

Nutrition Information in Crisis Situations



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GREATER HORN OF AFRICA

ETHIOPIA 3

KENYA 4

SOMALIA 5

SUDAN 7

WEST AFRICA

NIGER 9

CENTRAL AFRICA

BURUNDI 11

CENTRAL AFRICAN REPUBLIC 12

DEMOCRATIC REPUBLIC OF CONGO 13

ASIA

BANGLADESH 14

REFERENCES 15

RESULTS OF SURVEYS 17

SURVEY METHODOLOGY 29

ABBREVIATIONS AND ACRONYMS 32

INDICATORS AND RISK CATEGORIES 33



Highlights

SOMALIA—DISPLACEMENT CONTINUES AMID ONGOING HOSTILITIES—Intensified fighting broke out in Mogadishu on October 27th, aggravating an already precarious humanitarian situation. According to UNHCR, an estimated 200,000 people fled the city in the two weeks following the new wave of violence, bringing the total displaced since February 2007 to 600,000. Food availability and access have been restricted throughout the country due to the rapid devaluation of the Somali shilling, increased transportation costs, and conflict related disruptions in commerce. Uncontrolled inflation has pushed prices for staple foods beyond the reach of many IDPs and poor households.

SUDAN—FLOODS AND CONFLICT THREATEN FOOD SECURITY—Inter-ethnic clashes between Murle and Dinka groups in Jonglei State killed 34 people and wounded almost 100 people in November and early December. The full effect of the August 2007 floods is not yet clear. Some areas are expected to have a near-normal harvest, with food production adequate to fulfill household needs at least until February 2008. On the other hand, certain regions, such as the Nile-Sobat and Eastern Flood Plains zones, were harder hit and the most vulnerable were expected to start experiencing food shortages in October, although it is anticipated that they will at least partially recover once flood waters recede leaving behind a good water supply, pastures, and improved fishing. Attacks targeting humanitarian staff, as well as unchecked banditry, are hampering aid activities in all three states of Darfur. Major cities excepting, most agencies are forced to travel by helicopter, limiting what areas are accessible. Initial results of a joint U.N. and Government of National Unity (GNU) Emergency Food Security and Nutrition Assessment showed that the situation in Darfur rests quite serious.

CENTRAL AFRICAN REPUBLIC—NUTRITION SITUATION FOR REFUGEES IN CAMEROON CRITICAL—The security situation has become increasingly volatile, especially in the northwestern part of the country. An estimated 299,000 people have been displaced since the beginning of 2007, including 79,000 who have fled to neighboring countries. Nutrition surveys conducted among Central African refugees in Cameroon reveal the prevalence of acute malnutrition to be above emergency levels.

NIGER —GRAIN HARVEST EXPECTED TO BE INSUFFICIENT—Plentiful rainfall in August partially offset the early and abrupt end to the rainy season in September. It is still not entirely clear how the harvest will be affected, but it is generally expected that some areas will be negatively impacted with grain output predicted to be insufficient in nearly 1,500 villages. A GoN/joint nutrition survey found the country-wide prevalence of acute malnutrition to be 11.2% among children 6-59 months. However, wide regional disparities exist and many areas are still facing serious to critical nutrition situations.

BANGLADESH—CYCLONE SIDR WREAKS HAVOC—On November 15th a Category-4 Super Cyclone hit the Southwest coast of Bangladesh. Peak winds were recorded at up to 250 km/hour. The storm weakened as it travelled north and east through the country, but subsequent damage was reported in as many as 30 of Bangladesh's 64 districts, although the regions of Barisal and Khulna were the hardest hit. An estimated 7 million people were affected by the cyclone; of those, 2.7 million people required immediate life and livelihood saving intervention from external sources.

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.

	ETHIOPIA 3 woredas from Wolayta Zone	SOMALIA Lower and Middle Shabelle Regions	SOUTH SUDAN Lankien and Tut Payams, Nyriol County, Jonglei State	CAMEROON Refugees from CAR, Adamaoua and Eastern Province	NIGER Tahoua and Illéla districts, Tahoua Region
Nutritional risk category	IV	I	I/II	I	II/III
FOOD SECURITY					
Households' livelihoods	☹️	☹️	☹️	☹️	☹️
External assistance	☹️	☹️	☹️	☹️	☹️
PUBLIC HEALTH ENVIRONMENT					
Availability of water and access to potable drinking water	☹️	☹️	☹️	☹️	☹️
Health care	☹️	☹️	☹️	☹️	☹️
Sanitation	☹️	☹️	☹️	☹️	☹️
SOCIAL AND CARE ENVIRONMENT					
Social environment	☹️	☹️	☹️	?	☹️
Child feeding practices	?	☹️	☹️	?	☹️
DELIVERY OF ASSISTANCE					
Accessibility to population	😊	☹️	☹️	☹️	😊
Resources for humanitarian Intervention	?	☹️	☹️	☹️	☹️
Availability of information	☹️	☹️	☹️	☹️	😊

😊 ADEQUATE

☹️ MIXED

☹️ INADEQUATE

Greater Horn of Africa

Ethiopia

Despite better than average rains in many parts of the country and predictions for an overall improved food security situation, 8 million people face chronic food insecurity and are dependent on food and cash assistance from the GoE, while an additional 1.3 million people are in need of emergency food assistance (FEWS, 10/07).

In the Somali region, restrictions to trade and movement, coupled with recent flooding, have complicated humanitarian efforts to reach the most vulnerable. UN partners were coordinating activities, and at last count, 5,000 tonnes of food had been distributed to nearly 1 million people living in the 5 zones affected by military operations (OCHA, 19/11/07). It is anticipated that restrictions will soon be at least partially lifted, which in turn should improve access to markets and stimulate commerce.

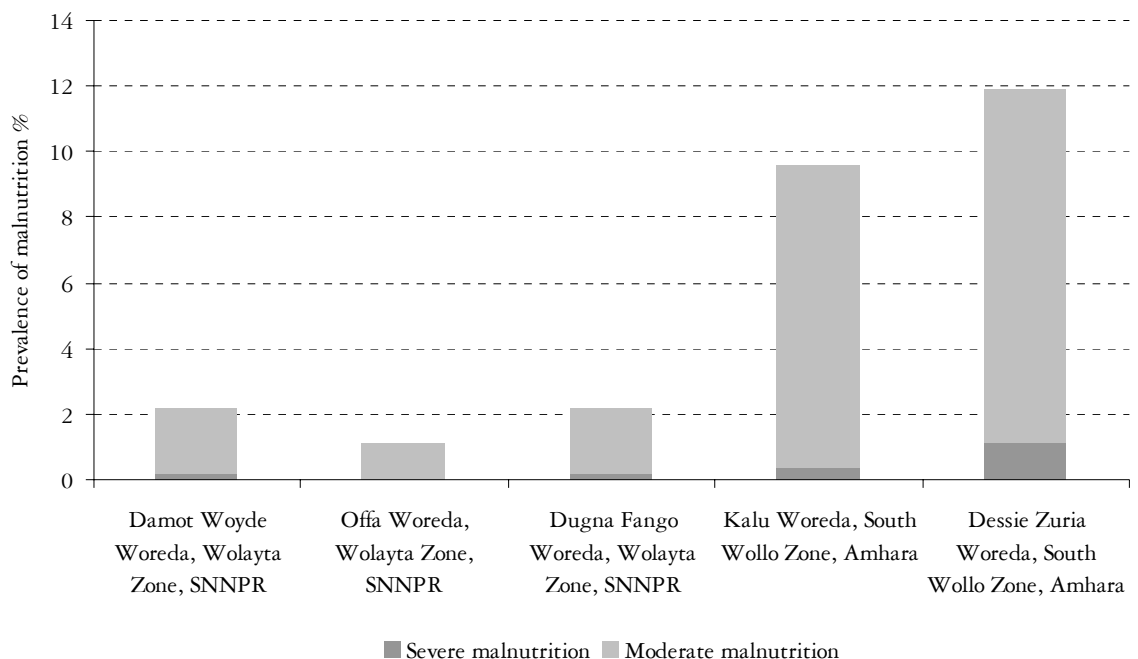
A series of surveys conducted in the Wolayta region of SNNPR by Concern in June 2007 revealed very low rates of acute malnutrition (figure 1), consistent with survey results from the same time last year (Concern, 06/07). Most of those interviewed described the December 2006 *meher* harvest as good and many reported that they still had reserve food stocks.

Two other surveys by Concern in October 2007 in the South Wollo zone, Amhara region, show a more serious nutrition situation (figure 1). Over 1/3 of those included in the studies benefited from some type of food security initiative (Concern, 10/07).

A UNHCR/joint survey of all refugee camps in May/June 2007 indicates that the nutrition situation, on the whole, has either improved or stayed the same as compared to this time last



FIGURE I RESULTS OF NUTRITION SURVEYS, ETHIOPIA, JUNE-OCTOBER 2007 (CONCERN)



year. The prevalence of acute malnutrition ranged from 4%-13.5% in the 6 camps surveyed (UNHCR, 06/07) (table 1). The prevalence of anemia was found to be high among children under 5 and pregnant women and it was recommended that iron-fortified food be

included in either the general ration or as a special supplement (table I).

TABLE I PREVALENCE OF ACUTE MALNUTRITION AND ANEMIA, ETHIOPIAN REFUGEE CAMPS, MAY-JUNE 2007 (UNHCR, 07/07)

Survey Area	Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)		Oedema (%)	Under 5 Mortality (/10,000/day) (95% CI)	Anemia (%) (Hemoglobin < 11.0 g/dL)	
						CHILDREN <5	PREGNANT WOMEN
Sherkole Refugee Camp	7.0 (5.0-9.0)	1.1	0.3-2.0	0.1	0.92 (0.22-1.61)	36.8	NA
Fugnido (Nure) Refugee Camp	9.7 (6.7-12.7)	0.9	0.3-1.5	0.0	0.37 (0.02-0.72)	67.5	37.5
Fugnido (Anyuak) Refugee Camp	8.6 *	0.4	*	0.0	1.35 *	64.2	55.3
Bonga Refugee Camp	4.0 (2.4-5.6)	0.4	0.1-1.0	0.0	-	57.3	NA
Shimelba Refugee Camp	13.5 *	1.1	*	0.1	0.1 *	34.0	34.5
K/Beyah Refugee Camp	10.4 (8.2-12.7)	1.1	0.2-2.1	0.0	0.31 (0.18-0.8)	51.0	42.3

*Exhaustive study

Kenya

As of November 2007, the short rainy season had begun throughout the country and the supply of maize was predicted to be enough to meet domestic demand in the coming months (FEWS, 11/07).

