

## SOMALIA - OVERVIEW

- Findings from the recently conducted nutrition assessments indicate typical levels of <sup>1</sup>global acute malnutrition (GAM) of **10.0-14.9%** in **Bari Region** (September 2006) and a **stable but still critical situation in Bossasso IDPs** (October 2006).
- Trends of admissions of severely malnourished children 6-59months from the <sup>2</sup>UNICEF consolidated database of <sup>3</sup>10 reporting Therapeutic Feeding Centres (TFC) across central and Southern regions have shown a **gradual reduction over the last 3 months**. This is in line with expected seasonal trends. Performance indicators for the TFC are very encouraging reaching the recommended <sup>4</sup>Sphere standards for cured, defaulter and death rates. Although trends in admissions into supplementary feeding centres (SFC) of children 6-59months indicate an overall increase over the last 3 months in central and Southern Somali this is as a result of **increasing numbers of centres and actors reporting, however admission rates of moderately malnourished children remain more or less stable in individual feeding centres**. Performance indicators for the SFC are also very encouraging again all achieving the recommended cut offs for cured, death and defaulter rates as recommended by the Sphere standards.
- With the onset of the Deyr rains, recent **flooding was reported in <sup>5</sup>Burao** with at least 1000 households affected. Preliminary findings do not suggest any immediate nutritional concerns. However due to the concerns over sanitation, stagnant water and access to safe drinking water there is a risk of water borne diseases which can have an impact on nutritional status. Additional flooding was reported in central and southern regions in October, the extent of the damage is yet to be verified.
- Access for the delivery and monitoring of **humanitarian assistance is being hampered in parts of Central and Southern** regions by ongoing insecurity and tensions in addition to poorly accessible roads due to the rains.
- Analysis of findings from 12 nutrition assessments conducted in Somalia in 2006 indicates that **Vitamin A supplementation** coverage in the 6-59 months old category **exceeds 50%** in most areas, but remains below the recommended minimum of 95% (Sphere 2004).

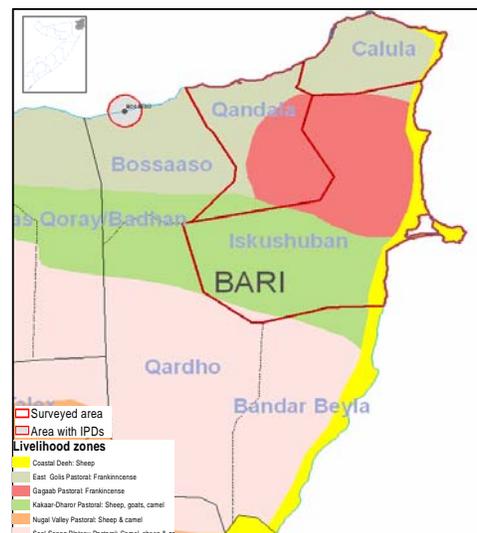
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## BARI Region - Allula, Kandala and Iskushban Districts Nutrition Assessment

Allula, Kandala and Iskushban districts in Bari region have a total population of about 87,110 persons (WHO NID figures, July 2006). Pastoralism is the main livelihood system, with substantial contribution from frankincense and fishing. The area is very remote, with poor infrastructure limiting access to health services, income opportunities and utilization of resources. The FSAU Post *Gu* 2006 analysis classified this area to be faced with an Acute Food and Livelihood Crisis. A nutrition assessment was therefore prioritized.

From September 14<sup>th</sup> to 27<sup>th</sup> 2006, the end of <sup>6</sup>*Hagaa* Season, a joint nutrition assessment was conducted by FSAU in collaboration with UNICEF, MOH, SRCS, AID and CAS. The standard two stage cluster sampling methodology was used and 919 children aged 6-59 months assessed for nutrition status, and 907 households for retrospective mortality rate (90 days).

Findings indicate a global acute malnutrition (GAM), of **13.8%** (CI: 11.0 -16.6) with a <sup>7</sup>severe acute malnutrition (SAM) of **1.6%** (CI: 0.9- 2.4). These results are consistent with the long term estimates of global acute malnutrition (10-14.9%) for the area and indicate a serious nutrition situation (WHO). Findings from a nutrition assessment conducted in these districts in September 2002 indicated a serious situation (WHO Classification) with a GAM of 12.6% (CI: 10.6 – 14.9). Additional findings indicate that 27.9% and 1.5% of the assessed pregnant (N=103) and non pregnant women (N=421) respectively, were at risk of malnutrition based on MUAC<sup>8</sup>. The retrospective under five mortality rate of **0.99** (CI: 0.30-1.69) and crude death rate of **0.37** (CI: 0.16 – 0.57) deaths/10,000/day are within acceptable levels (Sphere and WHO). Additional findings are summarized in the table on page 2.



