survey conducted in Greater Monrovia in November 2003 showed average prevalence of malnutrition (category II) and mortality rates (table 18) (WFP/joint, 11/03). A similar malnutrition rate was shown in a survey carried out in six districts of Monrovia and two IDP camps on the outskirts of Monrovia (VAM, 11/03). The assessment also showed that the food security situation was of concern: on average, households were spending 70% of their income in food, this reached 95% for the IDPs. 40% of the households had no assets, whilst 26% had domestic assets and only 3% had productive assets. The majority of the families (60%) had poor dwelling conditions. Households were relying mainly on petty trading and wage labour and coping mechanisms seemed limited. Morbidity was very high: 75% of the children had been ill within the two weeks prior to the survey.

BOX 5 FOOD SECURITY AND PUBLIC HEALTH IN BOMI AND GRAND CAPE MOUNT COUNTIES, LIBERIA (WV, 03/04)

**FOOD SECURITY**  
**MAIN SOURCES OF FOOD**  
 Purchase (81.6%)  
 Own production (15.2%)

**MAIN SOURCES OF INCOME**  
 Agriculture (49%), palm nut oil, casual work, petty trading

**RELIEF FOOD**  
 6% of the households received food in January and March

**PUBLIC HEALTH**  
**WATER AND SANITATION**  
 39% of the population had access to safe drinking water  
 For 97% of the households, distance to water source was less than 15 mn  
 Sanitary conditions were poor

**MORBIDITY**  
 75% of the children were ill within the 2 weeks prior to the survey  
 Major illnesses were fever (39%) and diarrhoea (8.2%)

**Bomi and Grand Cape Mount counties**

The nutrition situation in Bomi and Grand Cape Mount counties appeared acceptable (category III), according to a random-sampled nutrition survey conducted in March 2004 (table 18) (WV, 03/04). Measles vaccination and vitamin A distribution coverage (77.1%) were satisfactory.

On the other hand, mortality rates within the six months prior to the survey were very high. The main causes of death among those over five year old were war related injury (21%), diarrhoea (20%) and fever (18%), whilst they were diarrhoea (30%), fever (25%) and malnutrition (26%) among the under fives.

About 74% of the families interviewed were resident, 23% were returnees and 3% were displaced.

Food security and public health seemed precarious (box 5).

TABLE 18 RESULTS OF NUTRITION AND MORTALITY SURVEYS, GREATER MONROVIA, BOMI AND GRAND CAPE MOUNT COUNTIES, LIBERIA (WFP, 11/03; WV, 03/04)

	Agency	Date	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Measles immunisation coverage (%)*	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
Greater Monrovia	WFP	Nov-03	6.9 (5.4-8.4)	0.9 (0.2-1.7)	93	0.63	1.13
Bomi and Grand Cape Mont counties	WV	Mar-04	4.1 (2.3-5.9)	0.9 (0.1-1.8)	86.5	2.03	4.93

\* According to cards and mothers' statements

**Sierra Leone**

UNAMSIL mandate has been extended until September 2004 and a residual force will probably remain till June 2005 (OCHA, 12/05/04). The security situation is calm but inflation is still on the rise (OCHA, 12/05/04). Some 7,400 refugees have been repatriated from Guinea (6,276) and from Liberia (1,175) by UNHCR since the resumption of the repatriation programme in January 2004 (OCHA, 12/05/04).

However, there are some weaknesses in the reconstruction process. According to the URD group, there is still a strong presence of humanitarian organisations during this rehabilitation phase, as was the case during the crisis, and some creative programmes are being implemented (URD, 12/03). On the other hand, UNHCR's assistance to the returnees seems limited, there is a lack of housing programmes and the funding of the rehabilitation of the health system is insufficient.



# Central Africa

## Burundi

The security situation is still calm throughout the country, except in Bujumbura rural, which is the stronghold of the FNL (National Liberation Forces), the only rebel movement which has not signed a peace agreement with the government (AFP, 06/05/04; USAID, 14/05/04). Clashes in Bujumbura rural caused the displacement of at least 50,000 persons in April and May (IRIN, 17/05/04). Despite the FDD (Forces for the Defence of Democracy) having signed a peace agreement with the President of Burundi at the end of last year, they have withdrawn from the transitional government, protesting against the slow process in the nomination of governorships, administrators and ambassadors (USAID, 14/05/04).

## Internally Displaced Persons

The number of displaced persons settled in camps has halved compared to 2002.

A survey counted about 140,000 IDPs in displaced camps in 2004, compared to 281,000 in 2002 (OCHA, 14/05/04). According to Refugee International (RI), IDPs are vulnerable but receive little attention (RI, 28/04/04).



## Congolese refugees

Some 4,500 Congolese refugees were moved from a transit camp near the border to a safer camp in Muyinga province, where 4,000 Congolese refugees were already settled (IRIN, 17/05/04). The Government of Burundi estimates that there are about 40,500 Congolese refugees in Burundi.

## Returnees face challenges

More than 40,700 refugees returned from Tanzania so far this year (see map); about 176,000 refugees have returned since 2002 (UNHCR, 18/05/04). However, the return of the refugees raise a number of issues, regarding their conditions of departure from Tanzania as well as their conditions of return. The mounting pressure on Burundian refugees to leave Tanzania camps was denounced by Refugee International (RI, 14/04/04). For about one year, the restriction of movement has been reinforced (see RNIS 42); refugees are not allowed to move further than a four kms radius from the camps. Those who are caught outside this limit are arrested and deported to Burundi. When they arrive at their destination, returnees face a number of challenges (IRIN, 14/04/04; IRIN, 15/04/04). First of all, housing is a high priority, as most of the refugees' houses have been destroyed; some housing programmes are on-going. Secondly, they have to get their fields back; in some cases, their lands have been used or sold. It seems that there is an increasing number of disputes over land and an increase in the price of land. The agricultural situation of families who returned one year ago remains critical as compared to families who have not moved. The principal limitations the returnees face are insufficient banana and cassava shoots, exhausted land, loss of revenue from cash crops, little access to agricultural inputs such as fertilisers and tools (IRIN,

RETURNEES FROM TANZANIA

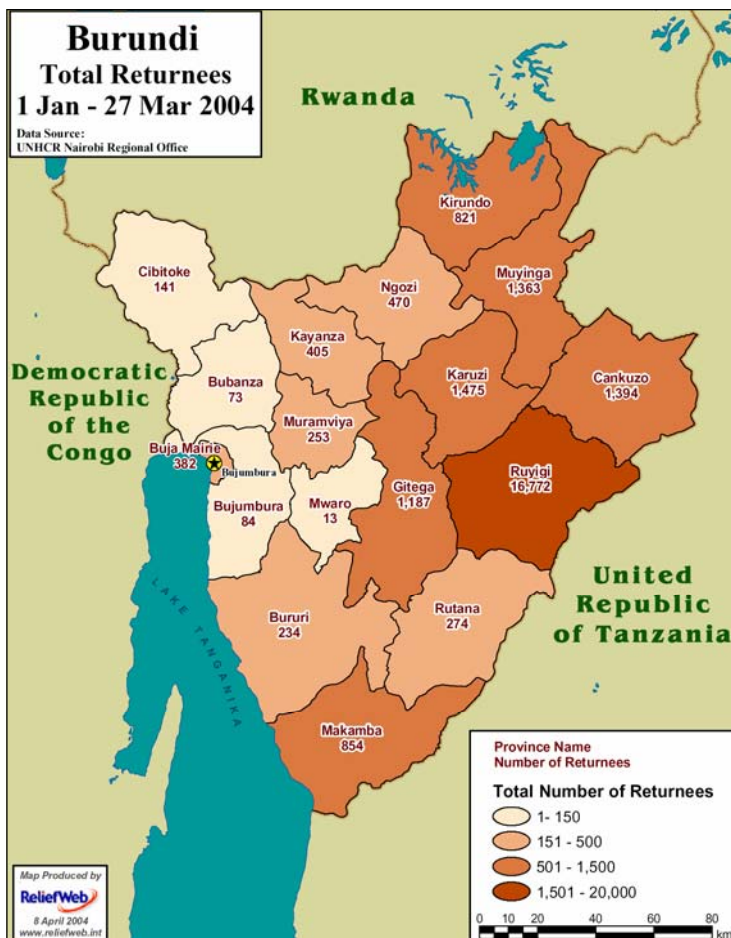
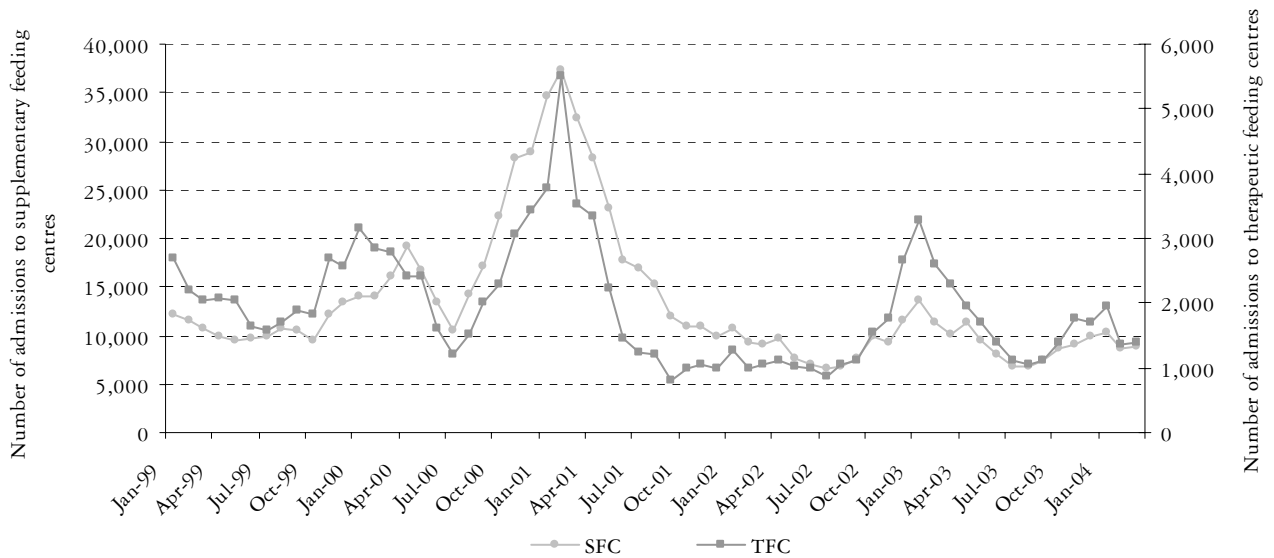


FIGURE 7 ADMISSIONS TO THERAPEUTIC FEEDING CENTRES (TFCs) AND SUPPLEMENTARY FEEDING CENTRES (SFCs), BURUNDI (UNICEF-B, 04/04)



14/04/04). On their return, families are highly dependent on their relatives or neighbours, especially for housing and food.

Returnees benefit from a three-month food package, which seems to last less than that because it is shared with the host community or sold to get cash. When their food stock is exhausted, they mainly depend on the host community. Returnees also receive non-food items on their arrival and agricultural inputs if they are registered by the local administration.

Health care and education are other challenges that face returnees but also Burundians who did not move. The health and education system was already stretched before the returnees add a further pressure on the infrastructure.

The cost-recovery system has been implemented in most part of the country (see below); it seems however, that returnees can obtain "certificates of poverty" to receive free treatment (IRIN, 14/04/04).

Moreover, Refugees International warns that large-scale repatriation could threaten peace (RI, 12/04/04). According to RI, Burundi is not politically stable enough, the infrastructure is too weak and the UNHCR's capacity to protect refugees is insufficient, for promoting large-scale repatriation.

RI also states that refugee return seems highly-linked with political considerations both in Burundi and Tanzania: the CNDD/FDD in Burundi is calling for the speedy return of the refugees to increase their chance of winning

the next elections at the end of 2004. In Tanzania, the ruling party has promised that all the refugees will have returned home before the next election due at the end of 2005 (RI, 12/04/04).

### Average nutrition situation

The number of admissions to feeding centres since the beginning of the year has been lower than in 2003 (figure 7) (UNICEF-B, 02/04-04/04). The highest number of admissions was in Bujumbura rural, which accounted for about 25% of the whole admissions. Bujumbura Mairie, Bururi, Cankuzo and Muramviya had the lowest number of admissions.

### High mortality rates and low access to health care

MSF-B conducted a random-sampled nationwide mortality survey and different assessments aiming at describing access to health care (Bujumbura Mairie was excluded) (MSF, 04/2004). For the purpose of the health surveys, the total population of Burundi was divided in three categories depending on the type of health care they can access. **The results of these surveys were appalling; mortality rates stood well above the alert thresholds in each of the area surveyed. CMR were 1.2/10,000/day (0.8-1.6), 1.6/10,000/day (1.2-2.0) and 1.9/10,000/day (1.4-2.3) depending on the area surveyed and the < 5 MR was 3.3/10,000/day (2.0-4.6), 4.9/10,000/day (3.4-6.3) and**

3.1/10,000/day (2.3-4.0).

The main cause of death was malaria. A cost-recovery system was put in place in Burundi at the beginning of 2002; about 80% of the population of the country fell under it, whilst the others have access to health centres applying a flat fee or a cost-sharing system (50% of the price of medicine). The survey revealed that the frequentation of the health centres applying the cost-recovery system has decreased since this system was applied. Moreover, 17% of the population has no access to health care, mainly owing to financial reasons and about 80% of the people who have consulted have been obliged to take on debts for the payment of the consultation and medicines. Patients also tend to wait too long before attending a consultation.