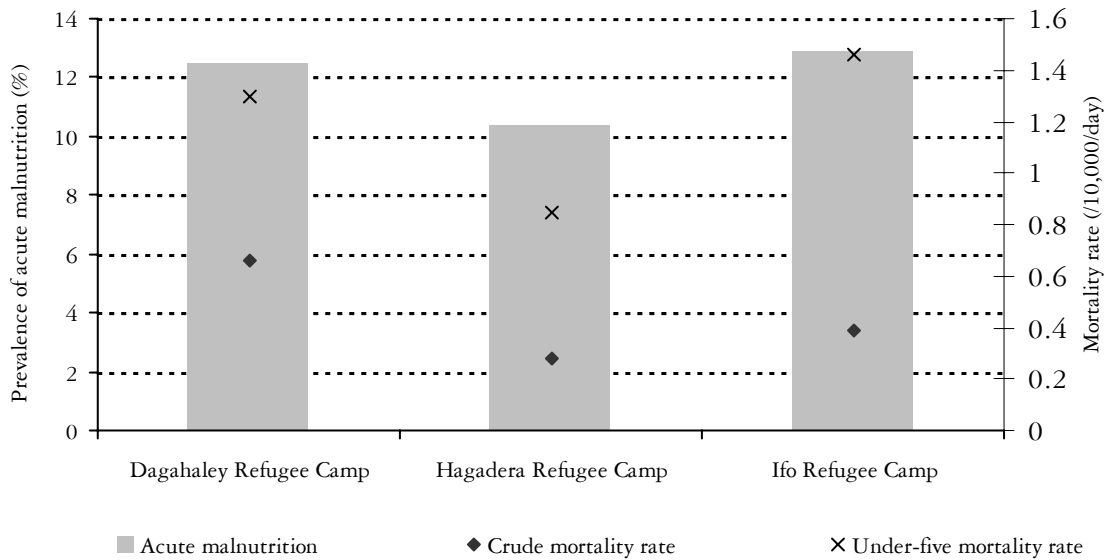
Pastoralist regions in the northwest received early rainfall in October, providing much needed relief after poor rainfall earlier in the year. However, ongoing conflict in the area has closed both schools and markets, leaving the population vulnerable to food insecurity

and malnutrition (FEWS, 11/07).

Rains were late or sporadic in some parts of the country, notably the southeast and coastal marginal agricultural regions. Already stricken by prolonged drought, the food security situation is at risk of deteriorating further if adequate rainfall is not received (FEWS, 11/07).

Nutrition surveys carried out by GTZ in August 2007 in the three Dadaab refugee camps in northern Kenya showed that the situation, while still serious, has markedly improved

FIGURE 2 RESULTS OF NUTRITION SURVEYS, DADAAB REFUGEE CAMPS, KENYA, AUGUST 2007 (GTZ/UNHCR, 08/07)



since similar surveys were carried out at the same time last year (figure 2). Mortality rates were all within acceptable range (GTZ, 08/07).

Vaccination rates were high in all of the camps. At the same time, levels of anemia among both mothers and children were much higher than

WHO recommended cut-offs, ranging between 52.0-62.4% (mothers) and 77.4-84.1% (children). Approximately 2/3 of survey participants reported consuming at least two meals per day.

Somalia

Intensified fighting broke out in Mogadishu on October 27th, aggravating an already precarious humanitarian situation. According to UNHCR, an estimated 200,000 people fled the city in the two weeks following the new wave of violence, bringing the total displaced since February 2007 to 600,000 (UNHCR, 20/11/07).

Many of those displaced left for areas surrounding the capital, most notably Middle and Lower Shabelle. Already suffering the compounded effects of prolonged drought, a failed *Gu* harvest, and economic instability, the regions are poorly equipped to cope with this latest influx of people. Heightened insecurity has also hampered humanitarian access to the population.

Food availability and access have been restricted throughout the country due to the rapid devaluation of the Somali shilling, increased transportation costs, and conflict related disruptions in commerce. Uncontrolled inflation has pushed prices for staple foods beyond the reach of many IDPs and poor households (FEWS, 11/07). In addition, this year's *Deyr* rainy season has so far been irregular, with some areas receiving near-normal quantities and others receiving little or no rain. Parts of central Somalia are already signalling lower than average rainfall patterns, which is of particular concern as it is host to an increasing number of IDPs. If the current trend continues, the overall food security situation is likely to deteriorate even further throughout the country.

Nutrition situation in Shabelles remains alarming

Two nutrition surveys conducted in early November show that the nutrition situation in the Shabelle regions continues to be critical, with the prevalence of acute malnutrition ranging between 14.0-17.6% (FSAU, 19/11/07) (table 2). These figures are comparable to the prevalence found in surveys done in May 2007 (NICS 14).

The first detailed nutrition survey to be conducted among recently displaced persons in Afgoye and Merka, towns just outside of Mogadishu, also found elevated rates of malnutrition. The proportion of those severely malnourished was especially high, at 3.2% (FSAU, 19/11/07) (table 2).

Pockets on malnutrition still exist in North

While the situation in the North of the country is considered more stable, there are still some areas of concern. Hundreds of displaced families from Sool arrived in NE Puntland at the end of October after being overrun by forces loyal to the self-declared republic of Somaliland. Many were said to be in urgent need of food, shelter, clean water, and medicines (IRIN, 25/10/07).

Nutrition surveys conducted in Somaliland among IDPs and returnees in Hargesia, Burao, and Berbera indicate that the situation remains more or less unchanged from surveys conducted at the same time last year. It should be noted that the prevalence of acute malnutrition in both Burao and Berbera are above emergency thresholds (figure 3). Inadequate infant

TABLE 2 RESULTS OF NUTRITION SURVEYS, SOMALIA, 2007 (FSAU, 09/07; FSAU 10-11/07)

Survey Area	Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)	Oedema (%)	Crude Mortality (/10,000/day) (95% CI)	Under 5 Mortality (/10,000/day) (95% CI)
MIDDLE AND LOWER SHABELLE					
Riverine livelihood zone	14.0 (11.2-16.7)	2.9 (1.6-4.1)	0.8	1.27 (1.13-2.41)	2.02 (1.07-2.97)
Agro-pastoral livelihood zone	17.6 (13.3-21.3)	3.2 (1.7-4.6)	0.4	0.42 (0.22-0.62)	0.95 (0.42-1.47)
Afgoye and Merka	15.2 (11.7-18.6)	3.2 (1.9-4.5)	0.9	1.45 (0.97-1.93)	2.95 (1.55-4.34)
BAKOOL					
Wajid and surrounding areas	14.3 (10.5-18.1)	0.8 (0.2-1.5)	-	0.57 (0.24-0.9)	1.55 (0.44-2.66)
CENTRAL AND NORTHEAST REGIONS					
Hawd pastoral livelihood zone	17.2 (14.1-20.5)	1.3 (0.55-2.1)	0.1	0.36 (0.14-0.58)	-
Addun pastoral livelihood zone	15.9 (12.8-18.9)	1.7 (0.8-2.6)	0.2	0.82 (0.38-1.25)	-

and child feeding practices, as well as water and sanitation services, were identified as needing improvement.

Stable but worrying situation in Bakool and Central Regions

A nutrition survey conducted in Wajid town and surrounding areas, Bakool region, show serious levels of malnutrition, although these results are similar to those found in the last survey conducted in February (FSAU, Oct/Nov 07) (table 2).

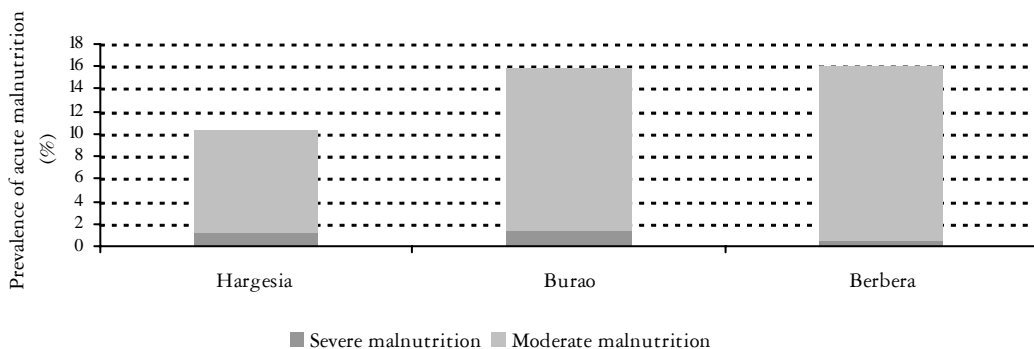
Hawd and Addun pastoral livelihood, spanning from Galgadud and Madug to southern Nugul regions, were surveyed in November 2007 and the results revealed a critical nutrition situation (table 2). The prevalence of

acute malnutrition was found to be 15.9% (12.8-18.9) and 17.2% (14.1-20.5) respectively, which are slightly higher than earlier data from sentinel sites and rapid assessments suggested (FSAU, Oct/Nov 07). People were found to have access to a diverse range of foods, in part due to wide scale food distributions. However, access to clean water and sanitation facilities were poor, immunization rates low, and health services inadequate.

Overall

Irregular rains, economic instability, and continued insecurity are exacerbating an already precarious humanitarian situation.

FIGURE 3 RESULTS OF NUTRITION SURVEYS, SOMALIA, 2007 (FSAU, 09/07)



Sudan

Inter-ethnic clashes between Murle and Dinka groups in Jonglei State killed 34 people and wounded almost 100 people in November and early December 2007. Following a confrontation in an MSF-compound in Bor on November 29, 2007 that left 4 civilians dead and another wounded, humanitarian staff were evacuated to Juba. As a result of the fighting, UNHCR temporarily suspended repatriation efforts in the area (USAID, 12/07).

The full effect of the August 2007 floods is not yet clear. Some areas are expected to have a near-normal harvest, with food production adequate to fulfill household needs at least until February 2008 (FEWS, 11/07). On the other

hand, certain regions, such as the Nile-Sobat and Eastern Flood Plains zones, were harder hit. The most vulnerable were expected to start experiencing food shortages in October, although it is anticipated that they will at least partially recover once flood waters recede leaving behind a good water supply, pastures, and improved fishing. However, the food security outlook was less optimistic for Bieh county. In addition to extensive flooding, it is also troubled by poor infrastructure, low market access, and continual loss of assets, mainly cattle theft by rival clans.

An outbreak of Rift Valley fever was reported in the states of White Nile, Sennar, and Gazeera in mid-October. According to WHO,

436 human cases, including 161 deaths, had been confirmed as of November 21, 2007. As the disease also affects animals, the outbreak could have potential consequences for those whose livelihoods depend on livestock and every effort was being made to contain the epidemic (WHO, 11/07).

TABLE 3, PREVALENCE OF ACUTE MALNUTRITION , SOUTH SUDAN (AAH-US, 09/07; ACF-F, 10/07)

Survey Area	Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)	Oedema (%)
JONGLEI STATE			
Lankien and Tut Payams, Nyriol County	17.3 (13.7-20.8)	0.8 (0.1-1.4)	0.3
UNITY STATE			
Bentiu and Rob Kona Towns	20.5 (17.0-24.6)	2.6 (1.4-4.7)	0.0

AAH-US conducted a survey in Nyriol county, Jonglei State, in September 2007, which showed the nutrition situation to be critical (table 3). The local situation during the survey was perturbed by both insecurity and flooding. The survey team reported that most of the farms they observed had suffered some kind of flood damage. As 86.7% of those surveyed reported private production as their main source of food, the loss of crops is sure to have an impact (AAH-US, 09/07). Surface runoff and rain water were cited as the main source of water for the majority of the population and no latrines were observed in any of the households surveyed .

A nutrition survey was also done in Bentiu and Rob Kona towns in October 2007, this one by ACF-F (table 3). The prevalence of malnutrition was 20.5% (C.I. 17.0-24.6), a figure not statistically different from prior ACF surveys conducted during similar periods (ACF-F, 10/07). The majority of the population reported buying their food from the market, although some vulnerable households were still

receiving targeted food aid through WFP food-for-rehabilitation programs. The average duration of exclusive breastfeeding was given as 3.6 months.

Darfur

Attacks targeting humanitarian staff, as well as unchecked banditry, are hampering aid activities in all three states of Darfur. Major cities excepting, most agencies are forced to travel by helicopter, limiting what areas are accessible (USAID, 20/12/07).

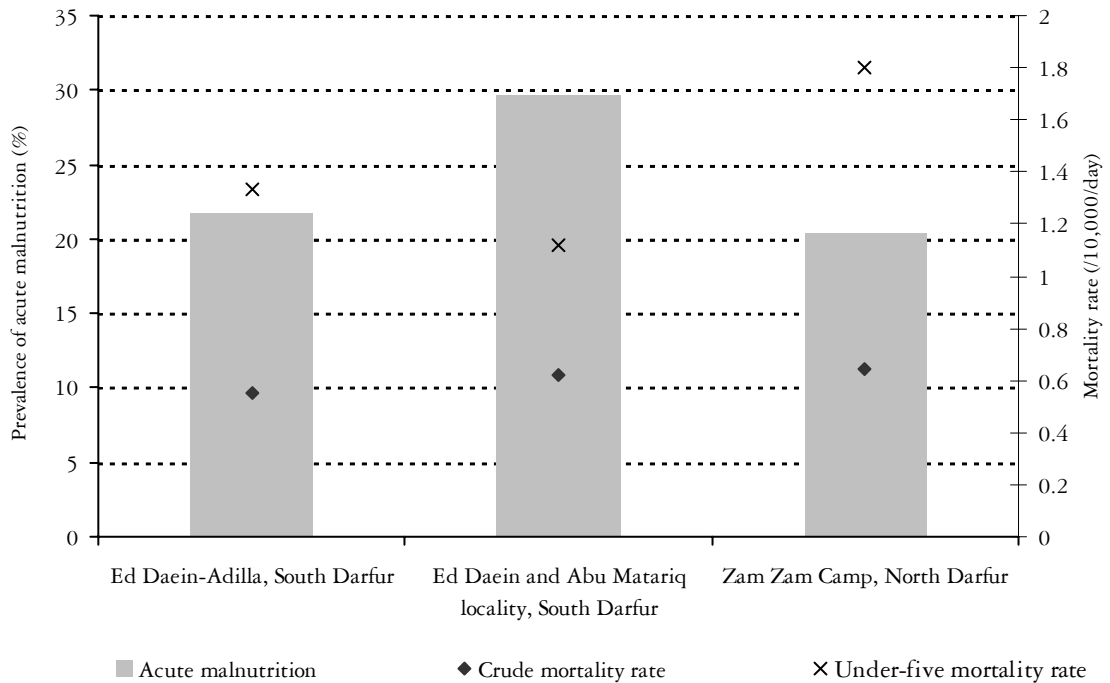
Coordination of humanitarian programs in IDP camps continued to be a challenge in 2007 (USAID, 20/12/07). Kalma camp in South Darfur has been without a coordinating agency for over one year, and there has never been an agency in Gereida, Darfur's largest camp which hosts over 120,000 people. The Spanish Red Cross will give up direction of Abu Shok and Zam Zam camps in North Darfur in the coming months after the Sudanese Red Crescent failed to renew their contract.

Initial results of a joint U.N. and GNU Emergency Food Security and Nutrition Assessment showed that the situation in Darfur rests quite serious (USAID, 20/12/07). A full 70% of people affected by the conflict were estimated to be food insecure and fewer people were able to plant and harvest crops in 2007 as compared to 2006. In addition, acute malnutrition rates have climbed over 3% since the last assessment in 2006 from 12.9% to 16.1% and at the same time, nutrition program coverage dipped negligibly from 14.2% to 13%. Results from nutrition surveys conducted by Tear Fund and Relief International revealed that the situation is even more critical in some areas (UNICEF, 08/07) (figure 4).

Overall

High levels of acute malnutrition persist in Darfur and parts of South Sudan. Flooding in the South and ongoing conflict in Darfur pose important threats to food security.

FIGURE 4 RESULTS OF NUTRITION SURVEYS, DARFUR, 2007 (UNICEF, 08/07)



West Africa

Niger

Plentiful rainfall in August partially offset the early and abrupt end to the rainy season in September. It is still not entirely clear how the harvest will be affected, but it is generally expected that some areas will be negatively impacted with grain output predicted to be insufficient in nearly 1,500 villages (FEWS, 09/07). While worrisome, this estimate is considerably lower than last year, when almost 4,000 villages experienced grain shortfalls.

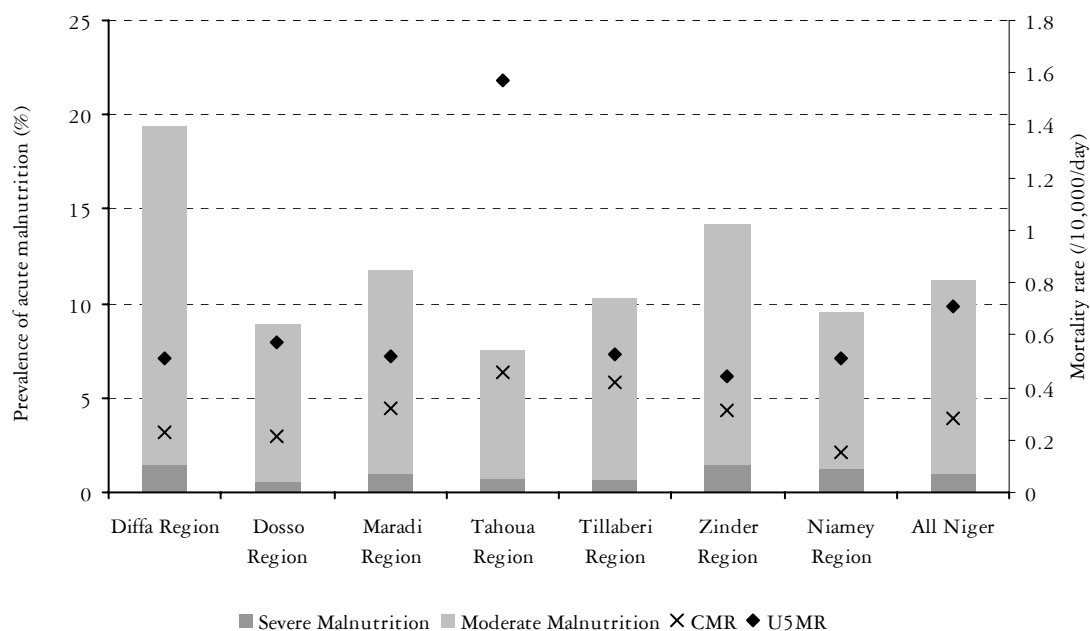
Market prices, which are lower than last year and the 5-year average for the same time of year, reflect the adequacy of current grain stocks. The August rains also replenished valuable watering holes in pastoralist zones, thus providing better access for livestock. With good pasture, the condition of animals has improved, increasing their resale value (FEWS, 09/07).

Nutrition situation still precarious in most parts of the country

A GoN/joint nutrition survey conducted in April 2007 found the country-wide prevalence of acute malnutrition to be 11.2% (C.I. 10.1-12.4) among children 6-59 months (INS-N/joint, 09/07). However, wide regional disparities exist and many areas are still facing serious to critical nutrition situations (figure 5). Diffa and Agadez had the highest prevalence of acute malnutrition, with rates of 19.4% (C.I. 16.0-23.4) and 17.4% (C.I. 14.7-20.6) respectively, although the results from Agadez are not fully representative as certain areas could not be accessed during the survey due to insecurity. Severe malnutrition and mortality rates appeared to be under control (figure 5).



FIGURE 5 RESULTS OF NATIONAL NUTRITION SURVEY, NIGER (INS-N/JOINT 06/07)



Concern completed two nutrition surveys in the districts of Tahoua and Illela, Tahoua region in June 2007 (Concern, 06/07). Acute malnutrition was 12.7% (C.I. 10.1-15.3) in Tahoua district and 8.6% (C.I. 6.7-10.8) in Illela, rates that were both higher than that of 7.5% (C.I. 5.5-10.2) from the national survey done in Tahoua region at roughly the same time (table 4). It should be noted, however, that the confidence intervals of all three surveys overlapped.

Additional surveys in rural areas of Zinder and Magaria, Zinder region were carried out by MSF-CH in July 2007. Results obtained were similar to those from surveys done in August 2006 and show that the nutrition situation remains worrisome (table 4).

A MSF-B survey in the Dakoro health district of Maradi showed a serious nutrition situation, with a high prevalence of severe malnutrition (table 4). Mortality rates, however, were with acceptable ranges.

TABLE 4 RESULT OF NUTRITION SURVEYS, NIGER (CONCERN 06/07; MSF-CH, 07/07; MSF-B 04/07)

Survey Area	Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)	Oedema (%)	Crude Mortality (/10,000/day) (95% CI)	Under 5 Mortality (/10,000/day) (95% CI)
TAHOUA REGION					
Tahoua district	12.7 (10.1-15.3)	1.3 (0.4-2.3)	0.1	0.4 (0.1-0.7)	0.5 (0.1-1.0)
Illela district	8.6 (6.7-10.8)	0.4 (0.1-1.1)	0.0	0.7 (0.33-0.96)	0.9 (0.23)
ZINDER REGION					
Zinder rural zones	9.9 (7.2-12.6)	1.0 (0.1-1.9)	0.4	0.5 (0.3-0.8)	1.3 (0.6-2.0)
Magaria rural zones	10.3 (7.5-13.1)	0.9 (0.0-1.8)	0.1	0.4 (0.2-0.7)	0.8 (0.2-1.3)
MARADI REGION					
Dakoro health district	17.7 (14.5-20.9)	2.1 (1.0-3.1)	0.0	0.2 (0.1-0.3)	0.4 (0.1-0.7)

Central Africa



Burundi

Reports of banditry and harassment by FNL elements caused some NGOs to halt activities in rural Bujumbura, including an important nutrition survey scheduled for December 2007 (OCHA, 02/12/07).

Outbreaks of cholera were reported in Rumonge/Bururi province, as well as in the southern city of Mvugo in the Nyanza Lac commune. The first cases were reported on November 2nd and by early December, at least 132 confirmed cases were identified. No deaths were reported (OCHA, 02/12/07).

Repatriation efforts continue and figures show that 38,681 refugees have returned to the country since the beginning of 2007, the overwhelming majority coming from Tanzania (OCHA, 02/12/07). Approximately 120,000 refugees are still in Tanzania awaiting return. The Tanzanian government has indicated that they will close all camps in 2008, pushing UNICEF and UNHCR to increase their capacity to integrate returnees. A new joint program by the two organizations aims to help construct houses for as many as 20,000 households as well as build 15 new schools and 15 new pre-schools (OCHA, 12/12/07).

A UNICEF/GoB national nutrition survey was carried out in August 2007. Preliminary results indicate that the nutrition situation is generally under control and has improved since the last countrywide survey in 2005 (UNICEF, 10/07) (figure 6). Comparisons, however, should be made with caution as the two sur-

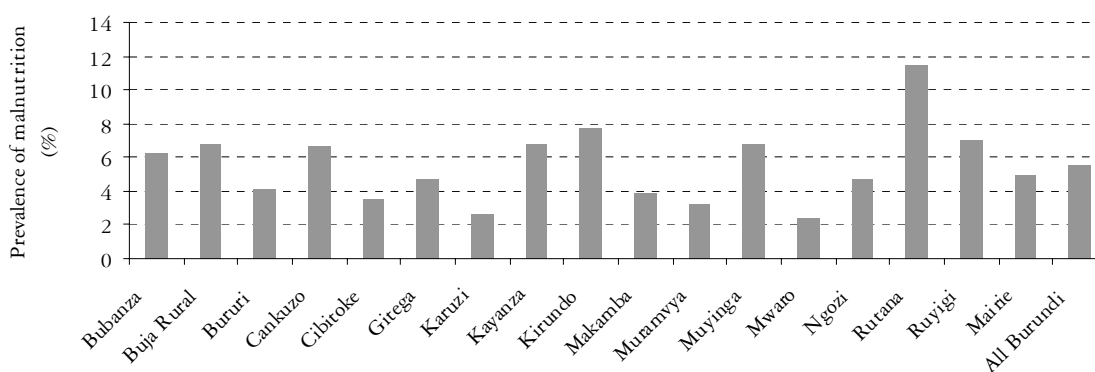
veys were carried out at different periods of the year. Acute malnutrition rates ranged from 2.4% in Mwaro to 11.5% in Rutana.