## Recommendations

*From Refugee International*

- Slow down the repatriation process until the government of Burundi has shown more progress towards addressing key social issues
- UNHCR deploy protection officers at registration and transit centres
- Donor countries make available fund pledged at the January 2004 Brussels' conference for the rebuilding of basic infrastructure

*From the MSF survey on access to health care*

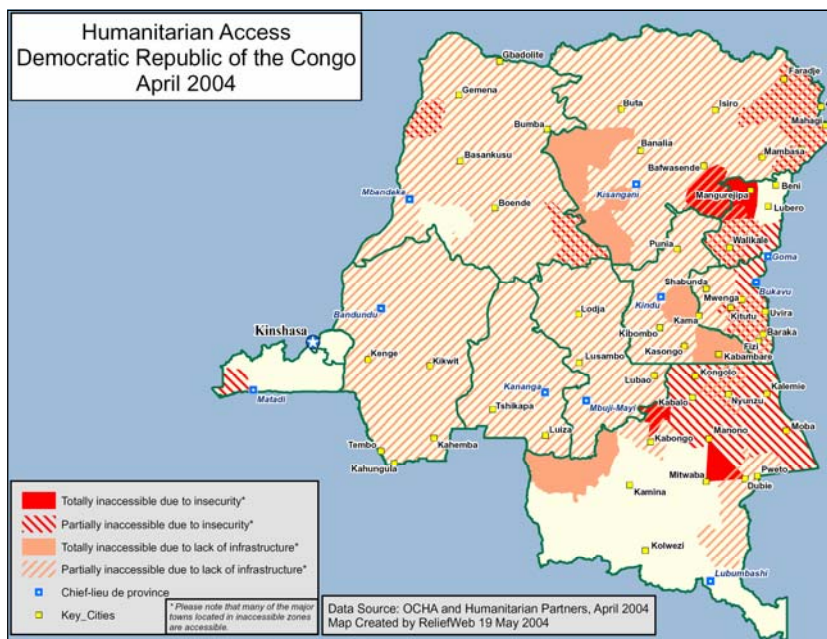
- Urgently implement a health care system accessible to all
- Give particular attention to the most vulnerable

## Democratic Republic of the Congo

Despite a general improvement in the security situation since the signing of a peace agreement in mid-2003, part of DRC is still not accessible because of poor infrastructure or insecurity, which prevails especially in the east (see map). Violence has been reported during April and May in North Kivu, South Kivu and Katanga; it is estimated that 30,000-35,000 people were displaced in April in these areas

(OCHA, 30/04/04). In late May, fighting between rival factions of the army erupted in Bukavu; more than 2,000 people fled to Rwanda (IRIN, 31/05/04). A demobilisation and re-integration project of an estimated 150,000 ex-combatants has been approved by the World Bank (WB, 25/05/04).

Between 80,000 and 100,000 people, mainly Congolese, considered to be illegal diamond miners, have been expelled from Angola to DRC in dire conditions (see Angola).



## Worrying situation in Bundu health zone, Fizi area, South Kivu

The area was inaccessible for years owing to the war. Since mid-2003, the security situation has improved as well as the access to the area. The main activities are agriculture and fishing; they have been reduced during the war because of insecurity and lack of seeds and inputs. During the last few months, there seems to have been a lot of spontaneous returns of Congolese refugees to Fizzi; the number of returnees was estimated at 44,000 (OCHA, 21/05/04).

The nutrition situation in Nundu health zone is of concern (AAH-US, 11/03) (table 19). Despite the improvement in the security situation, people do not benefit from good food security or access to basic services.

## Average nutrition situation in Shabunda and Lemera, South Kivu

In Lemera, security has been poor for years and is not yet completely stabilised. The main source of food is own production, essentially cassava. Although arable land is available, it is too expensive for the majority of the population. Prices of livestock have dramatically increased, following intense looting. The buying power of the population has decreased. However, the nutrition situation was average (table 19) in November 2003 (AAH-US, 11/03).

In Shabunda, the nutrition situation was also average in November 2003 (table 19) and has greatly improved compared to February 2002, when the prevalence of acute malnutrition was 20.4% (AAH-US, 11/03). The improvement

has mostly been attributed to the amelioration of the security situation which allows cultivation and commercial exchanges.

## Acceptable nutritional status in Moba and Kansimba, Katanga

The nutrition situation was under control in Moba and Kansimba in October 2003 (table 19) and has improved compared to November 2001 when the malnutrition rate was 6.2% (AAH-US, 10/03). This could possibly be due to the improvement in the security situation. However, mortality rates were high (table 19).

## Nutrition situation of concern in Bankusu, Equateur

The main source of income before the war was coffee production but this was particularly affected during the war. The nutrition situation was of concern (table 19) as well as the food security situation (AAH-US, 02/04). Moreover, mortality rates were above alert thresholds (table 19).

## Overall

The improvement of the security situation since mid-2003 seems to have played a part in the amelioration of the food security and nutrition status in some areas (category III), whilst others remain at risk (category II).

TABLE 19 RESULTS OF NUTRITION AND MORTALITY SURVEYS, DRC

	Date	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Oedema (%)	Measles immunisation coverage (%)*	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
<b>SOUTH KIVU</b>							
Nundu health zone, Fizzi area	Nov-03	15.7 (13.3-18.3)	3.0 (2.0-4.4)	1.1	43.8	-	-
Shabunda	Nov-03	7.4 (5.2-10.4)	1.6 (0.7-3.3)	1.6	-	-	-
Lemera	Nov-03	6.3 (4.3-9.1)	3.2 (1.8-5.4)	2.8	-	-	-
<b>KATANGA</b>							
Moba & Kansimba health zones	Oct-03	3.7 (2.2-6.0)	0.2 (0.0-1.4)	0	45.5	1.42	2.93
<b>EQUATEUR</b>							
Basankusu health zone	Feb-04	8.8 (6.4-12.0)	2.2 (1.1-4.1)	01.5	55.8	1.0	3.2

\* According to cards and mothers' statements



## Uganda

The security situation has worsened since the beginning of 2004, leading to an increase in the number of displaced people. This may be due to a renewed military protocol between Uganda and Sudan, which allows Ugandan troops to pursue the Lord's Resistance Army (LRA) across the Sudanese border. It also seems that various armed Sudanese factions have attacked the LRA, forcing them to withdraw to Uganda (OCHA, 31/03/04).

It is estimated that between 1.2 and 1.6 million people are displaced in northern Uganda (FEWS, 16/04/04; WFP, 13/05/04); in Gulu, Pader and Kitgum districts, more than 90% of the population is displaced (see map). A major attack of the LRA in Barlonyo IDP camp in Lira district killed more than 200 people in February 2004 (OCHA, 29/02/04). In March, April and May, a number of sporadic attacks on IDP and refugee camps were reported in Gulu, Kitgum, Pader and Lira districts (USAID, 05/05/04). In Adjumani, 31,000 refugees fled after an attack. They have settled with relatives in other refugee settlements in Adjumani and Moyo districts (UNHCR, 07/05/04).

### Dire situation in Northern Uganda

Conditions in most of the IDP camps are reported as being far from adequate. In most of

the camps in Lira and Gulu districts, people can not get access to the 15l/pers/day of water recommended. Latrines are also reported as being scarce, in some camps there is only one latrine for 100 people or more (USAID, 05/05/04). In addition, IDPs have little access to health care (USAID, 05/05/04). HIV/AIDS prevalence is believed to be 13.2% in Gulu district (OCHA, 30/04/04).

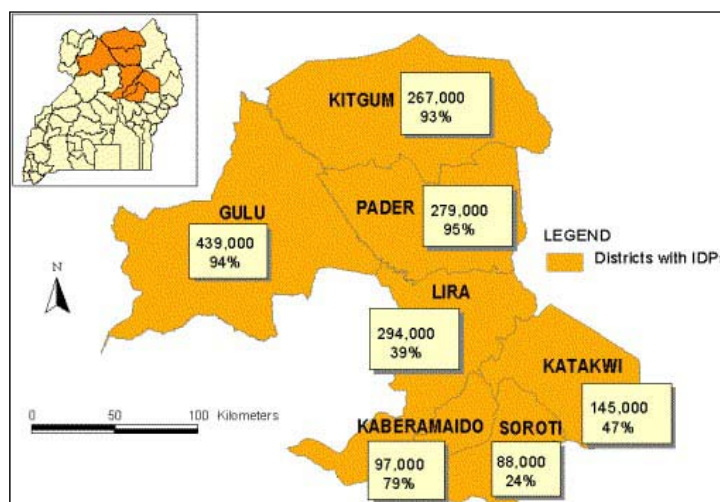
Food security has been reported as deteriorating in Gulu, Kitgum and Pader districts, and it was recommended that the food ration distributed by WFP be increased to 75-80% of a full ration (OCHA, 31/03/04). Due to insecurity, people only have access to land within a three km radius around the camps (FEWS, 16/04/04). WFP urgently requires new donations, otherwise their stocks will be exhausted by July (WFP, 13/05/04).

The government of Uganda will allocate 630,000 US\$ to IDPs, mainly to provide them with food (IRIN, 28/04/04).

A better security situation in Eastern Uganda has led to the return of some IDPs; most of the IDPs settled in Kumi district have returned to Kaberamaido, Katakwi and Soroti districts (FEWS, 16/04/03).

In Soroti district, eastern Uganda, the situation seems to have improved slightly, the number of children admitted to the TFC dropped from 430 at the peak of the crisis to 20 as of February 2004 (OCHA, 29/02/04).

NUMBER AND PERCENTAGE OF DISPLACED PERSONS  
BY DISTRICT, NORTHERN UGANDA  
(FEWS, 01/05/04)



## GULU DISTRICT

Systematic random-sampled nutrition surveys were conducted in the 32 IDP camps of Gulu district in September/October 2003 (WFP/MOH/UNICEF, 10/03). The prevalence of malnutrition varied between 7.2% and 19.9%, depending on the camp. The malnutrition rate was below 10% in only three camps which were considered scattered and where people had appreciable access to intra-camp resources. The malnutrition rate was between 10% and 15% in 19 camps which were mixed congested and where people had access to resources. In ten camps, the prevalence of malnutrition was above 15%; these camps were overcrowded and people had low access to intra-camp resources. Access to water was reported lower than the 15 l/pers/day recommended. The malnutrition rates seem higher than was reported in May 2003, when a cluster-sampled nutrition survey in 21 of the 32 camps showed a prevalence of acute malnutrition of 6.7%.

## PADER DISTRICT

Malnutrition rates varied between 5.3% and 21% in seven IDP camps (of a total of 12 camps) where systematic random-sampled surveys were conducted in September/October 2003 (WFP/MOH/UNICEF, 10/03). The nutrition situation was under control in **Kalongo town**, according to a random-sampled nutrition survey (GOAL, 02/04). About 70% of the families interviewed were displaced. **The prevalence of acute malnutrition was 4.7% (3.5-6.4), including 0.7% (0.3-1.5) severe acute malnutrition. The situation has greatly improved compared to August 2003 when the acute malnutrition rate was 11.6% (8.6-14.2) (see RNIS 43).** No hypothesis regarding the improvement of the situation could be drawn from the survey report. However, the current survey was conducted after the harvest done in December 2003, and 44% of the families surveyed reported having harvested, which may have improved their food security. 73.5% of the families were registered to receive food distribution and 89% actually received a food ration between August 2003 and February 2004; this seems to be an increase compared to August 2003 when only 70% of the families registered had received a food distribution. The main source of income was daily labour and petty trading and the main source of food

was purchase. This is the same pattern as in August 2003 (see RNIS 43). 30% of the households used an unprotected source of water: this has not improved compared to August 2003.

Mortality rates were above alert thresholds:  $CMR = 1.5/10,000/day$ ,  $< 5 MR = 2.1/10,000/day$ .

## KITGUM DISTRICT

According to seven systematic random-sampled nutrition surveys carried out in IDP camps in Kitgum district (of a total of 12 camps), malnutrition rates varied from 13.9 to 18.8%, depending on the camp (WFP/MOH/UNICEF, 10/03).

## LIRA DISTRICT

A random-sampled nutrition survey carried out in nine IDP settlements (of a total of 23 settlements) in **Lira town showed that the nutrition situation was under-control: 4.9% (3.2-7.1) of the children surveyed were acutely malnourished, including 1.5% (0.6-2.9) severely malnourished (Epicentre, 01/04). On the other hand, mortality rates were high:**

**$CMR = 1.9/10,000/day$ ,  $< 5 MR = 2.2/10,000/day$ .** Violence accounted for 50% of the deaths among people more than five years old.

An assessment, using a convenience sample, was also conducted in two camps outside Lira town (Epicentre, 01/04). The prevalence of acute malnutrition was 8.8%, including 3.1% severe acute malnutrition.

Most of the IDPs arrived in Lira town and IDP camps between September and November 2003. Measles vaccination coverage seemed good (more than 95% in both assessments), but some deaths from measles were reported. About 40% of the IDPs in Lira town had received at least one food distribution, since the implementation of distributions in October 2003. In one of the IDP camps, no food distribution had been carried out, whilst in the other, 60% of the IDPs received at least one food distribution.

MSF-H has implemented a TFC in Lira hospital and two supplementary centres in Lira municipality. As of January 2004, about 40 children have been admitted each week to the TFC and 10,000 children were being cared for in supplementary feeding centres.

## Acceptable nutrition situation in Palorinya refugee settlements, Moyo district

About 31,500 Sudanese refugees were settled in Palorinya as of February 2004. A random-sampled survey conducted in March 2004 showed an acceptable nutrition situation: The prevalence of acute malnutrition was 5.0% (3.2-7.5), including 0.2% (0.0-1.4) severe acute malnutrition (ADEO, 03/04). The nutrition situation has remained under control since 1998.

## Overall

The situation of IDPs in northern Uganda is still dire (category II). They lack access to basic services and lands and are subjected to periodical violence; the provision of aid is greatly impaired by the insecurity. It seems that the situation in towns is better than in some camps in rural areas. This may be due to better security conditions and better access to basic services and coping mechanisms.

## Chad Rapid degradation of the humanitarian situation

The number of Sudanese refugees, fleeing violence in Darfur may be as high as 200,000, according to Refugee International, whilst the latest estimate of UNHCR is 125,000 (RI, 19/05/04).

### CAMPS OVERCROWDED AND LACKING BASIC FACILITIES

Since the beginning of the year, about 77,000 refugees have been settled in seven refugee camps (table 20) (UNHCR, 24/05/04). However, the camps are already overcrowded, some refugees having gone by themselves to the camps in search of aid (IRIN, 25/05/04; UNHCR, 24/05/04).

TABLE 20 NUMBER OF REFUGEES IN REFUGEE CAMPS, CHAD, MAY 2004 (UNHCR, 24/05/04)

Camp	Number of refugees
Farchana	13,360
Touloum	17,787
Iridimi	14,819
Kounoungo	8,271
Mille	2,073
Goz Amer	18,143
Breidjing	187

Availability of water is a major problem in this dry-land area and the recommended quantity of 15 litres/pers/day was not met in some camps (IRIN, 25/05/04; MSF, 11/05/04). Sanitation facilities were also reported lacking and disease was on the rise (MSF, 11/05/04). Food distributions were in place but seemed irregular and unbalanced, often with only cereals being distributed (FEWS, 25/03/04). The camps are located on dry-land and isolated areas and refugees probably rely almost only on external aid. It seemed that the nutrition situation of the refugees in the camps was worse than that of the refugees in host communities (MSF, 11/05/04).

### REFUGEES NEAR THE BORDER AT RISK

Several thousands of refugees are still settled within host communities near the border. They are at increased risk of being targeted by the Sudanese militia who have made several incursions into Chad (IRIN, 14/05/04). A high number of livestock deaths has been reported, but it is not clear if it was due to disease or lack of fodder (IRIN, 25/05/04). Some refugees have also been reported as lacking food, especially in the area of Korfou (RI, 05/05/04). An outbreak of meningitis occurred in Iriba district (WHO, 08/04/05); a vaccination campaign has been carried out.

## HOST POPULATION EXHAUSTED

The Chadian host population has provided help to refugees, especially in terms of food (IRIN, 20/05/04). This has weakened their livelihoods and they may be at risk of food insecurity amid increasing food prices and the beginning of the hunger-gap. Moreover, they are also subjected to cattle-raiding by the militia.

## DIFFICULT DELIVERY OF AID AND INSUFFICIENT FUNDING

The delivery of aid is rendered difficult by the remoteness of the area, the size of the area to be covered (refugees are stretched over 600 km along the Sudanese border), poor logistic conditions and low availability of goods and skilled staff in Chad (IRIN, 25/04/04). The upcoming rainy season, which will start in June will even worsen the situation; efforts are

being made to pre-position food and non-food items.

WFP and UNHCR have only received 65% and 62% of their requirements, which, moreover, may have under-estimated the number of people in need (IRIN, 25/05/04).

## Overall

The humanitarian situation of the refugees in Eastern Chad and of the host population seems to be rapidly deteriorating (category I). Programmes should be scaled-up and integrate the host population. Donor agencies should increase their commitment to the crisis. The onset of the rainy season will further impair the delivery of assistance.

# Southern Africa

## Angola

Owing to heavy rains, Huambo province and part of Huila province, especially Caconda municipality face reduction in maize production. Maize production is expected to be 35% below normal in Huambo, and 75% below normal in Caconda municipality. Although there are surpluses in other areas, bad transport conditions will hamper marketing surplus production (OCHA, 30/04/05; FEWS, 12/04/05).

About 1.3 million Angolans are in need of food aid, including returnees. However, WFP faces a high funding shortfall: only US\$ 35 million of the US\$ 253 million required had been received (WFP, 06/05/04). Rations had already been halved in April and May and are scheduled to be further reduced by June, unless WFP receives cash pledges. WFP is also experiencing a shortfall in feeding Angolan refugees in nearby countries and will face serious challenges to provide a food package to refugees who will return with the UNHCR repatriation programme due to resume in May-

June (UNHCR, 21/05/04).

There were several reports of human rights violations

when Congolese and people from other nationalities, considered to be illegal diamond miners, were expelled from Angola (MSF, 29/04/04; AI, 14/05/04). An estimated 80,000-100,000 people have been expelled to DRC over the last months in dire conditions. People have been held with no basic services available, have been forced to walk for more than 60 km with no water and food. There have been reports of rape and other human rights violations. People arrived mostly in Bandudu and Kasai Orientale province in DRC stripped of possessions and clothes. Most of those expelled were born in Angola and have no place to which they can return. Humanitarian agencies provide aid as far as possible (OCHA, 07/05/04). The government of Angola has recently announced a 45-day suspension of expulsions (IRIN, 20/05/04).





## Stable nutrition situation and returnees more at risk, especially in inaccessible areas

According to several surveys received by NICS, the nutrition situation has not significantly improved since 2003 (ACH, 01/04-02/04; CRS, 04/04; MSF-S, 03/04). The same pattern is shown by the number of admissions to TFCs country wide (figure 8). Moreover, it seems that the number of admissions to TFC slightly increased in December 2003 compared to December 2002 in Benguela and Huila provinces (UNICEF-A, 02/04).

The only real improvement is seen in accessible areas of Caconda municipality (ACH, 01/04). This can be partly explained by the return of the IDPs to their area of origin: the population halved between June 2003 and January 2004 and in January 2004 the majority of the population was resident (91%), whilst in June 2003, more than half of the population was displaced people. On the other hand, screening conducted in areas where a lot of people returned, showed a more worrying situation, especially in areas not accessible to humanitarian agencies owing to poor road conditions and the presence of landmines: screening carried out during a food distribution found 166 acutely malnourished children of 927 children screened (17.9%) (ACH, 02/04). In Ganda and Cubal municipalities, 20% of the population was returnees.

Whilst mortality rates were under alert thresholds in Matala and Cubal municipality, they were high in IDP camps in Matala and in Caconda and Ganda municipalities (table 21). Measles vaccination and vitamin A distribution coverage was insufficient (table 21).

## Overall

There has not been a noticeable improvement in the nutrition situation in Angola since 2003 (category II/III). This may be attributed to the fragile food security situation, especially for the returnees who represent a significant proportion of the population. Unfortunately, donors' and the government of Angola's commitment to Angola's reconstruction is weak and far from sufficient to ensure a significant improvement of the situation.

## Recommendations

From FEWS in Huambo province

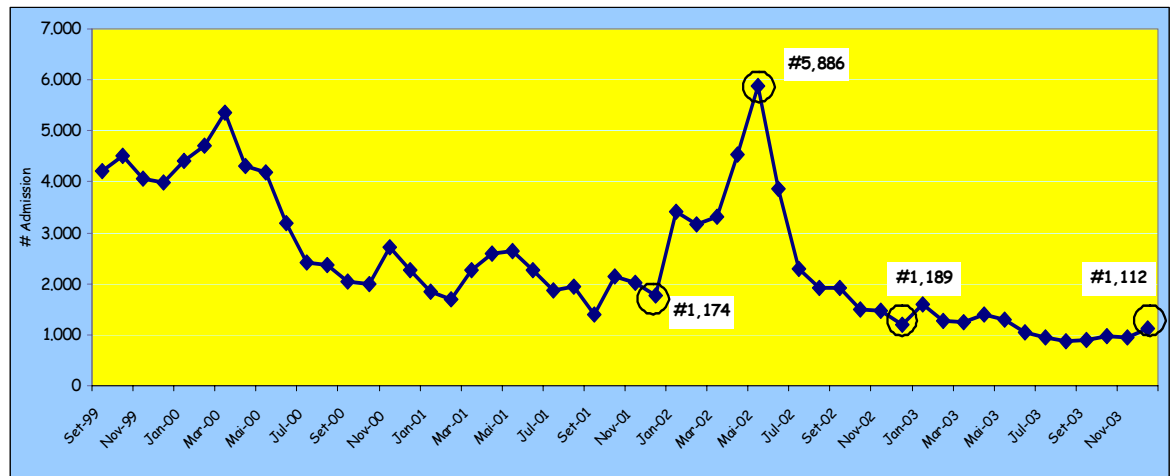
- Provide seeds
- Implement food aid programmes
- Increase nutrition surveillance

TABLE 21 RESULTS OF NUTRITION AND MORTALITY SURVEYS, ANGOLA

	Agency	Date	Measles immunisation coverage (%)*	Vitamin A distribution coverage (%)	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
Caconda municipality, Huila province	ACH	Jan-04	67.6	53.1	1.07	3.07
Ganda municipality, Benguela province	ACH	Feb-04	88.0	56.9	1.36	4.02
Katjanguite & Fazenda Tomba IDP camps, Matala, Huila province	MSF-S	Mar-04	64.1	-	1.1	2.4
Matala, Huila province	MSF-S	Mar-04	67.2	-	0.7	1.5
Cubal municipality, Benguela province	CRS	Apr-04	-	6.6	0.59	1.52

\* According to cards and mothers' statements

FIGURE 8 ADMISSIONS TO THERAPEUTIC FEEDING CENTRES, ANGOLA (UNCEF-A, 04/04)



## Zambia

The last NICS report (see NICS 1) reported on a random sampled- nutrition survey which was carried out in the Angolan refugee camp of Nangweshi in July 2003 (UNHCR/ICH, 07/2003). The anthropometric nutritional status of the children was satisfactory. The survey also assessed micro-nutrient deficiencies among children, adolescents and adults.

**Vitamin A deficiency was assessed among 204 adolescents and proved to be a severe public health problem** (table 22). There was no differ-

ence between sexes but there was a high correlation with age; vitamin A status was more satisfactory among older adolescents than among younger. Vitamin A status was not assessed among children as a programme of distribution of vitamin A capsule was on-going and its coverage was reported as being high. **Anaemia was found to be a problem of high significance in children, of medium significance in pregnant women and of low significance in adolescents and non-pregnant women** (table 23). There was no difference between

TABLE 22 VITAMIN A STATUS OF ADOLESCENTS (10-19 YEARS), NANGWESHI REFUGEE CAMP, ZAMBIA, JULY 2003 (UNHCR/ICH, 07/03)

N	Total % < 0.7 µmol/L (95% CI)	Vitamin A Deficiency	
		Medium Risk % < 0.7 & ≥ 0.35 µmol/L (95% CI)	High Risk % < 0.35 µmol/L (95% CI)
204	47.1 (40.1 - 54.1)	41.7 (34.9 - 48.8)	5.4 (2.9 - 9.7)

TABLE 23 PREVALENCE OF ANAEMIA, NANGWESHI REFUGEE CAMP, ZAMBIA, JULY 2003 (UNHCR/ICH, 07/03)

Population group	N	Mild anaemia*(%) (95% CI)	Moderate anaemia*(%) (95% CI)	Severe anaemia*(%) (95% CI)	Total anaemia*(%) (95% CI)
6-59 months	155	15.5 (10.4-22.4)	31.0 (23.9-39.0)	1.3 (0.2-5.1)	47.7 (39.7-55.9)
10-19 years	213	9.4 (6.0-14.3)	7.5 (4.5-12.1)	1.9 (0.6-5.1)	19.3 (14.3-25.3)
Non-pregnant women	116	6.9 (3.2-13.6)	7.8 (3.8-14.6)	3.4 (1.1-9.1)	18.1 (11.8-26.6)
Pregnant women	28	14.3 (4.6-33.6)	10.7 (2.8-29.4)	0.0	25.0 (11.4-45.2)

\*See at the end of the report for definition of cut offs

sexes and no correlation with age, either among children or adolescents. The measurements of iron deficiency and malaria infection tended to show that iron deficiency was a significant factor of anaemia, whilst malaria did not contribute significantly to anaemia.

**No visible goitre was detected among 213 adolescents.** Moreover, the mean urinary iodine concentration was 785 mg/L, indicating that consumption appears to be excessive. It is recommended that salt is tested for levels of iodine to ensure that the fortification level is appropriate.

**Some cases of pellagra (vitamin B3 deficiency) were detected in the camp, although not within the sample frame of the survey.** The presence of one clinical case of pellagra is regarded as indicative of a mild public health problem. A further screening among 1248 children enrolled in primary and secondary schools did not identify any cases of pellagra. A pilot project of micro-nutrient fortification of the cereal meal distributed through the general ration has been implemented since September 2003.

A joint UNHCR/WHO evaluation of health and nutrition was carried out in the Angolan refugee camps of Mayukwayukwa and Nangweshi, West Zambia and the Congolese refugee camps of Kala and Mwanze, North Zambia in December 2003 (UNHCR/WHO, 12/03). The main findings regarding health are summarized below:

Data on mortality were unreliable; but mortality was not thought to be high.

Health centres appeared to be providing quality, conscientious and appropriate care although there were areas in each camp that needed attention and improvement.

It seems that there was a good referral system. Several issues were raised regarding nutrition: Food basket monitoring needs to be implemented or improved.

Whilst in Mayukwayukwa and Nangweshi camps, selective feeding programmes follow international standards and protocols, management of acute malnutrition is done on an ad hoc basis in Kala and Mwanze camps.

There were no specific case definitions and guidelines in use for the detection of micro-nutrient deficiencies.

## Asia

### Afghanistan

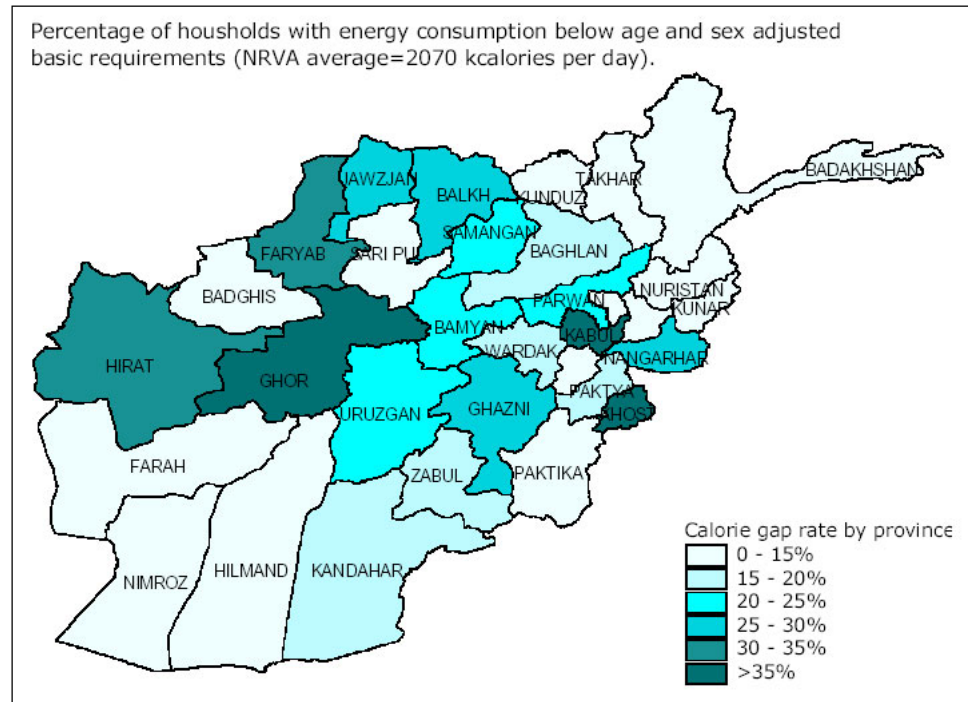
The security situation has remained volatile. The Berlin donors' conference, held at the end of March 2004, was promising in terms of funding the next seven-year budget presented by the Afghan government. Donors' pledges were secured for the first year (\$US 4.5 billion) and were encouraging for the initial three years (BAAG, 31/03/04).