MSF-B conducted a nutrition survey in the district of Karuzi in April 2007 (MSF-B, 04/07). The results of the survey, while under emergency levels, nonetheless reveal a serious nutrition situation (table 5). Mortality rates were under control. At the time of the survey, MSF-B was in the process of handing over its nutrition activities to the MoH hospital.

TABLE 5 RESULTS OF NUTRITION SURVEY, BURUNDI (MSF-B 04/07)

Survey Area	Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)	Crude Mortality (/10,000/day) (95% CI)	Under 5 Mortality (/10,000/day) (95% CI)
Karuzi province	11.2 (7.9-14.5)	0.3 (0.0-0.7)	0.2 (0.0-0.3)	0.3 (0.0-0.6)

FIGURE 6 RESULTS OF COUNTRY WIDE NUTRITION SURVEY, BURUNDI (UNICEF/GoB, 08/07)



Central African Republic/ Cameroon

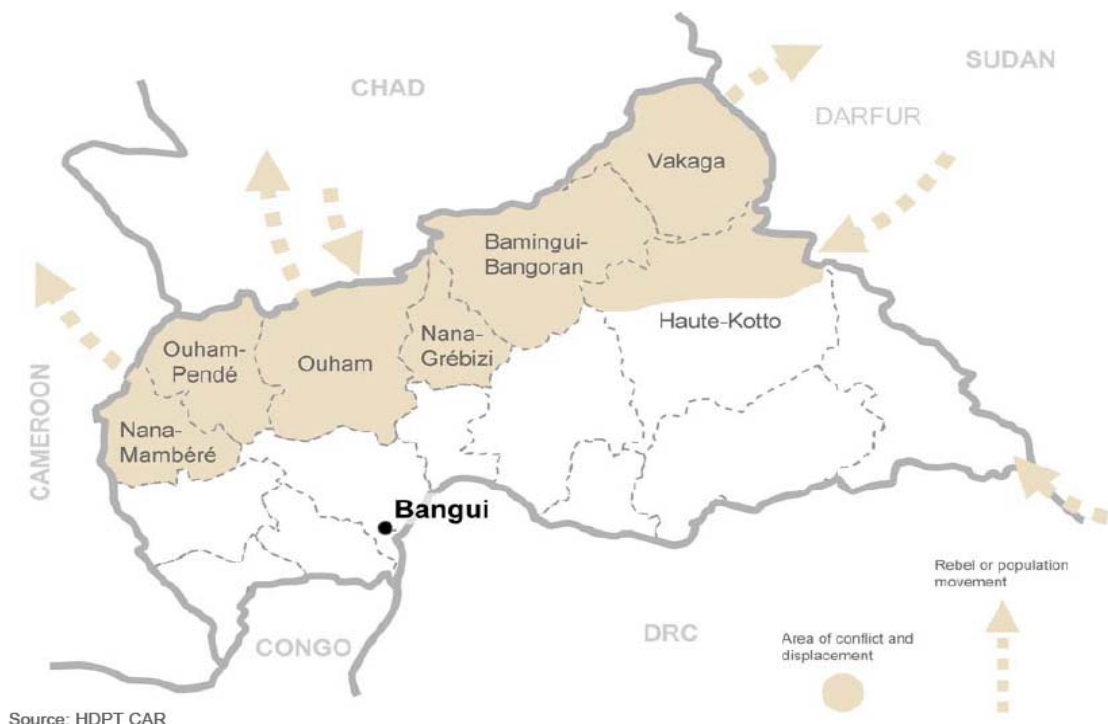
The security situation in CAR has become increasingly volatile, especially in the northwestern part of the country. An estimated 299,000 people have been displaced since the beginning of 2007, including 79,000 who have fled to neighboring countries (UNICEF, 28/09/07). The deployment of MINURCAT, the U.N. force for Chad and Central African Republic, scheduled for November 2007, whose mandate is to protect civilians, was delayed due to lack of technical and material inputs (AI, 29/11/07).

Two nutrition surveys were carried out by MSF-CH in August/September 2007 among Central African refugees living in Adamaoua and Eastern Province, Cameroon. The prevalence of acute malnutrition surpassed critical levels in each of the surveys (MSF-CH, 09/07) (table 6). Moreover, the U5MR in the Eastern Province survey was 5.1/10,000/day (C.I. 4.3-6.0), well beyond emergency levels; in Adamaoua, it was below the alert threshold.

TABLE 6 PREVALENCE OF ACUTE MALNUTRITION AND MORTALITY AMONG CAR REFUGEES LIVING IN CAMEROON (MSF-CH 08-09/07)

Survey Area	Acute Malnutrition (%) (95% CI)	Severe Acute Malnutrition (%) (95% CI)	Oedema (%)	Crude Mortality (/10,000/day) (95% CI)	Under 5 Mortality (/10,000/day) (95% CI)
Adamaoua	15.0 (11.5-18.5)	4.2 (2.5-5.8)	1.8	0.6 (0.4-0.8)	1.3 (0.8-1.9)
Eastern Province	15.1 (13.7-16.6)	4.3 (3.5-5.3)	-	1.8 (1.6-2.1)	5.1 (4.3-6.0)

CONFLICT ZONES AND REBEL OR POPULATION MOVEMENT, CENTRAL AFRICAN REPUBLIC (HDPT, 12/07)



Democratic Republic of Congo

The violence that began in North Kivu between the Forces Armées de la République Démocratique du Congo (FARDC) and Laurent Nkunda's forces in September 2007 has continued unabated. By mid-November OCHA had been able to confirm that at least 405,345 people were displaced in the region surrounding Goma (OCHA, 11/07). Humanitarian aid has been suspended in many areas due to the insecurity. In early December, the WFP was forced to halt all movements outside of Goma, postponing food distributions to as many as 335,000 IDPs (WFP, 12/07). ICRC reports to having treated numerous casualties of military clashes, including some civilians, and signal that rape, looting, and recruitment of child soldiers are on the rise (ICRC, 11/07).

Cholera outbreak confirmed in South of country

WHO reported 286 cases of cholera and 18 deaths (Case Fatality Rate 6.0%) in the southern city of Lubumbashi and its surrounding area during the month of October (WHO, 11/07). The primary explanation given for the elevated level of mortality was the lack of proper treatment centers within reasonable distance for those affected.

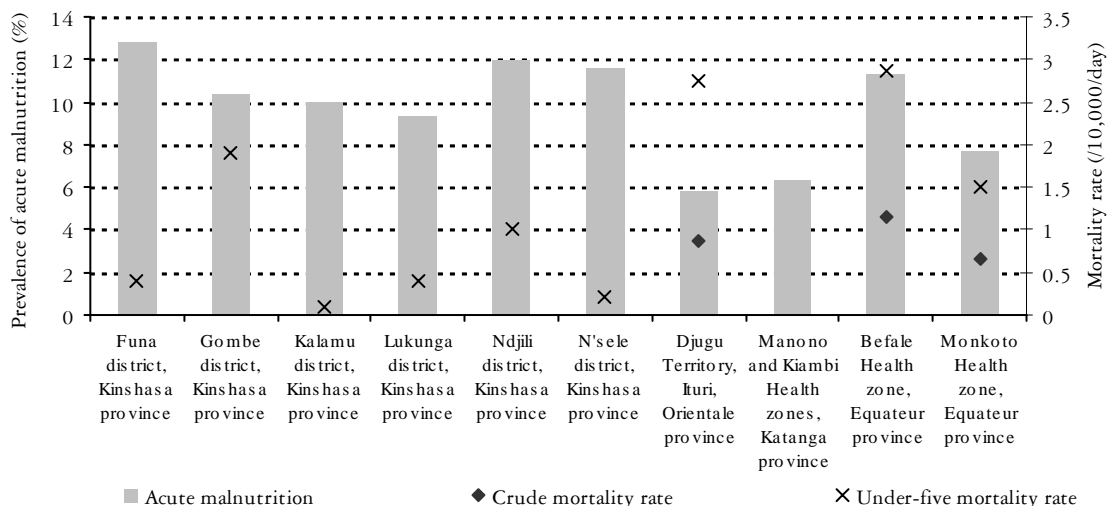
High levels of severe acute malnutrition persist

Nutrition surveys in Kinshasa, Orientale, Katanga, and Equateur provinces showed average to poor nutrition situation (figure 7), although it is important to note that severe malnutrition ranged from 1.5% to as high as 4.3%. The Kinshasa survey also measured the nutritional status of women and found BMI and iron supplementation levels to be acceptable (IPS/Joint, 04/07) (table 6).

TABLE 6 WOMEN'S NUTRITIONAL STATUS, KINSHASA PROVINCE (ISP/JOINT 04/07)

Survey Area by district	BMI of mothers < 17.5 (%)	Iron supplementation among pregnant women
Funa	4.7	71.7
Gombe	9.0	77.4
Kalumu	6.3	72.5
Lukunga	9.7	81.3
Ndjili	6.1	75.7
N'sele	9.4	71.8

FIGURE 7 RESULTS OF NUTRITION SURVEYS, DRC, 2007 (ISP/PRONANUT, 04/07; COOPI, 10/07; GOAL, 05/07; AAH-US, 08/07)



Asia

Bangladesh

On November 15th a Category-4 Super Cyclone hit the Southwest coast of Bangladesh. Peak winds were recorded at up to 250 km/hour. The storm weakened as it travelled north and east through the country, but subsequent damage has been reported in as many as 30 of Bangladesh's 64 districts, although Barisal and Khulna regions were the hardest hit (see map). An estimated 7 million people were affected by the cyclone (GoB, 26/11/07); of those, 2.7 million people required immediate life and livelihood saving intervention from external sources (UN, 2/11/07). The early warning system put in place by the Government of Bangladesh proved effective and has been credited with saving countless lives and decreasing destruction.