The preliminary results of the National Risk and Vulnerability Assessment, a multi-stakeholder initiative, conducted in summer 2003 (at a time of a bumper harvest), found that more than half of the rural population was under poverty line (FEWS, 03/04). Poverty seems to be concentrated in the central and northwest regions. In rural areas, about 40% of



the households interviewed felt that the situation had improved compared to the previous year, whilst 25% felt it had deteriorated. The impression of improvement was higher among the better-off than among the poorest. The households were equally distributed between those saying they could meet their food needs often, sometimes or rarely. Unsurprisingly, the poor had more difficulty in meeting their food needs than the better-off. The proportion of families within Afghanistan who cannot meet their food needs (defined as 2047 Kcal/pers/day) is heterogeneous (see map).

## ENERGY CONSUMPTION, AFGHANISTAN (FEWS, 03/04)



### **Pakistan** **Worrying situation in Badin District, Sindh province**

After eight years of drought, Badin district experienced heavy rains and floods during summer 2003. Hundred of deaths were reported, as well as a massive loss of crops and livestock, and destruction of housing. About 75% of the villages were estimated to have been affected. Most of the households have increased their debts to rebuild their houses, restock and buy agricultural inputs and food. Some families who have not been able to rebuild their houses have been living in public buildings. Families have reduced their food intake from two to three meals before the crisis to one meal at the time of the survey; the quality of the meals has also deteriorated. A random sampled nutrition survey was carried out in the six most affected union councils

of Badin district in February 2004 (ACF/F, 02/04). **The survey showed a worrying nutrition situation: 17.3 % (14.0-21.3) of the 6-59 month olds were acutely malnourished, including 1.4% (0.6-3.2) who were severely malnourished.** This survey confirmed findings of previous assessments. The food security situation is not likely to improve in the coming months as some fields are still flooded and the population has estimated that less than 40% of the fields will produce a crop in March 2004 (ACF-F, 11/03/04).

### **Recommendations**

*From the ACF-F survey*

- Investigate food security concerns of the population and possible responses
- Address drinking water needs
- Treat acute malnutrition
- Improve hygiene practices

## Nepal

### Buthanese refugees\*

Ethnic Nepali refugees from southern Bhutan began to arrive in Nepal towards 1991 following the Bhutanese authorities' enforcement of restrictive immigration and citizenship laws. As of June 2003, around 103,000 refugees were settled in seven camps in Jhapa and Morang districts, eastern Nepal. Despite several rounds of negotiation over the last years, no solution to the refugee crisis has yet been found (HRW, 28/10/03).

#### AVERAGE ANTHROPOMETRIC NUTRITION STATUS

Regular yearly nutrition surveys have been conducted since 1992. Apart from the survey done in 1992 which showed a high level of acute malnutrition, the surveys carried out later revealed an average nutrition situation: the prevalence of acute malnutrition, expressed in percentage of the median until 1998, was about 5% (UNHCR/WHO, 03/04). Acute malnutrition rates expressed in Z-scores are available for 1999, 2000, 2002 and 2003 and also show an average nutrition situation (figure 9).

Prevalence of stunting has remained around 30.0% over the last four years (UNHCR/WHO, 03/04).

#### MICRO-NUTRIENT DEFICIENCIES

High levels of micro-nutrient deficiencies such as scurvy, beri-beri and pellagra were reported in 1993-1994 (FE, 10/98; RNIS 5 to 7). After various actions had been taken to prevent

micro-nutrient deficiencies, such as replacement of polished rice by parboiled rice and inclusion of fortified blended food in the general ration, distribution of green vegetables and nutrition education, cases of micro-nutrient deficiencies have decreased. However, a rise in the number of cases of angular stomatitis (deficit of vitamin B2) occurred in early 1999. This may have been linked with the withdrawal of the blended from the general ration and the irregular supply of green vegetables. The situation improved in late 1999 (see RNIS 26 to 31).

Clinical assessment of angular stomatitis is included in the nutrition surveys. The prevalence among the 6-59 month olds seems to have regularly declined since 1999 (figure 10). On the other hand, a significant number of new cases were still reported in the health facilities, in May and June 2003. Cases of mild beri-beri, vitamin A deficiencies and scurvy were also reported, whilst no case of pellagra was detected. However, health facilities do not seem to have written case definitions of micro-nutrient deficiencies (UNHCR/WHO, 03/04). Bi-annual distributions of vitamin A capsules for children 6-59 months are implemented and, according to the nutrition surveys, the coverage seems to be adequate: 93.2%, 95.3% and 98.4% coverage in 2001, 2002 and 2003, respectively (AMDA, 08/01; 06/02; 06/03).

#### AVERAGE FOOD SECURITY SITUATION

##### Food distribution

Regular food distributions of parboiled rice (410 g/pers/day), lentils (60 g/pers/day), chick peas (20 g/pers/day), salt (7.5 g/pers/day) and vegetable oil (25 g/pers/day) provide 2000-2100 Kcal/pers/day (UNHCR/WHO, 03/04). Fresh vegetables are also provided.

##### Other sources of food

In 2003, about 86% of the households declared having purchased food, mainly vegetables and dairy products (AMDA, 06/03).

A significant number of households have kitchen gardens: 53%, 71% and 61% in 2001, 2002 and 2003 respectively (AMDA, 08/01; 06/02; 06/03).

FIGURE 9 PREVALENCE OF ACUTE MALNUTRITION IN REFUGEE CAMPS, NEPAL

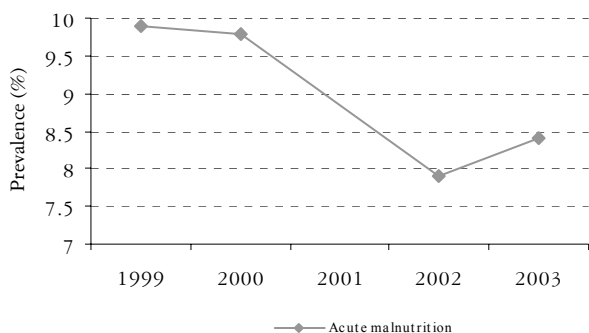
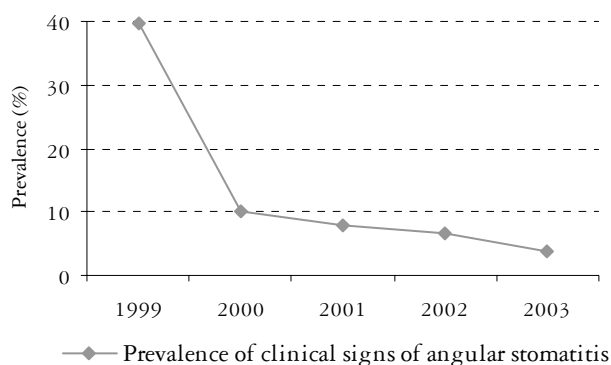


FIGURE 10 PREVALENCE OF CLINICAL SIGNS OF ANGULAR STOMATITIS ASSESSED DURING NUTRITION SURVEYS, REFUGEE CAMPS, NEPAL (AMDA)



#### Sources of income

About half of the families surveyed reported having regular sources of income in 2003 (AMDA, 08/01; 06/02; 06/03). The main sources of income were petty trading, daily work and incentives from aid agencies.

#### CHILD CARE PRACTICES

The 2003 survey found that 98% of the 0-1 year olds were breastfeeding (AMDA, 06/03). However, mothers tend to introduce complementary feeding such as blended food or cow milk in the first 1-2 months of life (UNHCR/WHO, 03/04).

#### NUTRITION PROGRAMMES

Selective feeding programmes are being implemented in all camps for malnourished children, pregnant and lactating (0-6 months after delivery) mothers, children aged 6-11 months, TB and elderly sick (UNHCR/WHO, 03/04). The bulk of the ration provided is a locally-produced fortified blended food. Some problems regarding the follow-up and the weight gain of the malnourished children were reported as well as an inadequate expertise in counselling the mothers about child feeding. No therapeutic feeding centres are in place (UNHCR/WHO, 03/04). Growth monitoring (weight-height and weight-age) is implemented for children aged 0-24 months. Whilst 0-12 month children regularly attend monthly growth monitoring because their mother re-

ceive supplementary food, only 30% of the one to two year olds are followed-up. No counselling is provided to mothers of children who fail to gain weight adequately.

*\* Reviewed by Oleg O.Bilukha from CDC and consultant for the WHO/UNHCR evaluation in refugee camps*

#### Nepalese crisis

The "People's war", a civil insurgency led by the Maoists, an opposition force to the Monarchy, erupted in 1996. The conflict escalated in late 2001 with the involvement of the army and the declaration of a state of emergency. A ceasefire agreement was signed in January 2003 but broke down in August the same year and the conflict has since escalated. As of the beginning of 2004, it was estimated that 73 of the 75 districts of Nepal were affected by the conflict (RI, 23/03/04).

Human rights abuses and violations by both parties have been on the rise and the war has created thousands of victims (RI, 23/03/04; AFP, 11/04/04).

Whilst until 2001, civilians targeted by the Maoists were mostly from the upper class, including teachers, it seems that in recent years, actions of both Maoists and government forces have been affecting any category of the population (NRC, 10/10/2003). Education has broken down and business, the local economy and public services have been disrupted.

The civil unrest has also led to displacements, mainly from the rural areas to district headquarters and city centres, and to migration to India. These are the same patterns that poor economic migrants traditionally follow. Estate and rent prices have gone up considerably in towns (Nepal news, 18/09/03). The number of IDPs is not known precisely and may be between 100,000 and 150,000 (NRC, 03/03). Whilst the better-off seem to have had the means to restart a new life in towns, poor IDPs are more at risk. Assistance to IDPs seems low, with no government policy and few assistance programmes (RI, 23/03/04). Estimation of the number of IDPs and the provision of assistance to IDPs are made difficult by the political situation.

As of 2003, it was not clear how far the current crisis had affected the food security of the

population. According to an ICRC survey conducted in the west-central region in January 2003, there was no acute food crisis at the time but the persistence of the conflict could precipitate a crisis (ICRC, 13/01/03). Another study stated that as of 2003, although a significant proportion of the population was food-insecure, it was not clear whether there has been a decline in food security over the past five years and if this decline may be attributed to the conflict (EC, 2003). The study also recognised that the restrictions on the movement of people and goods may have the effect of increasing food insecurity, especially in the areas where self-reliance is impossible.

A rapid nutrition and food security assessment in four districts of the Mid-West region, carried out in January-February 2003 found a high level of food insecurity, but this had not changed significantly from the previous five years (WV, 01-02/03). Traditional coping mechanisms were becoming stretched.

Rapid nutrition assessments showed level of acute malnutrition slightly above 10% in three districts, whilst it was 5% in Lamjung district (WV, 01-02/03). According to a Demographic and Health Survey, the prevalence of malnutrition was 8.1% in the mid-western region in 2001 (MOH/ORC, 2001).

## Overall

The on-going conflict has led to major human rights abuses and to the displacement of thousands of people

into major cities and India. Whilst the better-off may be able to cope with the displacement, the poorest may be in a more difficult situation. In rural areas, although the direct impact of the conflict on food security is unclear, the recent upsurge in violence may have further weakened the already flimsy food security of the population, and coping mechanisms may become exhausted.

The nutrition status of the refugees is average, with micro-nutrient deficiencies reported, although some measures have been taken to overcome this problem.

## Recommendations

*From the UNHCR/WHO assessment in refugee camps*

- Additional training of the staff of nutrition unit
- *Pay more attention to counselling of mothers*
- *Improve the coverage of the growth monitoring for children more than one year*
- Implement treatment of severe acute malnutrition
- Improve food basket monitoring

# Listing of Sources

## Greater Horn of Africa

### Eritrea

FEWS	25/03/04	Eritrea, food security update
FEWS	21/04/04	Eritrea, food security update
MOH/joint	12/2003	Nutrition survey report, Anseba, Debub, Gash Barka and Northern Red Sea
OCHA	02/04/04	Eritrea: humanitarian update 2 Apr 2004
OCHA	23/04/04	Donor information update Eritrea Mar-Apr 2004
WFP	30/04/04	WFP emergency report nb 18

### Ethiopia

Concern	11/03	Nutrition survey report, Dessie Zuria woreda, south Wollo, Amhara region, Ethiopia
Concern	11/03	Nutrition survey report, Kalu woreda, south Wollo, Amhara region, Ethiopia
Concern	12/03	Nutrition survey, Offa woreda, Wolaita zone, SNNPR, Ethiopia
CRS	01/04	Nutrition survey report, Meta and Kersa district, East Haraghe, Oromia region, Ethiopia
DSA	12/03	Tehudere nutrition survey report
ENFS	04/04	Monthly report
FSAU-N	03/04	Nutrition update
GOAL/	02/04	Finding of a nutrition survey: Shebedino woreda, Sidama, SNNPR
SC-US/ACF		
OCHA	03/04	Situation of IDPs in Bordode/Mieso, Fafen and Hartisheik areas of the Somali region
SC-UK	09/03	Nutrition assessment in agro-pastoral areas of Erer, Shinile and Dambal districts, Shinile zone, Somali region
SC-UK	09/03	Nutrition assessment in pastoral areas of Ayshia, Shinile, Dembel districts, Shinile zone, Somali region
SC-UK	12/03	Nutrition assessment in Golo Oda woreda of East Haraghe zone and Arere districts, Oromyia region
SC-US	11/03	Nutritional survey report, Meskan woreda, Gurahe zone, SNNPR
SC-US	11/03	Nutritional survey report, Mareko woreda, Gurahe zone, SNNPR
SC-US	12/03	Nutritional survey report, Dalocha woreda, Siliti zone, SNNPR
SC-US	12/03	Nutritional survey report, Lanfuro woreda, Siliti zone, SNNPR
SC-US	02/04	Gode woreda, Gode zone, Somali region, nutrition survey report
USAID	08/04/04	Ethiopia: complex health/food insecurity emergency situation report #2
WFP	21/05/04	Emergency report n° 21