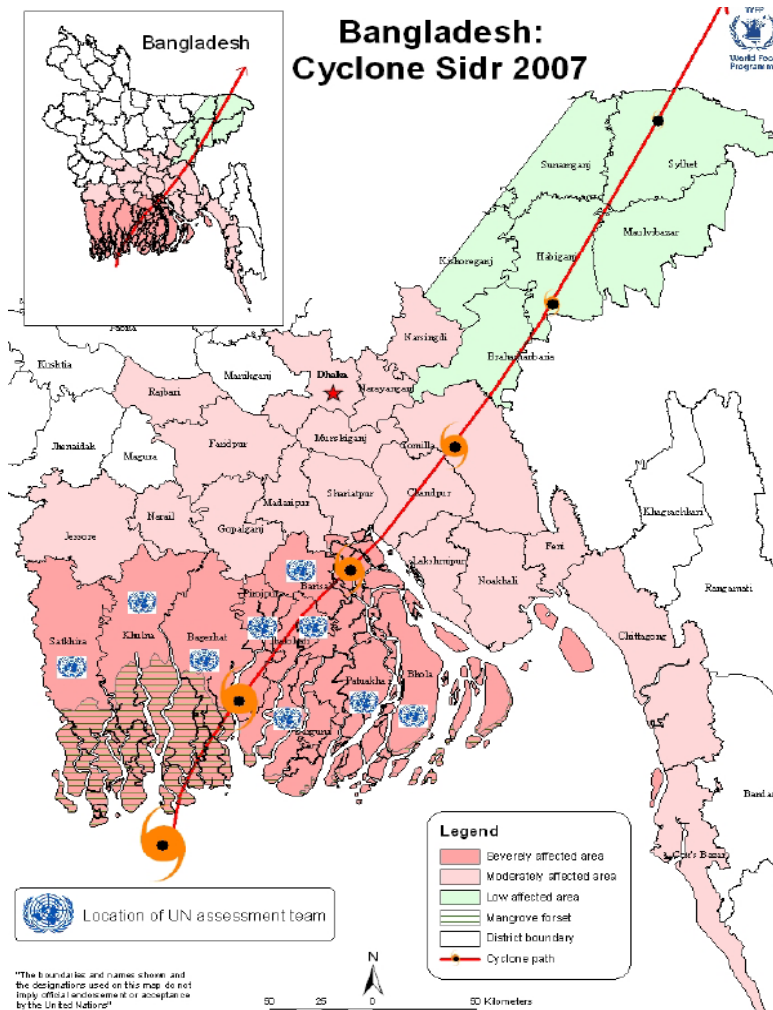


Shelter, food, and cash for livelihoods support were identified as the priority needs for storm victims, followed closely by water and sanitation. The pre-positioning of essential drugs and medicines has made the task of providing health care to those in need much easier.

Despite major infrastructure damage, the GoB, along with numerous International agencies and NGOs, were swift to implement relief activities. Food was distributed to those in need, including high energy biscuits for the most vulnerable and a 3-month supply of blended food for children (OCHA, 26/11/07). Temporary shelters were constructed until permanent structures can be rebuilt.

The biggest challenge to rebuilding, however, will be the destruction done to livelihoods. At least 1.6 million acres of cropland was damaged and an important share of the rice harvest was affected (USAID, 28/11/07). Large numbers of livestock were killed and damage to the fishing industry is considerable. The FAO was planning a comprehensive food and livelihoods assessment for December in order to ascertain the full impact of the cyclone and to aid in the identification of priority steps for recovery.

AREAS AFFECTED BY CYCLONE SIDR
(UN, 22/11/07)



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations

References

Greater Horn of Africa

Ethiopia

UNHCR/ JOINT CONCERN	05-06/07	Nutrition survey, all refugee camps in Ethiopia
CONCERN	06/07	Nutrition survey report, Damot Woyde Woreda, Wolayta Zone, SNNPR
CONCERN	06/07	Nutrition survey report, Offa Woreda, Wolayta Zone, SNNPR
CONCERN	06/07	Nutrition survey report, Dugna Fango Woreda, Wolayta Zone, SNNPR
CONCERN	09/07	Nutrition survey report, Kalu Woreda, South Wollo Zone, Amhara Region
CONCERN	10/07	Nutrition survey report, Dessie Zuria Woreda, South Wollo Zone, Amhara Region
FEWS	09/07	Ethiopia food security outlook– October 2007 to March 2008
OCHA	19/11/07	Humanitarian bulletin: Ethiopia
USAID	30/11/07	Ethiopia-Complex Emergency, Situation report #1

Kenya

GTZ/Joint FEWS	08/07 11/07	Dadaab Nutrition Survey 2007, Summary of findings and recommendations Kenya food security update
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Somalia

FSAU/ Joint OCHA	09/07 10/07	Nutrition Assessment, Hargeisa, Burao and Berbera Returnees and IDP population Humanitarian situation in Somalia: Monthly analysis, October 2007
FEWS	13/11/07	Somalia: Food security emergency
FSAU/N FEWS	10-11/07 11/07	Nutrition Update Greater Horn of Africa Food Security Update
FSAU/N OCHA	19/11/07 23/11/07	Latest nutrition information from the Shabelle regions Situation report #61

Sudan

UNICEF FEWS	07-08/07	Darfur Nutrition Update 09/07 South Sudan Food Security Update
AAH-US	09/07	Nutritional anthropometric survey, children under five years old, Lankien and Tut payams, Jonglei state
ACF-F	10/07	Nutritional anthropometric and retrospective mortality surveys, children under five years old, Bentiu and Rob Kona town, Unity State, South Sudan
FEWS WHO USAID	11/07 22/11/07 20/12/07	South Sudan Food Security Update Rift Valley Fever in Sudan, Update #3 Sudan Complex Emergency, Situation Report #2

West Africa

Niger

MSF-B	04/07	Enquête nutritionnelle et de mortalité retrospective dans le district sanitaire de Dakoro, Region de Maradi
INS-N/ joint CONCERN	06/07	Rapport d'enquête nationale, Nutrition et survie de l'enfant Nutrition survey in Tahoua district, Tahoua region, Niger
CONCERN	06/07	Nutrition survey in Illéla district, Tahoua region, Niger
MSF-CH	07/07	Etudes du statut nutritionnel et de la mortalité retrospective dans la zone rurale de Zinder
FEWS OCHA	09/07 14/12/07	Niger food security update Humanitarian situation report, West Africa

Central Africa

Burundi

MSF-B	04/07	Enquête nutritionnelle et de mortalité retrospective, Province de Karuzi
UNICEF/ JOINT	10/07	Mise en place d'un système de surveillance nutritionnelle au Burundi, Enquête de base, Résultats préliminaires du volet anthropométriques
OCHA	25/11/07	Burundi weekly situation report
OCHA	02/12/07	Burundi weekly situation report

Central African Republic/Cameroon

Epicentre/ MSF-CH	08/07	Enquête de mortalité rétrospective, état nutritionnel, et de couverture vaccinale chez les réfugiés Centrafricains, Province de l'Est, Cameroun
MSF-CH	05/07	Rapid health assessment among refugees from Central African Republic, Adamaoua, Cameroon
UNICEF	28/09/07	Humanitarian Action Update, CAR
AI	29/11/07	Press release
HDPT	10/12/07	Map, Conflict zones and Rebel or Population Movement, CAR

DRC

ISP/ PRONANUT	03-04/07	La situation nutritionnelle des enfants et femmes dans la ville province de Kinshasa
COOPI	10/07	Rapport d'enquête nutritionnelle, Territoire de Djugu, Zones de santé de Bambu, Damas, Drodoro, Fataki, Jiba, Kilo, Linga, Mongwalu, Nizi, Rethy, Tchomia et Mangala, District d'Ituri, Province Orientale, République Démocratique du Congo
GOAL/ CIF-Santé	05/07	Enquête MICS, Zones de santé de Manono et Kiambi, Province du Kantanga Rép Dém Congo
AAH-US/ UNICEF	08/07	Rapport d'enquête nutritionnelle anthropométrique ,zone de santé de Befale, province de l'Equateur, République Démocratique du Congo
AAH-US/ UNICEF	08/07	Rapport d'enquête nutritionnelle anthropométrique ,zone de santé de Monkoto, province de l'Equateur, République Démocratique du Congo
WHO	10/07	Monthly Health Update
OCHA	11/07	Regional Humanitarian Update, Central and East Africa, Vol. 1, issue 9
ICRC	11/07	ICRC activities in Kivu-Nov 2007
WFP	06/12/07	Press release

Asia

Bangladesh

UN	22/11/07	United Nations Rapid Initial Assessment Report with a focus on 9 worst affected districts
OCHA	26/11/07	Cyclone Sidr, Bangladesh, Situation Report No. 10
UNICEF	27/11/07	Bangladesh Cyclone Sidr Situation Report
USAID	28/11/07	Bangladesh Cyclone, Fact Sheet #5

Results of surveys

Survey Area	Date	Population	Estimated Population Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI) [§]		Severe Acute Malnutrition** (%) (95% CI) [§]		Oedema (%)	MUAC [#] (%)
GREATER HORN OF AFRICA ETHIOPIA										
Sherkole Refugee Camp	Jun-07	Refugee	-	UNHCR/ Joint	7.0 7.6 [†]	5.0-9.0 5.3-9.9	1.1 1.4 [†]	0.3-2.0 0.2-2.7	0.1	-
Fugnido (Nure) Refugee Camp	May-07	Refugee	-	UNHCR/ Joint	9.7 10.2 [†]	6.7-12.7 6.1-14.3	0.9 2.1 [†]	0.3-1.5 0.6-3.6	0.0	-
Fugnido (Anyuak) Refugee Camp	May-07	Refugee	-	UNHCR/ Joint	8.6 9.5 [†]	Exhaustive	0.4 1.3 [†]	Exhaustive	0.0	-
Bonga Refugee Camp	May-07	Refugee	-	UNHCR/ Joint	4.0 4.7 [†]	2.4-5.6 3.1-6.3	0.4 1.0 [†]	0.1-1.0 0.0-2.0	0.0	-
Shimelba Refugee Camp	Jul-07	Refugee	19,747	UNHCR/ Joint	13.5 14.4 [†]	Exhaustive	1.1 2.5 [†]	Exhaustive	0.1	-
K/Beyah Refugee Camp	Aug-07	Refugee	22,464	UNHCR/ Joint	10.4 10.6 [†]	8.2-12.7 8.2-13.0	1.1 1.9 [†]	0.2-2.1 0.9-3.0	0.0	-
Damot Woyde Woreda, Wolayta, SNNPR	Jun-07	Residents	103,127	Concern	2.2	1.2-3.3	0.2	0.0-0.5	0.0	MUAC < 11 cm: 0.0 MUAC < 12.5 cm: 3.5
Offa Woreda, Wolayta, SNNPR	Jun-07	Residents	110,665	Concern	1.1	0.2-2.1	0.0	-	0.0	MUAC < 11 cm: 0.0 MUAC < 12.5 cm: 4.7
Dugna Fango Woreda, Wolayta, SNNPR	Jun-07	Residents	118,001	Concern	2.2	0.6-3.8	0.2	0.0-0.5	0.0	MUAC < 11 cm: 0.2 MUAC < 12.5 cm: 4.0
Kalu Woreda, South Wollo Zone, Amhara	Sept-07	Residents	205,062	Concern	9.6	7.2-11.9	0.4	0.0-0.9	0.0	MUAC < 11 cm: 0.4 MUAC < 12.5 cm: 5.7
Dessie Zuria Woreda, South Wollo Zone, Amhara	Oct-07	Residents	172,428	Concern	11.9	8.8-15.1	1.1	0.3-1.8	0.3	MUAC < 11 cm: 0.6 MUAC < 12.5 cm: 7.4
KENYA										
Dagahaley Refugee Camp	Aug-07	Refugee	-	GTZ/ UNHCR	12.5 12.4 [†]	10.5-14.8 10.4-14.7	2.3 3.2 [†]	1.5-3.6 2.2-4.6	-	MUAC < 11 cm and/or oedema: 0.3

*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

[§]95% Confidence Interval; not mentioned if not available from the survey report

[#] Mid Upper Arm Circumference

[†] According to WHO 2006 Child Growth Standards (<http://www.who.int/childgrowth/en/>)

Continued...

Measles immunisation coverage (%) [#]		Assessment of micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) [§]		Under 5 Mortality (/10,000/day) (95% CI) [§]	
Proved by card	Card + history							
19.5	84.0	-	94.9	-	0.43	0.13-0.73	0.92	0.22-1.61
41.0	93.0	-	91.5	MUAC <210mm: 1.8 ²	0.2	0.04-0.36	0.37	0.02-0.72
18.6	82.1	-	78.2	MUAC <210mm: 1.9 ²	0.55	Exhaustive	1.35	Exhaustive
84.9	96.7	-	90.8	-	-	-	-	-
58.0	93.0	-	94.0	-	0.09	Exhaustive	0.1	Exhaustive
64.0	94.0	-	93.0	MUAC <210mm: 1.2 ²	0.05	0.0-0.14	0.31	0.18-0.8
14.8	65.4	-	97.2	MUAC <210mm: 1.0 ² 2.8 ³	0.09	0.0-0.19	0.16	0.0-0.53
19.6	72.9	-	95.9	MUAC <210mm: 1.2 ² 5.2 ³	0.07	0.0-0.18	0.18	0.0-0.39
9.2	65.8	-	89.9	MUAC <210mm: 0.6 ² 2.2 ³	0.27	0.08-0.47	0.61	0.17-1.06
47.0	93.3	-	97.8	MUAC <210mm: 15.0 ² 12.6 ³	0.28	0.1-0.45	1.04	0.35-1.72
24.3	76.0	-	97.8	MUAC <210mm: 9.0 ² 11.4 ³	0.39	0.2-0.59	0.54	0.0-1.13
58.4	97.5	See p. 5	87.0	-	0.66	-	1.3	-

[#] Measles vaccination coverage for children aged 9-59 months

²Pregnant and lactating women

³All mothers of children in survey, including pregnant and lactating women

Survey Area	Date	Popula- tion	Estimated Popula- tion Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI) [§]	Severe Acute Malnutrition** (%) (95% CI) [§]	Oedema (%)	MUAC [#] (%)
KENYA (cont.)								
Hagadera Refugee Camp	Aug-07	Refugee		GTZ/ UNHCR	10.4 8.6-12.6 11.5 ¹ 9.5-13.8	1.0 0.5-2.0 1.9 ¹ 1.1-3.0	-	MUAC < 11 cm and/or oedema: 1.0
Ifo Refugee Camp	Aug-07	Refugee		GTZ/ UNHCR	12.9 10.8-15.2 12.4 ¹ 10.4-14.8	1.5 0.9-2.6 2.6 ¹ 1.7-3.9	-	MUAC < 11 cm and/or oedema: 0.7
SOMALIA								
SOMALILAND								
Hargeisa town	Sept-07	Displaced/ Returnees	-	FSAU/ Joint	10.3 8.4-12.2	1.2 0.6-1.9	0.0	MUAC < 11 cm: 0.3 MUAC < 12.5 cm: 3.0
Burao town	Sept-07	Displaced/ Returnees	-	FSAU/ Joint	15.8 Exhaustive	1.4 Exhaustive	0.0	MUAC < 11 cm: 0.0 MUAC < 12.5 cm: 7.5
Berbera town	Sept-07	Displaced/ Returnees	-	FSAU/ Joint	16.0 Exhaustive	0.6 Exhaustive	0.0	
MIDDLE AND LOWER SHABELLE REGIONS								
Riverine liveli- hood zone, Lower & Middle Sha- belle	Nov-07	Residents/ Displaced	-	FSAU/ joint ²	14.0 11.2-16.7	2.9 1.6-4.1	0.8	-
Agro-pastoral livelihood zone, Lower & Middle Shabelle	Nov-07	Residents/ Displaced	-	FSAU/ joint ²	17.6 13.3-21.3	3.2 1.7-4.6	0.4	-
Afgoye and Merka, Shabelle	Nov-07	Displaced	-	FSAU/ joint ²	15.2 11.7-18.6	3.2 1.9-4.5	0.9	-
CENTRAL AND NORTHEAST REGION								
Hawd pastoral livelihood zone, Central and Northeast region	Nov-07	Residents/ Displaced	-	FSAU/ joint ²	17.2 14.1-20.5	1.3 0.6-2.1	0.1	-
Addun pastoral livelihood zone, Central and Northeast region	Nov-07	Residents/ Displaced	-	FSAU/ joint ²	15.9 12.8-18.9	1.6 0.8-2.6	0.2	
BAKOOL REGION								
Wajid town and surrounding areas, Bakool region	Nov-07	Residents	-	ACF-F ²	14.3 10.5-18.1	0.8 0.2-1.5	-	-

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

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

[§]95% Confidence Interval; not mentioned if not available from the survey report

[#] Mid Upper Arm Circumference

¹ According to WHO 2006 Child Growth Standards (<http://www.who.int/childgrowth/en/>)

²From FSAU Nutrition Update

Continued...

Measles immunisation coverage (%) [#]	Assessment of micro-nutrient deficiencies		Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) [§]		Under 5 Mortality (/10,000/day) (95% CI) [§]	
	Proved by card	Card + history						
65.3	94.7	See p. 5	91.8	-	0.28	-	0.85	-
52.1	97.2	See p. 5	94.1	-	0.39	-	1.46	-
-	58.3	-	60.9	-	0.90	0.55-1.25	1.42	0.68-2.17
-	63.1	-	61.3	-	-	-	-	-
-	52.4	-	78.6	-	-	-	-	-
-	47.4	-	54.7	-	1.27	1.13-2.41	2.02	1.07-2.97
-	22.8	-	36.7	-	0.42	0.22-0.62	0.95	0.42-1.47
-	67.6	-	66.2	-	1.45	0.97-1.93	2.95	1.55-4.34
-	31.2	-	56.9	-	0.36	0.14-0.58	0.92	0.13-1.97
-	11.5	-	42.0	-	0.82	0.38-1.25	1.76	0.62-2.90
-	-	-	-	-	0.57	0.24-0.90	1.55	0.44-2.66

[#] Measles vaccination coverage for children aged 9-59 months

Survey Area	Date	Popula- tion	Estimated Popula- tion Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI) [§]	Severe Acute Malnutrition** (%) (95% CI) [§]	Oedema (%)	MUAC [#] (%)
SUDAN								
SOUTH DARFUR								
Ed Daein-Adilla	Jun-07	Residents/ Displaced	-	Tearfund ¹	21.7 18.5-24.9	2.6 1.1-4.0	-	-
Ed Daein and Abu Matariq Locality	Jun-07	Displaced	-	Tearfund ¹	29.7 25.8-33.7	4.4 3.1-5.7	-	-
NORTH DARFUR								
Zam Zam camp	Aug-07	Displaced	-	Relief Int ¹	20.4 16.8-24.5	1.2 0.4-2.8	-	-
JONGLEI STATE								
Lankien and Tut Payams, Nyriol County	Aug/ Sept-07	Residents/ Displaced/ Returnees	24,468	AAH-USA	17.3 13.7-20.8 <i>18.3² 14.5-22.1</i>	0.8 0.1-1.4 <i>2.2² 0.9-3.5</i>	0.3	MUAC < 11 cm: 0.2 MUAC < 12.5 cm: 5.6
UNITY STATE								
Bentiu and Rob Kona Town	Sept/ Oct-07	Residents/ Displaced/ Returnees	99,512	AAH-F	20.5 17.0-24.6	2.6 1.4-4.7	0.0	MUAC < 11 cm: 0.4 MUAC < 12.5 cm: 5.6

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

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

[§]95% Confidence Interval; not mentioned if not available from the survey report

[#] Mid Upper Arm Circumference

¹ From UNICEF Darfur Nutrition Update

² According to WHO 2006 Child Growth Standards (<http://www.who.int/childgrowth/en/>)

Continued...

Measles immunisation coverage (%) [#]	Assessment of micro-nutrient deficiencies		Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) [§]		Under 5 Mortality (/10,000/day) (95% CI) [§]	
	Proved by card	Card + history						
-	-	-	-	-	0.55	-	1.33	-
-	-	-	-	-	0.62	-	1.12	-
-	-	-	-	-	0.64	-	1.8	-
31.5	65.9	-	-	-	1.24	0.80-1.68	0.12	0.00-0.44
24.4	72.3	-	-	-	0.59	-	1.02	-

[#] Measles vaccination coverage for children aged 9-59 months

Survey Area	Date	Popula- tion	Estimated Popula- tion Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI) [§]		Severe Acute Malnutrition** (%) (95% CI) [§]		Oe- dema (%)	MUAC [#] (%)
WEST AFRICA NIGER										
Dakoro Health district, Maradi Region	Apr-07	Residents	126,870	MSF-B	17.7	14.5-20.9	2.1	1.0-3.1	0.0	MUAC < 11 cm: 0.3 MUAC < 12.5 cm: 6.2
Diffa Region	Jun-07	Residents	-	INS-N/ Joint	19.4 20.5 ¹	16.0-23.4 16.7-25.0	1.5 3.6 ¹	0.9-2.5 2.4-5.4	-	-
Dosso Region	Jun-07	Residents	-	INS-N/ Joint	8.9 9.5 ¹	7.1-11.2 7.8-11.5	0.5 1.5 ¹	0.3-1.1 0.9-2.4	-	-
Maradi Region	Jun-07	Residents	-	INS-N/ Joint	11.8 14.5 ¹	8.9-15.5 11.1-18.7	1.0 4.0 ¹	0.5-1.9 2.7-6.0	-	-
Tahoua Region	Jun-07	Residents	-	INS-N/ Joint	7.5 7.9 ¹	5.5-10.2 6.2-10.2	0.7 1.5 ¹	0.3-1.7 0.9-2.5	-	-
Tillaberi Region	Jun-07	Residents	-	INS-N/ Joint	10.3 10.2 ¹	8.0-13.1 8.6-13.4	0.6 1.3 ¹	0.3-1.2 0.7-2.4	-	-
Zinder Region	Jun-07	Residents	-	INS-N/ Joint	14.2 15.4 ¹	11.6-17.1 12.5-18.8	1.5 3.2 ¹	0.9-2.5 2.1-4.7	-	-
Niamey Region	Jun-07	Residents	-	INS-N/ Joint	9.5 9.8 ¹	8.0-11.2 7.9-12.3	1.3 1.9 ¹	0.7-2.1 1.3-3.0	-	-
Tahoua District, Tahoua Region	Jun-07	Residents	426,228	Concern	12.7	10.1-15.3	1.3	0.4-2.3	0.1	MUAC < 11 cm: 0.1 MUAC < 12.5 cm: 3.4
Illela District, Tahoua Region	Jun-07	Residents	347,395	Concern	8.6	6.7-10.8	0.4	0.1-1.1	0.0	MUAC < 11 cm: 0.2 MUAC < 12.5 cm: 4.3
Zinder Rural Zones, Zinder Region	Jul-07	Residents	456,442	MSF-CH	9.9	7.2-12.6	1.0	0.1-1.9	0.4	-
Magaria Rural Zones, Zinder Region	Jul-07	Residents	857,665	MSF-CH	10.3	7.5-13.1	0.9	0.0-1.8	0.1	-

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

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

[§] 95% Confidence Interval; not mentioned if not available from the survey report

[#] Mid Upper Arm Circumference

¹ According to WHO 2006 Child Growth Standards (<http://www.who.int/childgrowth/en/>)

Continued...