### Kenya

FEWS	19/03/04	Fews Kenya food security warning - 19 Mars 2004
FEWS	05/04/04	Monthly food security update
FEWS	06/05/04	Kenya food security report
IRC	12/03	Nutritional survey, children 6-59 months, Kakuma refugee camp, Kenya
OXFAM	02/04	Nutritional anthropometric survey and food security assessment, Turkana district



## Somalia

IRIN	25/05/04	IGAD warns Somali leaders as talks enter final phase
FSAU-FS	02/04	Food security report
FSAU-FS	03/04	Food security report
FSAU-FS	05/04	Food security report
FSAU-N	04/04	Nutrition update
FSAU-N	05/04	Nutrition update

## Sudan

AAH-US	09/03	Nutritional anthropometric survey, children under five year old, Gumriak payam, Ruweng county, Upper Nile
AAH-US	10/03	Nutritional anthropometric survey, children under five year old, Nyadin payam, Zeraf county, Central Upper Nile
AAH-US	10/03	Nutritional anthropometric survey, children under five year old, Nyadin boma, Mareang payam, Zeraf county, Central Upper Nile
AAH-US	11/03	Nutritional anthropometric survey, children under five year old, Mareang payam, Zeraf county, Central Upper Nile
AAH-US	11/03	Nutritional anthropometric survey, children under five year old, Atar, Alam Piji and Duk payams, Khorfulous county, Upper Nile
AAH-US	01/04	Nutritional anthropometric survey, children under five year old, Kapoeta payam, Kapoeta county, Eastern Equatoria
AAH-US	03/04	Nutritional anthropometric survey, children under five year old, Old Fangak payam, Zeraf county, Central Upper Nile
ACF	02/04	Nutritional anthropometric surveys, summary report, Wau town and camps
AFP	08/04/04	Sudan government, Darfur rebels sign ceasefire deal
AFP	25/05/04	Red Cross chief says access to Darfur improved but could still be better
AFP	24/05/04	WHO confirms ebola outbreak in south Sudan, four dead
GOAL	02/04	Kassala state, nutrition survey report, IDP camps and the Gargaf area
ICG	16/05/04	Sudan's Darfur: an international responsibility to protect
IRIN	19/05/04	Conflict in the south escalates ahead of peace deal
IRIN	21/05/04	Sudan: government to ease travel restrictions for Darfur
IRIN	28/05/04	Details of peace protocols signed this week
IRIN	28/05/04	New restrictions imposed on NGOs working in the south
MSF-H	04/04	Preliminary findings, food and nutrition survey, Wade Saleh and Mukjat provinces, West Darfur, North Sudan
OXFAM	25/05/04	Oxfam update on the situation in Darfur, Sudan
SC-UK	02/04	Kutum, nutrition survey report
UNCHR	07/05/04	Report of the UN high commissioner for human rights: situation of human rights in the Darfur region of the Sudan
UNICEF	19/05/04	UNICEF humanitarian action: Sudan - children affected by Darfur crisis
UNRC	20/05/04	Darfur crisis, Sudan: UN humanitarian situation report
UNRC	25/05/04	Darfur crisis, Sudan: UN humanitarian situation report
USAID	21/05/04	Darfur: humanitarian emergency fact sheet # 6 (FY 2004)

## West Africa

### Guinea

AFP	04/05/04	UN to cut aid to Sierra Leone refugees in Guinea at end of June
OCHA	20/02/04	OCHA Guinea humanitarian situation report n°1
URD	12/2003	Le projet qualité dans la région du golfe de Guinée

## Ivory Coast

ACF-F	12/03	Evaluation nutritionnelle, sous préfecture de Bin Houye et Zouan Hounien, département de Danane
FAO/WFP	03/04	FAO/WFP crop and food supply assessment mission to Côte d'Ivoire
IRIN	25/03/04	Côte d'Ivoire: opposition parties suspend role in government
OCHA	17/05/04	Crisis in Côte d'Ivoire Situation report n° 27
UNSC	27/02/04	Security Council establishes peacekeeping operation in Côte d'Ivoire, unanimously adopts resolution 1528 (2004)
UNSC	13/05/04	Côte d'Ivoire: Letter dated 12 May 2004 from UN SG addressed to the SC President
WFP	21/05/04	Emergency report n° 21

## Liberia

GW	24/05/04	Liberia: back to the future
IRIN	12/05/04	Liberia: UNMIL says 26,000 disarmed so far
IRIN	21/04/04	Demobilisation in Liberia: cash payments to child ex-combatants misguided
OCHA	10/01/04	Liberia humanitarian update
OCHA/ UNHCR	05/04	IDP return survey of official camps, Liberia, preliminary report
RI	21/04/05	Demobilisation in Liberia: Cash payments to child ex-combatants misguided
SC/ACF	11/03	Nutritional anthropometric survey, Montserrado camps, Liberia
UNHCR	17/05/04	Top story: UNHCR encourages Sierra Leoneans to go home as deadline approaches
UNHCR	18/05/04	Liberia: returnee population registration and verification begin
UNICEF	24/05/04	UNICEF humanitarian action donor update
VAM	11/03	Vulnerability assessment of Monrovia and its environments
WFP	11/03	Nutrition and retrospective mortality survey preliminary report, Monrovia and its environs
WFP	20/05/04	Food aid steadies first steps to peace in Liberia
WV	03/04	Health and nutrition survey, Bomi and Grand Cape Mount counties, Liberia

## Sierra Leone

OCHA	12/05/04	Sierra Leone: humanitarian situation report Apr 2004
URD	12/2003	Le projet qualité dans la région du golfe de Guinée

## Central Africa

### Burundi

AFP	06/05/04	After a decade of war, most of Burundi rediscovers peace
IRIN	14/04/04	Burundi: FAO, government report on refugee returnees
IRIN	15/04/04	East Africa: special report on repatriation of Burundian refugees
IRIN	17/05/04	Burundi: thousands more displaced in latest fighting
IRIN	17/05/04	Burundi-DRC: le HCR relogé des réfugiés congolais dans un camp plus sûr.
MSF	04/04	Burundi: vulnerable population deprived of healthcare
OCHA	14/05/04	Burundi: number of internally displaced in camps halved
RI	12/04/04	Burundi: Large-scale repatriation would threaten peace
RI	14/04/04	Refugees International raises protection concerns for Burundian refugees with the US Department of State

RI	28/04/04	Refugee voices: Burundian internally displaced women vulnerable to sexual exploitation
UNHCR	18/05/04	Burundi: repatriation from Tanzania - number remaining under 300,000
UNICEF Burundi	02/04	Analyse de la situation nutritionnelle
UNICEF Burundi	04/04	Analyse de la situation nutritionnelle
USAID	14/05/04	Burundi: complex emergency situation report #2 (FY 2004)

## DRC

AAH-US	10/03	Enquête nutritionnelle anthropométrique, zone de santé de Moba et Kansimba, province du Katanga, DRC
AAH-US	11/03	Enquête nutritionnelle anthropométrique, zone de santé de Lemera, province du Sud-Kivu, DRC
AAH-US	11/03	Enquête nutritionnelle anthropométrique, zone de santé de Shabunda, province du Sud-Kivu, DRC
AAH-US	11/03	Enquête nutritionnelle anthropométrique, zone de santé de Nundu, province du Sud-Kivu, DRC
AAH-US	02/04	Enquête nutritionnelle anthropométrique, zone de santé de Basankusu, province d'Equateur, DRC
IRIN	31/05/04	DRC-Rwanda: Bukavu crisis task force set up
OCHA	30/04/04	Humanitarian situation in DRC monthly update Apr 04
OCHA	21/05/04	Humanitarian situation in DRC 15-21 May 2004
WB	25/05/04	DR Congo: Emergency demobilization and reintegration project

## Uganda

ADEO	03/04	Nutrition, measles vaccination coverage and latrine coverage survey in Palorinya refugee settlements of Moyo district
Epicentre	01/04	Rapid assessment of the situation of internally displaced populations, Lira district, Uganda
FEWS	16/04/04	A monthly newsletter on food security and vulnerability in Uganda
GOAL	02/04	Findings of nutritional survey, Kalongo twon, Pader district, Northern Uganda
IRIN	28/04/04	Government allocate emergency funds for IDPs
OCHA	29/02/04	Humanitarian update Uganda Feb 2004 Volume VI, Issue II
OCHA	31/03/04	Humanitarian update Uganda Mar 2004 Volume VI, Issue III
OCHA	30/04/04	Humanitarian update Uganda Apr 2004 Volume VI, Issue IV
UNHCR	07/05/04	Aid on the way for displaced Sudanese refugees in Uganda
USAID	05/05/04	Uganda complex emergency situation #3 (FY 2004)
WFP/ MOH/UNICEF	10/03	Nutrition and health assessment in the internally displaced persons camps in Gulu district
WFP/ MOH/UNICEF	10/03	Nutrition and health assessment in the internally displaced persons camps in Pader district
WFP/ MOH/UNICEF	10/03	Nutrition and health assessment in the internally displaced persons camps in Kitgum district
WFP	13/05/04	Huge numbers facing food shortages amid violence in northern Uganda

## Chad

IRIN	14/05/04	Chad: militias are "out of control" cattle raiders
IRIN	20/05/04	Chad-Sudan: refugee influx puts strain on local population
IRIN	25/05/04	Chad-Sudan: refugee camps overcrowded as influx from Darfur escalates

FEWS	25/03/04	Rapport mensuel de la sécurité alimentaire au Tchad: situation précaire des réfugiés
MSF	11/05/04	Catastrophic conditions for Sudanese refugees in Chad
RI	05/05/04	Korfo, Chad update: WFP to organize urgent food shipments to the border area
RI	19/05/04	Chad: with rains looming, relief community must mobilize to assist Sudanese refugees
UNHCR	24/05/04	Urgence Darfour/Tchad

## Southern Africa

### Angola

ACH	01/04	Relatorio inquerito nutricional, municipio de Caconda, Angola
ACH	02/04	Relatorio inquerito nutricional, municipio de Ganda, Angola
ACH	02/04	Food security situation, Caconda municipality
Amnesty	14/05/04	DR Congo/Angola: forced repatriation leaves thousands destitute and facing human rights abuse
CRS	04/04	Inquerito nutricional e cobertura vicinal, municipio de Cubal, Provincia de Benguela, Angola
FEWS	12/04/04	Fews Angola food security update 12 Apr 2004: warning - urgent action required
IRIN	20/05/04	Angola-DRC: Luanda announces 45-day suspension of expulsions
MSF-S	03/04	Nutritional survey, IDP camps in Katjanguite and Fazemda Tomba-Matala, Huila province, Angola
MSF-S	03/04	Nutritional survey, Matala, Huila province, Angola
MSF	29/04/05	MSF concerns about ongoing deportation of diamond miners confirmed by joint assessment
OCHA	30/04/04	Humanitarian situation in Angola monthly analysis Apr 2004
OCHA	07/05/04	DR Congo: conditions for expellees stabilizing
UNHCR	21/05/04	Angola: repatriation from Namibia resumes
WFP	06/05/04	Angolans return home to peace - and hunger

### Zambia

UNHCR/	07/03	Baseline micronutrient and nutrition survey report, Nangweshi refugee camp, Zambia
ICH		
UNHCR/	03/04	Refugee health in Zambia, joint UNHCR-WHO evaluation of health and health programmes in refugee camps in Zambia.
WHO		
WHO	08/04/05	Disease outbreak reported: Meningococcal disease in Chad

## Asia

### Afghanistan

BAAG	31/03/04	BAAG Afghanistan monthly review, March 2004
FEWS	03/04	FEWS Afghanistan monthly food security bulletin Feb 2004- wheat growing season underway

### Pakistan

ACF-F	02/2004	Nutritional anthropometric survey, Badin district, province of Sindh, Pakistan
ACF-F	03/2004	Pakistan: situation nutritionnelle inquiétante pour des populations de la province de Sindh

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## Nepal

AFP	11/04/04	Close to 2,500 dead since end of Nepal truce: rights group
AMDA	08/01	Report of annual nutrition survey 2001
AMDA	06/02	Report of annual nutrition survey 2002
AMDA	06/03	Report of annual nutrition survey 2003
EC	2003	Conflict and food security in Nepal, a preliminary analysis
Field	10/98	Persistent micro-nutrient problems among refugees in Nepal
Exchange		
HRW	28/10/03	Nepal/Bhutan: bilateral talks fail to solve refugee crisis
ICRC	13/01/03	Népal: mission d'évaluation dans une zone de conflit
MOH/ORC	2001	Demographic and health survey in Nepal
Nepalnews	18/09/03	Pressure on cities
NRC	03/03	Training workshop on protecting IDPs and the UN guiding principles on internal displacement
NRC	10/10/03	Nepal: a hidden IDP crisis
RI	23/03/04	Forgotten people: the internally displaced people of Nepal
UNHCR/WHO	03/04	Refugee health in Nepal
WV	01-02/03	Rapid nutrition and food security assessment report, Mid-Western development region, Nepal