Measles immunisation coverage (%) [#]		Assessment of micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) [§]		Under 5 Mortality (/10,000/day) (95% CI) [§]	
Proved by card	Card + history							
18.5 ²	42.2 ²	-	-	-	0.2	0.1-0.3	0.4	0.1-0.7
-	-	-	-	-	0.23	-	0.51	-
-	-	-	-	-	0.21	-	0.57	-
-	-	-	-	-	0.32	-	0.52	-
-	-	-	-	-	0.46	-	1.57	-
-	-	-	-	-	0.42	-	0.53	-
-	-	-	-	-	0.31	-	0.44	-
-	-	-	-	-	0.15	-	0.51	-
33.4	66.4	-	95.4	-	0.4	0.1-0.7	0.5	0.1-1.0
32.4	67.7	-	96.9	-	0.7	0.33-0.96	0.9	0.23-1.58
-	-	-	-	-	0.5	0.3-0.8	1.3	0.6-2.0
-	-	-	-	-	0.4	0.2-0.7	0.8	0.2-1.3

[#] Measles vaccination coverage for children aged 9-59 months

² Measles vaccination coverage for children 65cm-110cm

Survey Area	Date	Popula- tion	Estimated Popula- tion Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI) [§]	Severe Acute Malnutrition** (%) (95% CI) [§]	Oedema (%)	MUAC [#] (%)
CENTRAL AFRICA BURUNDI								
Karuzi Province	Apr-07	Residents	345,000	MSF-B	11.2 ¹ 7.9-14.5	0.3 ¹ 0.0-0.7	0.0	MUAC < 11 cm: 0.3 MUAC < 12.5 cm: 8.5
Bubanza	Aug-07	Residenta	-	Joint	6.3 -	- -	-	-
Buja Rural	Aug-07	Residenta	-	Joint	6.8 -	- -	-	-
Bururi	Aug-07	Residenta	-	Joint	4.1 -	- -	-	-
Cankuzo	Aug-07	Residenta	-	Joint	6.6 -	- -	-	-
Cibitoke	Aug-07	Residenta	-	Joint	3.5 -	- -	-	-
Gitega	Aug-07	Residenta	-	Joint	4.7 -	- -	-	-
Karuzi	Aug-07	Residenta	-	Joint	2.7 -	- -	-	-
Kayanza	Aug-07	Residenta	-	Joint	6.8 -	- -	-	-
Kirundo	Aug-07	Residenta	-	Joint	7.7 -	- -	-	-
Makamba	Aug-07	Residenta	-	Joint	3.9 -	- -	-	-
Muramvya	Aug-07	Residenta	-	Joint	3.2 -	- -	-	-
Muyinga	Aug-07	Residenta	-	Joint	6.7 -	- -	-	-
Mwaro	Aug-07	Residenta	-	Joint	2.4 -	- -	-	-
Ngozi	Aug-07	Residenta	-	Joint	4.7 -	- -	-	-
Rutana	Aug-07	Residenta	-	Joint	11.5 -	- -	-	-
Ruyigi	Aug-07	Residenta	-	Joint	7.0 -	- -	-	-
Mairie	Aug-07	Residenta	-	Joint	5.0 -	- -	-	-

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

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

[§]95% Confidence Interval; not mentioned if not available from the survey report

[#] Mid Upper Arm Circumference

¹Survey results based on children 65cm-110cm and may include some children >5 years

Continued...

Measles immunisation coverage (%) [#]		Assessment of micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) [§]		Under 5 Mortality (/10,000/day) (95% CI) [§]	
Proved by card	Card + history							
[Redacted Row]								
46.7	96.7	-	-	-	0.2	0.0-0.3	0.3	0.0-0.6
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-

[#] Measles vaccination coverage for children aged 9-59 months

Survey Area	Date	Popula- tion	Estimated Popula- tion Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI) [§]	Severe Acute Malnutrition** (%) (95% CI) [§]	Oedema (%)	MUAC [#] (%)
CENTRAL AFRICAN REPUBLIC								
CAR refugees in Eastern Province, Cameroon	Aug-07	Refugees	7,326	MSF-CH	15.1 ¹ 13.7-16.6	4.3 ¹ 3.5-5.3	-	-
CAR refugees in Adamaoua, Cameroon	Sept-07	Refugees	-	MSF-CH	15.0 ¹ 11.5-18.5	4.2 ¹ 2.5-5.8	1.8 ¹	-
DRC								
KINSHASA								
Funa district	Mar/ Apr-07	Residents	787,322	ISP/ Pronanut	12.8 10.5-15.6	4.0 2.7-5.7	-	MUAC < 12.5 cm: 3.2
Gombe district	Mar/ Apr-07	Residents	508,925	ISP/ Pronanut	10.3 8.2-12.8	4.3 3.0-6.1	-	MUAC < 12.5 cm: 3.4
Kalamu district	Mar/ Apr-07	Residents	1,470,019	ISP/ Pronanut	10.0 7.9-12.5	2.2 1.3-3.6	-	MUAC < 12.5 cm: 3.4
Lukunga district	Mar/ Apr-07	Residents	1,611,954	ISP/ Pronanut	9.3 7.3-11.8	2.1 1.2-3.6	-	MUAC < 12.5 cm: 2.2
Ndjili district	Mar/ Apr-07	Residents	1,484,477	ISP/ Pronanut	11.9 9.6-14.5	3.6 2.3-5.2	-	MUAC < 12.5 cm: 2.5
N'sele district	Mar/ Apr-07	Residents	326,443	ISP/ Pronanut	11.6 9.4-14.3	3.0 1.9-4.6	-	MUAC < 12.5 cm: 6.4
ORIENTALE								
Djugu Territory, Ituri	Oct-07	Residents	1,308,315	COOPI	5.8 3.8-7.7	2.5 1.3-3.8	2.1	MUAC < 11 cm: 0.3 MUAC < 12.5 cm: 4.3
KATANGA								
Manono and Kiambi Health Zones	May-07	Residents	167,476	GOAL/ CIF-Sante	6.3 4.4-8.1	1.3 0.4-2.2	0.1	-
EQUATEUR								
Befale Health Zone	Aug-07	Residents	106,236	AAH-USA	11.3 7.3-15.2 11.6 ² 7.8-15.4	2.4 1.3-3.5 2.9 ² 1.5-4.3	-	-
Monkoto Health Zone	Aug-07	Residents	91,176	AAH-USA	7.7 5.9-9.5 7.8 ² 6.0-9.6	1.5 0.7-2.3 2.1 ² 1.1-3.2	1.0	MUAC < 11 cm: 1.4 MUAC < 12.5 cm: 11.8

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

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

[§] 95% Confidence Interval; not mentioned if not available from the survey report

[#] Mid Upper Arm Circumference

¹ Survey results based on children 65cm-110cm and may include some children >5 years

² According to WHO 2006 Child Growth Standards (<http://www.who.int/childgrowth/en/>)

Continued...

Measles immunisation coverage (%) [#]		Assessment of micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI) [§]		Under 5 Mortality (/10,000/day) (95% CI) [§]	
Proved by card	Card + history							
44.0	53.0	-	-	-	1.8	1.6-2.1	5.1	4.3-6.0
7.5	73.9	-	-	-	0.6	0.4-0.8	1.3	0.8-1.9
-	91.5	See p.	95.8	BMI < 17.5: 4.7	-	-	0.4	
-	91.6	See p.	96.6	BMI < 17.5: 9.0	-	-	1.9	
-	90.6	See p.	96.5	BMI < 17.5: 6.3	-	-	0.1	
-	90.5	See p.	92.4	BMI < 17.5: 9.7	-	-	0.4	
-	89.6	See p.	97.0	BMI < 17.5: 6.1	-	-	1.0	
-	85.4	See p.	94.3	BMI < 17.5: 9.4	-	-	0.2	
33.0	81.9	-	83.4	-	0.88	0.67-1.10	2.76	1.84-3.69
14.0	72.0	-	62.0	-	-	-	-	-
17.2	77.9	-	95.9	-	1.14	0.77-1.50	2.87	1.70-4.03
4.4	85.8	-	92.1	-	0.65	0.36-0.94	1.5	0.82-2.27

[#] Measles vaccination coverage for children aged 9-59 months

Survey methodology

The Greater Horn region

Ethiopia

REFUGEE CAMP SURVEY

Four two-stage 30-by-30 cluster sampled nutrition surveys and two exhaustive sampled nutrition surveys were carried out in all Sudanese and Eritrean refugee camps by UNHCR and partners in May/June 2007. The surveys also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates, hemoglobin levels and various infant and child feeding practice indicators.

DAMOT WOYDE WOREDA, WOLAYTA, SNNPR

A random-sampled nutrition survey was conducted by Concern Worldwide in June 2007, using a two-stage 33-by-16 cluster sampling methodology to measure 541 children between the ages of 6-59 months. The survey also estimated measles vaccination and vitamin A distribution coverage, retrospective mortality rates, as well as various food security, public health and infant and child feeding practice indicators.

OFFA WOREDA, WOLAYTA, SNNPR

A two-stage 29-by-15 cluster-sampled nutrition survey, including measurements of 442 children 6-59 months, was conducted by Concern Worldwide in June 2007. The survey also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates, hemoglobin levels and various infant and child feeding practice indicators.

DUGNA FANGO WOREDA, WOLAYTA, SNNPR

The survey was conducted by Concern Worldwide in June 2007. A two-stage 33-by-16 cluster sampling methodology was used to measure 543 children between 6-59 months. The survey also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates, hemoglobin levels and various infant and child feeding practice indicators.

KALU WOREDA, SOUTH WOLLO ZONE, AMHARA

A random-sampled nutrition survey was conducted by Concern Worldwide from 30 Aug-6 Sept 2007. A two-stage 36-by-15 cluster sampled design was employed to measure 541 children between the ages of 6-59 months. The survey also estimated measles vaccination and vitamin A distribution coverage, retrospective mortality rates, as well as various food security, public health and infant and child feeding practice indicators.

DESSIE ZURIA WOREDA, SOUTH WOLLO ZONE, AMHARA

This nutrition survey, a two-stage 16-by-40 random cluster sampled survey, was carried out by Concern Worldwide from 26 Sept - 4 Oct 2007. A total of 645 children aged 6-59 months, were included in the sample. The survey also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates, and various food security, public health and infant and child feeding practice indicators.

Kenya

DADAAB REFUGEE CAMP

Three two-stage 30-by-30 cluster-sampled nutrition surveys were carried out in each of the camps at Dadaab, namely Dagahaley, Hagadera and Ifo. These surveys, conducted by GTZ and partners in August 2007, measured 967, 933 and 943 children 6-59 months respectively. The surveys also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates and various food security and public health indicators. In addition, a subset of 300 women and children were randomly sampled for anemia status analysis.

Somalia

IDP AND RETURNEES, HARGEISA, BURAO AND BERBERA, SOMALILAND

A two-stage 30-by-30 cluster-sampled nutrition survey was conducted in Hargeisa and exhaustive assessments were conducted in Burao and Berbera by FSAU/joint in September 2007. 907, 292, and 313 children were measured respectively. The surveys also estimated measles vaccination and vitamin A distribution coverage, and various food security and public health indicators. Crude and under-five mortality rates were estimated for Hargeisa.

LOWER & MIDDLE SHABELLE REGIONS

Three two-stage 30-by-30 cluster-sampled nutrition surveys were conducted by FSAU/joint in riverine areas, agro-pastoral areas, and among the newly displaced populations of Afgoye and Merka between October 30th and November 9th 2007. The surveys also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates and various food security and public health indicators.

CENTRAL AND NORTHEAST REGIONS

Two two-stage 30-by-30 cluster-sampled nutrition surveys were conducted by FSAU/joint in Addun and Hawd pastoral livelihood zones in November 2007. The surveys also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates and various food security and public health indicators.

WAJID TOWN AND SURROUNDING AREAS, BAKOOL REGION

A two-stage 30-by-30 cluster-sampled nutrition survey was conducted by ACF-F in November 2007. The survey also estimated measles vaccination and crude and under-five mortality rates.

Sudan

EL DAEIN-ADILLA, SOUTH DARFUR

A random-sampled nutrition survey was conducted by Tearfund in June 2007. A two-stage 30-by-30 cluster sampled methodology was used to identify and measure children 6-59 months. The survey also estimated measles vaccination coverage and crude and under-five mortality rates.

EL DAEIN AND ABU MATARIQ LOCALITY, SOUTH DARFUR

A random-sampled nutrition survey of children 6-59 months was conducted by Tearfund in June 2007. A two-stage 30-by-30 cluster design was employed. The survey also estimated measles vaccination coverage and crude and under-five mortality rates.

ZAM ZAM CAMP, NORTH DARFUR

A random-sampled nutrition survey was conducted by Relief International in August 2007. A two-stage 30-by-30 cluster sampled methodology was used and children 6-59 months were included in the sample. The survey also estimated measles vaccination coverage and crude and under-five mortality rates.

LANKIEN AND TUT PAYAMS, NYIROL COUNTY, JONGLEI STATE

The survey was conducted by AAH-US in September 2007. A two-stage cluster sampling methodology of 39 clusters was used to measure 794 children between 6-59 months. The survey also estimated measles vaccination coverage and retrospective mortality rates over three months prior to the survey.

BENTIU AND ROB KONA TOWN, UNITY STATE

The survey was conducted by ACF-F in October 2007. A two-stage 30-by-30 cluster-sampled methodology was used to measure 951 children between 6-59 months. The survey also estimated measles vaccination coverage and retrospective mortality rates over three months prior to the survey.

West Africa

Niger

DAKORO DEPARTMENT, MARADI REGION

The survey was conducted by MSF-B in April 2007. A two-stage cluster sampling methodology of 30 clusters was used to measure 897 children between 6-59 months. The survey also estimated measles vaccination and crude and under-five mortality rates.

WHOLE COUNTRY

A country wide nutrition survey was conducted by UNICEF, INS-N and partners, using cluster sampling methodology, stratified by region and by milieu (rural vs. urban). The survey was carried out in May/June 2007 and included a total of 8,750 children 6-59 months from 298 clusters. The survey further estimated crude and under-five mortality rates.

TAHOUA DISTRICT, TAHOUA ZONE

A standard two-stage 30-by-30 cluster sampled nutrition survey was completed by Concern Worldwide in June 2007. A total of 970 children between the ages of 6-59 months were included in the sample. The survey also estimated measles vaccination and vitamin A distribution coverage. Retrospective mortality rates in the 62 days prior to the survey were calculated based on data collected from the first 20 households of each cluster.

ILLELA DISTRICT, TAHOUA ZONE

A standard two-stage 30-by-30 cluster sampled nutrition survey was completed by Concern Worldwide in June 2007. 970 children 6-59 months were included in the sample. The survey also estimated measles vaccination and vitamin A distribution coverage. Retrospective mortality rates in the 62 days prior to the survey were calculated based on data collected from the first 20 households of each cluster.

ZINDER AND MAGARIA RURAL ZONES, ZINDER REGION

Two two-stage 30-by-30 cluster-sampled nutrition surveys were conducted by Epicentre/MSF-CH in the rural zones of Zinder and Magaria in July 2007, each measuring 907 and 921 children between 6-59 months respectively. The surveys also estimated measles vaccination and retrospective mortality rates.

Central Africa

Burundi

KARUZI PROVINCE

MSF-B carried out a two-stage 30-by-30 cluster sampled nutrition survey in April 2007. The inclusion criteria of this survey was based on height rather than age, and as such, children measuring 65cm-110cm were selected. In total, 918 children were included in the analysis. The survey also estimated measles vaccination coverage and crude and under-five mortality rates.

WHOLE COUNTRY

UNICEF/GoB carried out a 2-stage random sampled nutrition survey in the 17 provinces of the country in August 2007.

Central African Republic/Cameroon

REFUGEES IN ADAMAOUA, CAMEROON

A two-stage 30-by-20 cluster-sampled nutrition survey was conducted by Epicentre/MSF-CH in September 2007. A total of 933 children measuring 65cm and 110cm were included in the sample. The survey also estimated measles vaccination and retrospective mortality rates over 12 months prior to the survey.

REFUGEES IN EASTERN PROVINCES, CAMEROON

The survey was conducted by Epicentre/MSF-CH in August 2007. An exhaustive survey was done among all refugee households in four villages of the Eastern province. The survey also estimated measles vaccination coverage and retrospective mortality rates.

Democratic Republic of Congo

KINSHASA CITY HEALTH DISTRICTS, KINSHASA PROVINCE

Surveys were conducted in all of the six health districts of Kinshasa city province by IPS in March/April 2007. A 36 cluster sampling methodology was used in each district and a total of 8712 children between 6-59 months were measured. The surveys also estimated measles vaccina-

tion and vitamin A distribution coverage, under-five mortality rates and various food security and public health indicators.

DJUGU TERRITORY, ITURI DISTRICT, ORIENTALE PROVINCE

The survey was conducted by COOPI in Oct 2007. A three-stage 40-by-24 cluster sampling methodology was used to measure 903 children between 6-59 months. The survey also estimated measles vaccination coverage, vitamin A distribution coverage and retrospective mortality rate over 6 months prior to the survey.

MANONO AND KIAMBI HEALTH ZONES, KATANGA PROVINCE

The survey was conducted by Goal/CIF Santé in May 2007. A two-stage 30 cluster sampling methodology was used to measure 989 children between 6-59 months. The survey also estimated measles vaccination coverage, vitamin A distribution coverage and various food security and public health indicators.

BEFALE HEALTH ZONE, EQUATEUR PROVINCE

The survey was conducted by AAH-US in Aug 2007. A two-stage 30-by-30 cluster sampled methodology was used to measure 932 children between 6-59 months. The survey also estimated measles vaccination, vitamin A distribution coverage and retrospective mortality rates.

MONKOTO HEALTH ZONE, EQUATEUR PROVINCE

The survey was conducted by AAH-US in Aug 2007. A two-stage 30-by-30 cluster sampled methodology was used to measure 932 children between 6-59 months. The survey also estimated measles vaccination, vitamin A distribution coverage and retrospective mortality rates.

Abbreviations and acronyms

AAH-US	Action Against Hunger USA
ACF-F	Action Contre la Faim France
AI	Amnesty International
BMI	Body Mass Index
CAR	Central African Republic
CI	Confidence Interval
CMR	Crude Mortality Rate
< 5 MR	Under-five Mortality Rate
Epi	Epicentre
FAO	Food & Agricultural Organization of the United Nations
FARDC	Forces Armées de la Republic Democratic du Congo
FEWS	Famine Early Warning System
FNL	Front National de Libération (Burundi)
FSAU	Food Security Analysis Unit for Somalia
GoE	Government of Ethiopia
GoB	Government of Burundi/Government of Bangladesh
GNU	Government of National Unity
GTZ	German Technical Cooperation
HDPT	Humanitarian and Development Partnership Team
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
INS-N	Institut National de la Statistique Niger
IPS	Inspection Provinciale de la Santé, DRC
IRIN	International Regional Information Network
MINURCAT	United Nations Mission in the Central African Republic and Chad
MOH	Ministry of Health
MSF	Médecins Sans Frontières
MSF-B	Médecins sans frontières - Belgique
MSF-CH	Médecins sans Frontières - Switzerland
MUAC	Mid-upper arm circumference
NGO	Non-governmental Organisation
OCHA	Office for the Co-ordination of Humanitarian Assistance
PRONANUT	Programme National de Nutrition- DRC
SNNPR	Southern Nations, Nationalities, and People's Region (Ethiopia)
UN	United Nations
UNHCR	United Nations High Commission on Refugees
UNICEF	United Nations International Children's Emergency Fund
USAID	US Agency for International Development
WFP	World Food Programme
WHO	World Health Organization

Indicators and risk categories

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 of the NCHS reference.
- . **SEVERE WASTING**, defined as weigh-for-height index < -3 Z-scores of the NCHS reference.
- . **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)** 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/height²), MUAC and oedema, as well as different cut-offs are used. When reporting on adult malnutrition, the Reports always mention indicators 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.

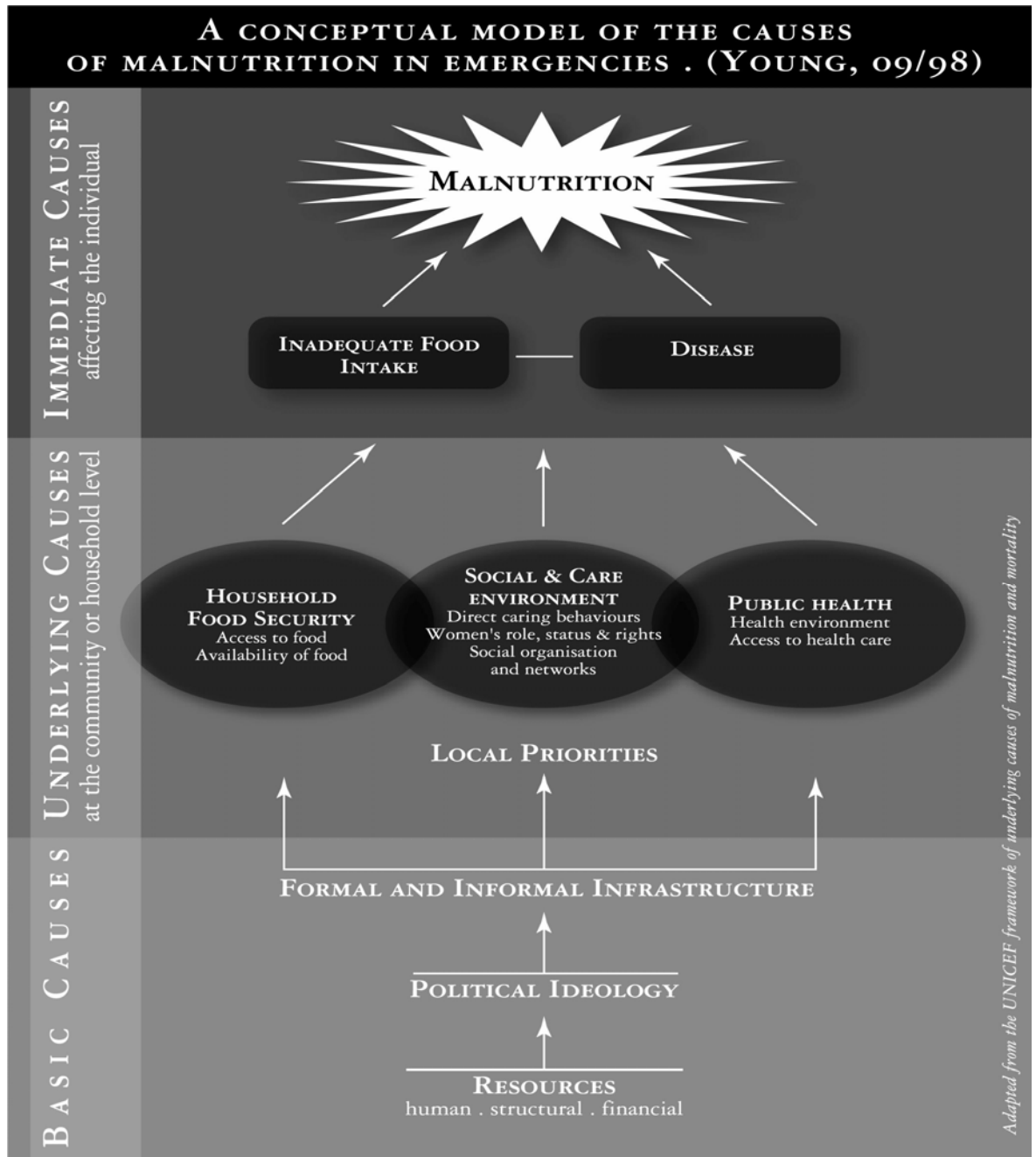
Classification of situations

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 quarterly 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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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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