# Summary of the survey results

Survey Area	Date	Population	Survey conducted by	Acute Malnutrition* (%) (95% CI) <sup>§</sup>	Severe Acute Malnutrition** (%) (95% CI) <sup>§</sup>	Oedema (%)
<b>GREATER HORN OF AFRICA</b>						
<b>ERITREA</b>						
Anseba region (rural areas)	Dec-03	Resident	MOH/joint	13.9 (9.1-17.9)	2.7 -	1.8
Debub region (rural areas)	Dec-03	Resident	MOH/joint	12.8 (9.2-16.5)	3.7 -	2.6
Gash Barka (rural areas)	Dec-03	Resident	MOH/joint	15.6 (12.1-19.3)	3.2 -	2.3
Northern Red Sea (rural areas)	Dec-03	Resident	MOH/joint	16.9 (12.3-22.5)	3.5 -	2.6
<b>ETHIOPIA</b>						
<b>AMHARA REGION</b>						
Dessie Zuria District, South Wollo zone	Nov-03	Resident	Concern	12.0 (9.6-14.7)	0.5 (0.1-1.9)	0
Kalu district, South Wollo zone	Nov-03	Resident	Concern	9.9 (7.6-12.3)	0.3 (0.3-0.6)	0
Tehuldere district, South Wollo zone	Dec-03	Resident	DSA	7.5	- -	-
<b>SNNPR</b>						
Offa district, Wolaita zone	Dec-03	Resident	Concern	13.4 (10.4-17.0)	0.4 (0.0-1.8)	0
Dalocha woreda, Silti zone	Dec-03	Resident	SC-US	6.1 (4.7-7.9)	0.2 (0.0-0.9)	0
Lanfuro woreda, Silti zone	Dec-03	Resident	SC-US	9.7 (7.8-11.7)	1.2 (0.5-1.9)	0.2
Meskan woreda, Guraha zone	Nov-03	Resident	SC-US	9.1 (7.4-11.2)	1.0 (0.5-1.9)	0
Mareko woreda, Guraha zone	Nov-03	Resident	SC-US	12.8 (10.9-15.4)	1.0 (0.5-2.0)	0.2
Shebdino woreda, Sidama zone	Feb-04	Resident	GOAL/SC-US/ACF	7.8 (6.1-9.9)	0.3 (0.1-0.9)	0
<b>OROMYA REGION</b>						
Golo Oda district, East Haraghe zone	Dec-03	Resident	SC-UK	6.3 (4.1-8.5)	0.5 (0.1-1.0)	0.1
Meta and Kersa districts, East Haraghe zone	Jan-04	Resident	CRS	4.1 (2.9-5.7)	0.8 (0.3-1.7)	0.2
<b>SOMALI REGION</b>						
Gode district, Gode zone	Feb-04	Resident	SCF-US	21.4 (18.3-23.7)	2.8 (1.4-3.4)	0.7
Patoral areas of Ayshia, Shnile, Dembel & Erer districts, Shinile zone	Oct-03	Resident	SC-UK	11.1 (8.1-14.1)	0.9 (0.3-1.5)	0.1
Agro-pastoral areas of Erer, Shinile & Dembel districts, Shinile zone	Sep-03	Resident	SC-UK	11.2 (8.2-14.3)	0.8 (0.2-1.4)	0

\*Acute malnutrition (children aged 6-59 months): weight-height < - 2 Z-scores and/or oedema

\*\* Severe acute malnutrition (children aged 6-59 months): weight-height < - 3 Z-scores and/or oedema

<sup>§</sup>95% Confidence Interval; not mentioned if not available from the survey report

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Measles immunisation coverage (%)#		Micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) <sup>§</sup>	Under 5 Mortality (/10,000/day) (95% CI) <sup>§</sup>
Proved by card	Card + history					
-	85.5	-	94.9	BMI <sup>1</sup> < 16: 11 BMI <sup>1</sup> < 18.5: 50	-	-
-	93.8	-	97.1	BMI <sup>1</sup> < 16: 5 BMI <sup>1</sup> < 18.5: 42	-	-
-	90.2	-	94.5	BMI <sup>1</sup> < 16: 10 BMI <sup>1</sup> < 18.5: 45	-	-
59.3	-	-	88.4	BMI <sup>1</sup> < 16: 14 BMI <sup>1</sup> < 18.5: 50	-	-
24.6	72.6	-	-	-	-	-
54.8	85.8	-	-	-	-	-
-	81.5	-	-	-	-	-
7.7	39.9	-	-	-	0.52	1.04
2.0	87.1	-	-	-	0.62	1.9
2.6	56.3	-	-	-	0.73	1.9
7.9	91.2	-	-	-	-	-
2.4	96.7	-	-	-	0.6	1.9
9.3	73.2	-	-	-	0.39	0.81
0.0	43.6	-	-	-	0.75	1.44
43.6	77.6	-	-	-	0.82	2.04
14.5	81.4	-	-	-	1.23	3.76
0.1	4.7	-	-	-	-	-
0.2	9.4	-	-	-	-	-

# Measles vaccination coverage for children aged 9-59 months

NOTE: see at the end of the report for guidance in interpretation of indicators

<sup>1</sup> Women aged 18 to 60 years

Survey Area	Date	Population	Survey conducted by	Acute Malnutrition* (%) (95% CI) <sup>§</sup>	Severe Acute Malnutrition** (%) (95% CI) <sup>§</sup>	Oedema (%)
<b>KENYA</b>						
Kakuma, Lokichoggio & Oropoi divisions, Turkana district	Feb-04	Resident	OXFAM	16.8 (14.5-19.4)	1.8 (1.1-2.9)	0.1
Kaaleng, Kibish, Lapur & Lokitaung divisions, Turkana district	Feb-04	Resident	OXFAM	34.4 (31.3-37.4)	5.4 (4.0-7.0)	0
Kakuma refugee camp, Turkana district	Dec-03	Refugees	IRC	21.2 (18.6-24.1)	3.1 (2.1-4.5)	1.5
<b>SUDAN</b>						
Kutum town, Kutum province, North Darfur	Mar-04	Displaced/ Resident	SC-UK	12.6 (10.1-14.9)	0.8 (0.2-1.3)	0.2
Wade Saleh & Mukjar provinces, West Darfur	Apr-04	Displaced/ Resident	MSF-H	21.5 (18.5-23.9)	3.2 (1.9-4.2)	0.8
Wau town, Wau county, Western Bhar el Ghazal	Feb-04	Residents/ Displaced	ACF-F	9.4 (7.0-12.5)	0.9 (0.3-2.4)	-
Eastern Bank IDP camp, Wau county, Western Bhar el Ghazal	Feb-04	Residents/ Displaced	ACF-F	16.2 -	3.0 -	-
Bar Yar IDP camp, Wau county, Western Bhar el Ghazal	Feb-04	Residents/ Displaced	ACF-F	14.4 -	2.2 -	-
Marial Agieh IDP camp, Wau county, Western Bhar el Ghazal	Feb-04	Residents/ Displaced	ACF-F	19.6 -	2.1 -	-
Salvation IDP camp, Wau county, Western Bhar el Ghazal	Feb-04	Residents/ Displaced	ACF-F	5.9 -	0.0 -	-
IDP camps, Kassala state	Feb-04	Displaced	GOAL	12.1 -	0.8 -	0.1
Old Fandak district, Upper Nile	Mar-04	Resident	AAH-US	14.0 (10.6-18.1)	1.7 (0.7-3.8)	-
Kapoeta district, Eastern Equatoria	Jan-04	Resident	AAH-US	19.1 (15.2-23.5)	3.5 (2.0-6.1)	0
Atar, alam, Piji & Duk districts, Upper Nile	Nov-03	Resident	AAH-US	12.1 (9.3-15.6)	0.7 (0.1-2.1)	0
Nyadin district, Upper Nile	Oct-03	Resident/ Displaced	AAH-US	19.4 (15.6-23.7)	6.0 (4.0-9.0)	-
Mareang district, Upper Nile	Oct-03	Resident	AAH-US	17.8 (14.4-21.8)	4.9 (3.1-7.5)	1.8
Gumriak district, Upper Nile	Sep-03	Resident/ Displaced	AAH-US	15.7 -	4.6 -	1.5
<b>WEST AFRICA</b>						
<b>IVORY COAST</b>						
Bin Houye and Zouan Hounien Sous-préfecture, Danane department	Dec-03	Resident	ACF	4.3 (2.7-6.6)	0.5 (0.1-1.8)	0.1
<b>LIBERIA</b>						
Bomi and Grand Cape Mount counties	Mar-04	Resident/ Returnees	WV	4.1 (2.3-5.9)	0.9 (0.1-1.8)	0.3
Greater Monrovia	Nov-03	Resident/ Displaced	WFP/joint	6.9 (5.4-8.4)	0.9 (0.2-1.7)	-

\*Acute malnutrition (children aged 6-59 months): weight-height < - 2 Z-scores and/or oedema

\*\* Severe acute malnutrition (children aged 6-59 months): weight-height < - 3 Z-scores and/or oedema

<sup>§</sup>95% Confidence Interval; not mentioned if not available from the survey report



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Measles immunisation coverage (%)#		Micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) <sup>§</sup>	Under 5 Mortality (/10,000/day) (95% CI) <sup>§</sup>
Proved by card	Card + history					
29.6	66	-	38.6	MUAC <sup>2</sup> < 23 cm: 25.8 MUAC <sup>2</sup> < 20.7: 4.5	1.5	1.2
47.2	83.3	-	45.4	MUAC <sup>2</sup> < 23 cm: 42 MUAC <sup>2</sup> < 20.7: 10.9	2.1	2.6
-	74.3	See p 11	40.4	-	-	-
17.8	87.1	-	-	-	-	2.05 (1.4-2.7)
48.0	67.0	-	-	-	3.6 (2.7-4.6)	5.2 (1.8-2.6)
43.9	78.9	-	-	-	-	1.3
21.7	47.5	-	-	-	-	0.56
28.4	62.0	-	-	-	-	0.9
31.7	61.1	-	-	-	-	0.56
18.8	81.2	-	-	-	-	-
55.5	75.5	-	96	-	-	-
8.9	21.7	-	-	MUAC < 18.5 cm: 0 MUAC < 21.9 cm: 8.1	1.27	-
1.2	10.4	-	-	MUAC < 18.5 cm: 0.2 MUAC < 21.9 cm: 10.6	1.48	3.44
1.8	6.2	-	-	MUAC < 18.5 cm: 0.9 MUAC < 21.9 cm: 14.7	0.86	1.49
2.2	12.8	-	-	MUAC < 18.5 cm: 0.8 MUAC < 21.9 cm: 19.3	5.4	7.8
2.3	12.3	-	-	MUAC < 18.5 cm: 1.9 MUAC < 21.9 cm: 19.5	5.4	8.4
10.6	39.5	-	-	MUAC < 18.5 cm: 0.9 MUAC < 21.9 cm: 19.4	3.9	13.0
11.8	23.3	-	-	-	-	-
47.9	86.5	-	-	-	2.03	4.93
27.9	93.0	-	-	-	0.63	1.13

# Measles vaccination coverage for children aged 9-59 months

NOTE: see at the end of the report for guidance in interpretation of indicators

<sup>2</sup> Pregnant and lactating women aged 16-45 years

Survey Area	Date	Population	Survey conducted by	Acute Malnutrition* (%) (95% CI) <sup>§</sup>		Severe Acute Malnutrition** (%) (95% CI) <sup>§</sup>		Oedema (%)
Saybgeh IDP camp, Montserrado county	Nov-03	Displaced	SC/ACF-F	6.9	(5.4-8.4)	0.9	(0.2-1.7) -	-
Blamese IDP camp, Montserrado county	Nov-03	Displaced	SC/ACF-F	3.4	(1.7-6.5)	0.3	(0.0-2.2)	-
Plumkor IDP camp, Montserrado county	Nov-03	Displaced	SC/ACF-F	3.8	(1.7-6.5)	1.2	(0.4-2.9)	-
Ricks IDP camp, Montserrado county	Nov-03	Displaced	SC/ACF-F	6.3	(4.1-9.3)	1.5	(0.6-3.4)	-
Jahtondo IDP camp, Montserrado county	Nov-03	Displaced	SC/ACF-F	6.4	(4.4-9.2)	0.4	(4.4-9.2)	-
Perry IDP camp, Montserrado county	Nov-03	Displaced	SC/ACF-F	6.7	(4.1-10.7)	0.4	(0.1-2.4)	-
Wilson IDP camp, Montserrado county	Nov-03	Displaced	SC/ACF-F	7.8	(5.1-11.6)	0.6	(0.1-2.9)	-
<b>CENTRAL AFRICA</b>								
<b>DEMOCRATIC REPUBLIC OF THE CONGO</b>								
Nundu health zone, Fizzi area, South Kivu	Nov-03	Resident	AAH-US	15.7	(13.3-18.3)	3.0	(2.0-4.4)	1.1
Shabunda, South Kivu	Nov-03	Resident	AAH-US	7.4	(5.2-10.4)	1.6	(0.7-3.3)	1.6
Lemera, South Kivu	Nov-03	Resident	AAH-US	6.3	(4.3-9.1)	3.2	(1.8-5.4)	2.8
Moba & Kansimba health zones, Katanga	Oct-03	Resident	AAH-US	3.7	(2.2-6.0)	0.2	(0.0-1.4)	0
Basankusu health zone, Equateur	Feb-04	Resident	AAH-US	8.8	(6.4-12.0)	2.2	(1.1-4.1)	1.5
<b>UGANDA</b>								
Kalongo town, Pader district	Feb-04	Displaced/Resident	GOAL	4.7	(3.5-6.4)	0.7	(0.3-1.5)	0
Lira municipality, Lira district	Jan-04	Displaced	Epicentre	4.9	(3.2-7.1)	1.5	(0.6-2.9)	0.4
Palorinya refugee settlements	Mar-04	Refugees	ADEO	5.0	(3.2-7.5)	0.2	(0.0-1.4)	0
<b>SOUTHERN AFRICA</b>								
<b>ANGOLA</b>								
Caconda municipality, Huila province	Jan-04	Resident	ACH	3.1	(1.8-5.3)	0.8	(0.2-2.3)	0.4
Ganda municipality, Benguela province	Feb-04	Resident/Returnees	ACH	7.3	(5.2-10.2)	0.5	(0.1-1.8)	0.1
Katjanguite & Fazenda Tomba IDP camps, Matala, Huila province	Mar-04	Displaced	MSF-S	6.7	(5.1-8.4)	0.8	(0.1-1.4)	-
Matala, Huila province	Mar-04	Resident	MSF-S	4.8	(3.4-6.1)	0.2	(0.0-0.5)	-
Cubal municipality, Benguela province	Apr-04	Resident/Returnees	CRS	4.0	(2.4-6.4)	0.3	(0.0-1.6)	-
<b>ZAMBIA</b>								
Nangweshi refugee camp, Western province	Jul-03	Refugees	UNHCR/ICH	See NICS 1		See NICS 1		-
<b>ASIA</b>								
<b>PAKISTAN</b>								
Badin district, Sindh province	Feb-04	Resident	ACF-F	17.3	(14.0-21.3)	1.4	(0.6-3.2)	0
<b>NEPAL</b>								
Refugee camps	Jun-03	Refugees	AMDA	8.4	-	-	-	-
Refugee camps	Jum-02	Refugees	AMDA	7.9	-	-	-	-

\*Acute malnutrition (children aged 6-59 months): weight-height < - 2 Z-scores and/or oedema

\*\* Severe acute malnutrition (children aged 6-59 months): weight-height < - 3 Z-scores and/or oedema

<sup>§</sup>95% Confidence Interval; not mentioned if not available from the survey report

Continued...

Measles immunisation coverage (%)#		Micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) <sup>§</sup>	Under 5 Mortality (/10,000/day) (95% CI) <sup>§</sup>
Proved by card	Card + history					
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	43.8	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	45.5	-	-	-	1.42	2.93
-	55.8	-	-	-	1.0	3.2
17.4	48.2	-	-	-	1.5	2.1
26.0	96.1	-	-	-	1.9	2.2
-	83.9	-	-	-	-	-
-	67.6	-	53.1	-	1.07	3.07
-	88.0	-	56.9	-	1.36	4.02
-	64.1	-	-	-	1.1	2.4
-	67.2	-	-	-	0.7	1.5
-	-	-	6.6	-	0.59	1.52
-	-	See p 33	-	-	-	-
3.8	42.4	-	-	-	0.36	0.89
96.6	-	See p 36	98.4	-	-	-
98.9	-	See p 36	95.3	-	-	-

# Measles vaccination coverage for children aged 9-59 months

NOTE: see at the end of the report for guidance in interpretation of indicators

# Notes on the survey methodologies

## The Greater Horn region

### Eritrea

Four surveys were conducted in Anseba, Debub, Gash Barka and Northern Red Sea in December 2003. The samples were stratified multi-stage random samples. 1098, 1314, 1367 and 840 children were measured in Anseba, Debub, Garsh Bharka and Northern Red Sea, respectively. BMI was measured among women aged 18 to 60 years. The survey also estimated measles vaccination and vitamin A distribution coverage, and various food security indicators.

### Ethiopia

#### AMHARA REGION

##### DESSIE ZURIA DISTRICT, SOUTH WOLLO ZONE

The survey was conducted by Concern in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 936 children between 6-59 months. The survey also estimated measles vaccination coverage and various food security indicators.

##### KALU DISTRICT, SOUTH WOLLO ZONE

The survey was conducted by Concern in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 1052 children between 6-59 months. The survey also estimated measles vaccination coverage and various food security indicators.

##### TEHULDERE DISTRICT, SOUTH WOLLO ZONE

The survey was conducted by Development Studies Associate in December 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 923 children between 6-59 months. The survey also estimated measles vaccination coverage.

#### OROMYA REGION

##### GOLO ODA DISTRICT, EAST HARAGHE ZONE

The survey was conducted by SC-UK in December 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 915 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity and various food security indicators.

##### META AND KERSA DISTRICTS, EAST HARAGHE ZONE

The survey was conducted by CRS in January 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 901 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

#### SOMALI REGION

##### GODE DISTRICT, GODE ZONE

The survey was conducted by SC-US in February 2004. A two-stage cluster sampling methodology of 50 clusters was used to measure 925 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

##### PATORAL AND AGRO-PASTORAL AREAS OF AYSHIA, SHINILE, DEMBEL & ERER DISTRICTS, SHINILE ZONE

The surveys were conducted by SC-UK in October 2003. A two-stage cluster sampling methodology of 30 clusters was used. 893 and 898 children were measured in the pastoral and agro-pastoral areas, respectively. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

#### SNNPR

##### OFFA DISTRICT, WOLAITA ZONE

The survey was conducted by Concern in December 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 910 children between 6-59 months. The survey also estimated measles vaccination coverage, morbidity, retrospective mortality over the previous three months and various food security indicators.

##### DALOCHA DISTRICT, SILTI ZONE

The survey was conducted by SC-US in December 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 904 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

##### LANFURO DISTRICT, SILTI ZONE

The survey was conducted by SC-US in December 2003. A two-stage cluster sampling method-

ology of 30 clusters was used to measure 907 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

#### **MESKAN DISTRICT, GURAHE ZONE**

The survey was conducted by SC-US in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 942 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

#### **MAREKO DISTRICT, GURAHE ZONE**

The survey was conducted by SC-US in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 903 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

#### **SHEBEDINO DISTRICT, SIDAMA ZONE**

The survey was conducted by GOAL/SC-US/ACF in February 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 858 children between 6-59 months. The survey also estimated retrospective mortality over the previous three months, measles vaccination coverage, morbidity, and various food security indicators.

## **Kenya**

#### **NORTH WESTERN ZONE AND NORTH EASTERN ZONE, TURKANA DISTRICT**

Two surveys, using a two-stage cluster sampling methodology of 30 clusters, were conducted by OXFAM, in North Western zone (Kakuma, Lokichoggio & Oropoi districts) and North Eastern zone (Kaaleng, Kibish, Lapur & Lokitaung districts) of Turkana district, in February 2004. 950 and 944 children were measured in each zone, respectively. The surveys also estimated measles vaccination coverage, vitamin A distribution coverage, mortality rates over the previous three months and various food security indicators. MUAC was measured among pregnant and lactating women aged 16-45 years.

#### **KAKUMA REFUGEE CAMP**

The survey was conducted by IRC in December 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 890 chil-

dren between 6-59 months. The survey also estimated measles vaccination coverage, vitamin A distribution coverage and anaemia. Measurement of haemoglobin was performed directly in the household using a portable photometer 'Hemocue AB-hemoglobin' Photometer among 386 6-59 month-old children.

## **Sudan**

#### **KUTUM TOWN, KUTUM PROVINCE, NORTH DARFUR**

The survey was conducted by SC-UK in March 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 916 children between 6-59 months. The survey also estimated measles vaccination, morbidity and retrospective mortality rate.

#### **WADE SALEH AND MUKJAR PROVINCES, WEST DARFUR**

The survey was conducted by MSF-H in April 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 915 children between 6-59 months. The survey also estimated measles vaccination, morbidity and retrospective mortality rates over the previous 3 months.

#### **WAU TOWN AND IDP CAMPS**

The survey was conducted by ACF in February 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 978 children between 6-59 months in Wau town. Exhaustive surveys were carried out in the camps where 474, 270, 373, and 34 children 6-59 months were measured in Eastern Bank camp, Bar Yar camp, Marial Agieh camp and Salvation camp, respectively. The survey also estimated measles vaccination coverage and retrospective under-five mortality rate.

#### **IDP CAMPS, KASSALA STATE**

The survey was conducted by GOAL in February 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 894 children between 6-59 months. The survey also estimated measles vaccination and vitamin A coverage, morbidity, and various food security indicators.

#### **OLD FANGAK DISTRICT, CENTRAL UPPER NILE**

The survey was conducted by AAH-US in March 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 750 children between 6-59 months. The sample only

included villages situated within a 3 hours walk from AAH-US base. The survey also estimated measles vaccination coverage and retrospective mortality rate over the previous three months. MUAC was measured among the mothers.

#### **KAPOETA DISTRICT, KAPOETA COUNTY, EASTERN EQUATORIA**

The survey was conducted by AAH-US in January 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 761 children between 6-59 months. The sample only included villages situated within a 4 hours walk from Kapoeta town. The survey also estimated measles vaccination coverage and MUAC was measured among the mothers.

#### **ATAR, ALAM, PIJI AND DUK DISTRICTS, UPPER NILE**

The survey was conducted by AAH-US in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 917 children between 6-59 months. The sample only included villages situated within a 4 hours walk from Atak airstrip. The survey also estimated measles vaccination coverage and retrospective mortality rate over the previous three months. MUAC was measured among the mothers.

#### **MAREANG DISTRICT, CENTRAL UPPER NILE**

The survey was conducted by AAH-US in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 900 children between 6-59 months. The sample only included villages situated within a 4 hours walk from the airstrips. The survey also estimated measles vaccination coverage and retrospective mortality rate over the previous three months. MUAC was measured among the mothers.

#### **NYADIN DISTRICT, CENTRAL UPPER NILE**

The survey was conducted by AAH-US in October 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 810 children between 6-59 months. The sample only included villages situated within a 4 hours walk from the airstrips. The survey also estimated measles vaccination coverage and retrospective mortality rate over the previous three months. MUAC was measured among the mothers.

#### **GUMRIAK DISTRICT, RUWENG COUNTY, UPPER NILE**

The survey was conducted by AAH-US in September 2003. An exhaustive survey was used to measure 453 children between 6-59 months. The survey also estimated measles vaccination coverage and retrospective mortality rate over the previous three months. MUAC was measured among the mothers.

## **West Africa**

### **Ivory Coast**

#### **BIN HOUYE AND ZOUAN HOUNIEN SOUS-PRÉFECTURE, DANANE DEPARTMENT**

The survey was conducted by ACF in December 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 1005 children between 6-59 months. The sample only included villages situated within a ten kms radius from the supplementary feeding centres. The survey also estimated measles vaccination coverage.

### **Liberia**

#### **GREATER MONROVIA**

The survey was conducted by WFP/joint in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 867 children between 6-59 months. The survey also estimated measles vaccination coverage and mortality rates over the previous six months.

#### **IDP CAMPS, MONSERRADO COUNTY**

Seven surveys were conducted by SC/ACF in November 2003. Systematic sampling methodologies were used to measure 425 children in Blamase camp, 407 children in Jahtondo camp, 267 children in Perry camp, 398 children in Plumkor camp, 290 children in Saygbeh camp, 455 children in Ricks camp and 309 children in Wilson camp.

#### **BOMI AND GRAND CAPE MONT COUNTY**

The survey was conducted by WV in March 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 632 children between 6-59 months. The survey also estimated measles vaccination coverage, vitamin A distribution coverage and mortality rates over the previous six months using the previous birth history methodology.

## Central Africa

### DRC

#### NUNDU HEALTH ZONE, FIZZI AREA, SOUTH KIVU

The survey was conducted by AAH-US in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 900 children between 6-59 months. The survey also estimated measles vaccination coverage.

#### SHABUNDA, SOUTH KIVU

The survey was conducted by AAH-US in November 2003 and included Shabunda-Lungungu, Shabunda-Matili and Matili-Mugembe axes. A two-stage cluster sampling methodology of 30 clusters was used to measure 900 children between 6-59 months. The survey also estimated measles vaccination coverage.

#### LEMERA, SOUTH KIVU

The survey was conducted by AAH-US in November 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 932 children between 6-59 months. The survey also estimated measles vaccination coverage.

#### MOBA & KANSIMBA HEALTH ZONES, KATANGA

The survey was conducted by AAH-US in October 2003. A two-stage cluster sampling methodology of 30 clusters was used to measure 900 children between 6-59 months. The survey also estimated measles vaccination coverage and mortality rates over the previous three months.

#### BASANKUSU HEALTH ZONE, EQUATEUR

The survey was conducted by AAH-US in February 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 927 children between 6-59 months. The survey also estimated measles vaccination coverage and mortality rates over the previous three months.

### Uganda

#### KALONGO TWON, PADER DISTRICT

The survey was conducted by GOAL in February 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 890 children between 6-59 months. The survey also estimated measles vaccination coverage, mortality rates over the previous six months and various food security indicators.

#### LIRA MUNICIPALITY, LIRA DISTRICT

The survey was conducted by Epicentre in January 2004. A systematic sampling was used to measure 533 children in 9 IDP settlements. The survey also estimated measles vaccination coverage, mortality rates over the previous nine months and various food security indicators.

#### PALORINYA REFUGEE SETTLEMENTS, MOYO DISTRICT

The survey was conducted by ADEO in March 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 929 children between 6-59 months. The survey also estimated measles vaccination coverage.

## Southern Africa

### Angola

#### KATJANGUITE & FAZENDA TOMBA IDP CAMPS, MATALA, HUILA PROVINCE

The survey was conducted by MSF-S in March 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 921 children between 6-59 months. The survey also estimated measles vaccination coverage and mortality rates.

#### MATALA, HUILA PROVINCE

The survey was conducted by MSF-S in March 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 921 children between 6-59 months. The survey also estimated measles vaccination coverage and mortality rates.

#### CUBAL MUNICIPALITY, BENGUELA PROVINCE

The survey was conducted by CRS in April 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 900 children between 6-59 months. The survey also estimated vaccination and vitamin A distribution coverage and mortality rates over the previous three months.

#### GANDA MUNICIPALITY, BENGUELA PROVINCE

The survey was conducted by ACH in February 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 957 children between 6-59 months. The survey also estimated measles vaccination and vitamin A distribution coverage and mortality rates over the previous three months.

**CACONDA MUNICIPALITY, HUILA PROVINCE**

The survey was conducted by ACH in January 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 958 children between 6-59 months. The survey also estimated measles vaccination and vitamin A distribution coverage and mortality rates over the previous three months.

**Zambia****NANGWESHI REFUGEE CAMP, WESTERN PROVINCE**

The survey was conducted by UNHCR/ICH in July 2003. Households were selected using a systematic random sampling method.

Measurement of haemoglobin was performed directly in the household using a portable photometer 'Hemocue B-hemoglobin' Photometer, utilising the azidemethemoglobin principle. Peripheral blood collection was collected from a finger prick made using a safety lancet (Hemocue). The first drop was allowed to form and wiped away using tissue paper. The second drop was then transferred into a Hemocue cuvette for the measurement of haemoglobin. The cuvette was filled from one drop using a continuous action and any blood was wiped away from the faces of the cuvette before immediate insertion into the photometer.

**CUT-OFF POINTS FOR DEFINING ANAEMIA**

Age / sex group	Total	Categories of Anaemia		
		Mild (Haemoglobin levels (g/dl))	Moderate	Severe
Children 6 - 59 months	<11.0	10.9 - 10.0	9.9 - 7.0	< 7.0
Children 6 - 11 years	<11.5	11.4 - 11.0	10.9 - 8.0	< 8.0
Children 12 - 14 years	<12.0	11.9 - 11.0	10.9 - 8.0	< 8.0
Adult males $\geq$ 15 years	<13.0	12.9 - 11.0	10.9 - 8.0	< 8.0
Adult females $\geq$ 15 years	<12.0	11.9 - 11.0	10.9 - 8.0	< 8.0
Pregnant Women	<11.0	10.9 - 10.0	9.9 - 7.0	< 7.0

Vitamin A status was assessed by the measurement of serum retinol in finger-stick blood samples. Analysis was performed using High Performance Liquid Chromatography (HPLC). It is well known that vitamin A status can be affected by the presence of infection. This can lead to levels appearing to be lower than otherwise and

can result in people with marginal status being falsely classified as deficient. To allow correction for this effect serum samples were analyzed for the presence of elevated levels of C-reactive protein (CRP) using a test involving antibody binding (ELISA). This protein is increased in the blood during trauma and infection and has been used previously to correct measured levels of vitamin A levels for the presence of infection. 10 mg/L was used as a cut-off point for the diagnosis of inflammation and retinol results was discarded from subjects with levels of 10 mg/L or higher.

Survey teams collected urine from consenting adolescents in 100 ml collection cups. The urine was then transferred from the collection cups into a 10 ml Monovette urine collection tube or and labelled with the appropriate identification number of the adolescent. Urine tubes were stored in plastic bags at 0 - 8 Celsius until the end of the day when they were transferred into 5 ml Nalgene cryovials and frozen at -20°C. Urinary iodine was measured according to routinely used techniques. An AutoAnalyzer II method was used with automatic handling of the samples, digestion with strong acid, and quantified with the Sandell-Kolthoff colorimetric reaction.

**Asia****Pakistan****BADIN DISTRICT, SINDH PROVINCE**

The survey was conducted by ACF in February 2004. A two-stage cluster sampling methodology of 30 clusters was used to measure 900 children between 6-59 months. The survey also estimated measles vaccination coverage and mortality rates over the previous seven months.

**Nepal****BHUTANESE REFUGEE CAMPS**

The surveys were conducted by AMDA in June 2002 and June 2003. A systematic sampling was used to measure 429 children in 2002 and 439 children in 2003. The surveys also estimated measles vaccination and vitamin A coverage, the prevalence of clinical signs of angular stomatitis and various food security indicators.



## Abbreviation and acronyms

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AAH-USA	Action Against Hunger USA
ACF-F	Action Contre la Faim France
ACH-S	Action Contra El Hambre Spain
ADEO	African Development and Emergency Organisation
AFP	Agence France Presse
BAAG	British Agencies Aghanistan Group
BMI	Body Mass Index
CMR	Crude Mortality Rate
< 5 MR	Under-five Mortality Rate
CRS	Catholic Relief Service
DSA	Development Studies Associate
EC	European Community
ENFS	Ethiopia Network on Food Security
FAO	Food & Agricultural Organization of the United Nations
FEWS	Famine Early Warning System
FSAU	Food Security Assessment Unit for Somalia
GW	Global Witness
HRW	Human Rights Watch
ICG	International Crisis Group
ICH	Institute of Child Health
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
IRC	International Rescue Committee
IRIN	International Regional Information Network
MOH	Ministry of Health
MSF	Médecins Sans Frontières
MSF-B	Médecins sans frontières - Belgique
MSF-H	Médecins sans frontières - Holland
MSF-S	Médecins sans frontières - Spain
MUAC	Mid-upper arm circumference
NGO	Non-governmental Organisation
NRC	Norwegian Refugee Council
OCHA	Office for the Co-ordination of Humanitarian Assistance
RI	Refugees International
SC-UK	Save the Children-United Kingdom
SC-US	Save the Children-United States
UNCHR	United Nations Commission on Human Rights
UNCT	United Nations Country Team
UNHCR	United Nations High Commission on Refugees
UNICEF	United Nations International Children's Emergency Fund
UNRC	United Nations Resident Coordinator
UNSC	United Nations Security Council
UNSG	United Nations Secretary General
URD	Urgence-Réhabilitation-Développement
USAID	US Agency for International Development
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization

# Indicators, interpretation and classification

The methodology and analysis of nutrition and mortality surveys are checked for compliance with internationally agreed standards (SMART, 2002; MSF, 2002; ACF, 2002).

Most of the surveys included in the Reports on Nutrition Information in Crisis Situations are random sampled surveys, which are representative of the population of the targeted area. The Reports may also include results of rapid nutrition assessments, which are not representative of the target population but rather give a rough idea of the nutrition situation. In that case, the limitations of this type of assessments are mentioned. Most of the nutrition survey results included in the Reports target children between 6-59 months but may also include information on other age groups, if available.

Detailed information on the methodology of the surveys which have been reported on in each issue, is to be found at the end of the publication.

## Nutrition indicators in 6-59 month olds

Unless specified, the Reports on Nutrition Information in Crisis Situations use the following internationally agreed criteria:

- . **WASTING**, defined as weigh-for-height index (w-h) < -2 Z-scores.
- . **SEVERE WASTING**, defined as weigh-for-height index < -3 Z-scores.
- . **OEDEMATOUS MALNUTRITION OR KWASHIORKOR**, diagnosed as bilateral pitting oedema, usually on the upper surface of the feet. Oedematous malnutrition is always considered as severe malnutrition.
- . **ACUTE MALNUTRITION**, defined as the prevalence of wasting (w-h < -2 Z-scores) and/or oedema
- . **SEVERE ACUTE MALNUTRITION**, defined as the prevalence of severe wasting (w-h < -3 Z-scores) and/or oedema.
- . **STUNTING** is usually not reported, but when it is, these definitions are used: stunting is defined as < -2 Zscores height-for-age, severe stunting is defined < -3 Zscores height-for-age.
- . **MID-UPPER-ARM CIRCUMFERENCE (MUAC)** is sometimes used to quickly assess nutrition situations. As there is no international agreement on MUAC cut-offs, the results are reported according to the cut-offs used in the survey.
- . **MICRO-NUTRIENT DEFICIENCIES**  
Micro-nutrient deficiencies are reported when data are available.

## Nutrition indicators in adults

No international consensus on a definitive method or cut-off to assess adult under-nutrition has been reached (SCN, 2000). Different indicators, such as Body Mass Index (BMI, weight/height<sup>2</sup>), MUAC and oedema, as well as different cut-offs are used. When reporting on adult malnutrition, the Reports always mention indica-

tors and cut-offs used by the agency providing the survey.

## Mortality rates

In emergency situations, crude mortality rates and under-five mortality rates are usually expressed as number of deaths/10,000 people/day.

## Interpretation of indicators

Prevalence of malnutrition and mortality rates are late indicators of a crisis. Low levels of malnutrition or mortality will not indicate if there is an impending crisis. Contextual analysis of health, hygiene, water availability, food security, and access to the populations, is key to interpret prevalence of malnutrition and mortality rates.

Thresholds have been proposed to guide interpretation of anthropometric and mortality results.

A prevalence of acute malnutrition between 5-8% indicates a worrying nutritional situation, and a prevalence greater than 10% corresponds to a serious nutrition situation (SCN, 1995). The Crude Mortality Rate and under-five mortality rate trigger levels for alert are set at 1/10,000/day and 2/10,000/day respectively. CMR and under-five mortality levels of 2/10,000/day and 4/10,000/day respectively indicate a severe situation (SCN, 1995).

Those thresholds have to be used with caution and in relation to contextual analysis. Trend analysis is also recommended to follow a situation: if nutrition and/or mortality indicators are deteriorating over time, even if not above threshold, this indicates a worsening situation.

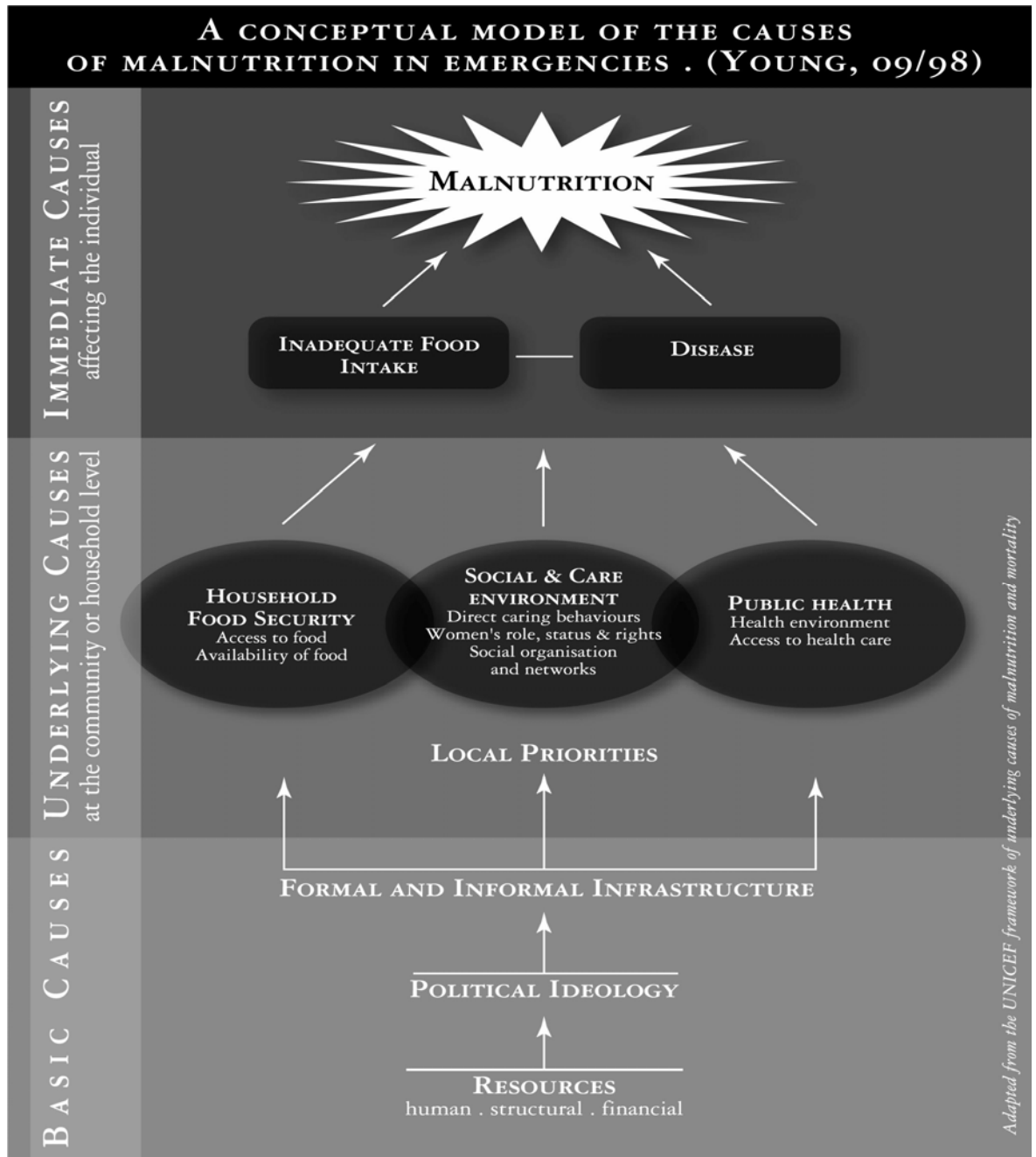
## Classification of situations

In the Reports, situations are classed into five categories relating to risk and/or prevalence of malnutrition. The prevalence/risk is indirectly affected by both the underlying causes of malnutrition, relating to food, health and care, and the constraints limiting humanitarian response. These categories are summations of the causes of malnutrition and the humanitarian response:

- Populations in *category I* – the population is currently in a critical situation; they either have a *very high risk* of malnutrition or surveys have reported a very high prevalence of malnutrition and/or elevated mortality rates.
- Populations in *category II* are currently at *high risk* of becoming malnourished or have a high prevalence of malnutrition.
- Populations in *category III* are at *moderate risk* of malnutrition or have a moderately high prevalence of malnutrition; there maybe pockets of high malnutrition in a given area.
- Populations in *category IV* are *not* at an elevated nutritional risk.
- The risk of malnutrition among populations in *category V* is *not known*.

## Nutrition causal analysis

The Reports on Nutrition Information in Crisis Situations have a strong public nutrition focus, which assumes that nutritional status is a result of a variety of inter-related physiological, socio-economic and public health factors (see figure). As far as possible, nutrition situations are interpreted in line with potential underlying determinants of malnutrition.



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## NICS quaterly reports

The UN Standing Committee on Nutrition, which is the focal point for harmonizing nutrition policies in the UN system, issues these Reports on Nutrition Information in Crisis Situations with the intention of raising awareness and facilitating action. The Reports are designed to provide information over time on key outcome indicators from emergency-affected populations, play an advocacy role in bringing the plight of emergency affected populations to the attention of donors and humanitarian agencies, and to identify recurrent problems in international response capacity. The Reports on Nutrition Information in Crisis Situations are aimed to cover populations affected by a crisis, such as refugees, internally displaced populations and resident populations.

This system was started on the recommendation of the SCN's working group on Nutrition of Refugees and Displaced People, by the SCN in February 1993. Based on suggestions made by the working group and the results of a survey of the readers, the Reports on Nutrition Information in Crisis Situations are published every three months.

Information is obtained from a wide range of collaborating agencies, both UN and NGOs. The Reports on Nutrition Information in Crisis Situations are put together primarily from agency technical reports on nutrition, mortality rates, health and food security. The Reports provide a brief summary on the background of a given situation, including who is involved, and what the general situation is. This is followed by details of the humanitarian situation, with a focus on public nutrition and mortality rates. The key point of the Reports is to interpret anthropometric data and to judge the various risks and threats to nutrition in both the long and short term.

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The SCN Secretariat and the NICS Coordinator extend most sincere thanks to all those individuals and agencies who have provided information and time for this issue, and hope to continue to develop the excellent collaboration which has been forged over the years.

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If you have information to contribute to forthcoming reports, or would like to request back issues of the report, please contact:

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Funding support is gratefully acknowledged from CIDA and UNHCR.

This report was made possible through the support provided to the Food and Nutrition Assistance (FANTA) Project by the Office of Program, Policy and Management at the Bureau for Democracy, Conflict and Humanitarian Assistance and the Office of Health, Infectious Diseases and Nutrition at the Bureau for Global Health at the U.S. Agency for International Development, under the terms of Cooperative Agreement No. HRN-A-00-98-00046-00 awarded to the Academy for Educational Development (AED). The opinions expressed herein are those of the authors and do not necessarily reflect the views of the US Agency for International Development.

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