<sup>1</sup> Global Acute Malnutrition GAM is measured as WHZ <-2 Zscores or oedema

<sup>2</sup> UNICEF Consolidated database of feeding centre statistics, October 2006

<sup>3</sup> ACF – Wajid, Modadishu Nrth & Sth, MSFB-Huddur, GHC –Bhawa,Luuq, Doolow, GHarey, Sos-Halwa, MSFH-Merere

<sup>4</sup> Sphere 2004 recommended cut offs: TFC cured >75%, defaulter <15%, death <10%, SFC: cured >75%, defaulter <15%, death <3%

<sup>5</sup> Joint Government and Interagency Rapid Flood Assessment, Burao, 20<sup>th</sup>-22<sup>nd</sup> October 2006

<sup>6</sup> *Hagaa* - the dry season occurring in July - September

<sup>7</sup> Severe Acute Malnutrition is measured as WHZ <-3 or oedema

<sup>8</sup> MUAC < 23.0 cut-off was used for pregnant; and MUAC < 18.5 cm for the non-pregnant women

The poor nutrition situation is mainly attributed to morbidity and poor child feeding practices. Analysis of findings indicates significant association between acute malnutrition and morbidity (p=0.01). ARI (p=0.04) and Diarrhoea (p=0.026) had significant associations with malnutrition with children suffering from ARI almost 1.5 times as likely to be malnourished compared to those who did not (RR=1.43; CI: 1.02 – 2.01). The high incidences of morbidity are due to poor access to health services (including low immunization coverage) and poor water and sanitation. Incidences of diarrhoeal diseases showed association with consumption of water from unprotected sources (p=0.008) which are prone to contamination. There are no public health services in Allula and Kandala and only one MCH center in Iskushban where health services can be accessed.

The high nutritional risk in pregnant women (N=103) is possibly attributed to morbidity, with 25.8% of the assessed women having suffered from an illness in the preceding one month. Unfortunately, there is limited access to maternal and child health care (only one MCH centre located in Iskushban, serves the three districts) which may have predisposed the pregnant to additional nutritional risk.

SUMMARY OF FINDINGS			
Indicator	No	%	(95% CI)
Number of households assessed	501	100	
Under fives (6-59 months old) screened during the assessment	919	100	
Global acute malnutrition (WHZ<-2 or oedema)	127	<b>13.8</b>	11.0 - 16.6
Severe acute malnutrition (WHZ<-3 or oedema)	15	<b>1.6</b>	0.9 - 2.4
Oedema	2	0.2	0.0 - 0.5
In prior 2 weeks, children reported with:			
any illness	438	47.7	44.4 - 50.9
Diarrhoea	258	28.1	21.2 - 35.0
ARI	236	25.7	18.8 - 32.5
Febrile illness	181	19.7	17.2 - 22.4
Suspected measles	25	2.9	1.3 - 4.6
Children (9-59 months) immunised against measles (N=852)	250	29.3	19.2 - 39.4
Children supplemented with Vitamin A in last 6 months	441	48.0	37.3 - 58.6
Children immunized against Polio	771	83.9	77.5 - 90.3
Households who reported consuming ≥4 food groups	465	92.8	90.1 - 94.8
Children introduced to other foods before the age of 6 months	249	86.8	82.3 - 90.5
Main source of drinking water: unprotected wells/berkads	353	70.5	66.2 - 74.4
Under Five Mortality Rate (U5M) as deaths/0,000/day		<b>0.99</b>	0.30 - 1.69
Crude Mortality Rate (CM) as deaths/10,000/day		<b>0.37</b>	0.16 - 0.57

Child feeding practices are sub-optimal with only 44.6% of assessed children aged 6-24 months currently breastfed with 86.8% of the children prematurely introduced to complementary foods before the recommended age of six months. The frequency of feeding is poor with about 89.2% of the assessed children fed less than the recommended minimum of <sup>9</sup>five times a day.

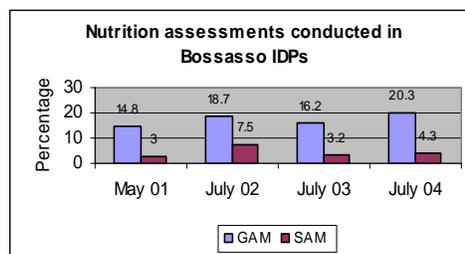
Additionally, there was limited access to fish (19.6%), due to the closure of fishing season. (This follows the high and rough sea tides in summer: June – September), which may have minimized access to some nutrients.

Mitigating factors include increased access to and consumption of milk following good *Gu* 2006 rains. Over 86% of the assessed households reported to have consumed milk in the preceding 24 hours to the assessment. Additionally, dietary diversity was high with 93% of the households consuming 4 or more food groups. Qualitative data indicates social support networks and sale of frankincense as the main source of income.

Recommendations include sustained long term approaches to access food, enhanced health care services and increased access to safe water for consumption, in addition to nutrition education to enhance appropriate infant and child feeding practices.

### BARI Region - Bossasso IDPs Nutrition Assessment

Bossasso town serves as the main seaport and facilitates trade between parts of Somalia, Zone V of Ethiopia and the Gulf States. The relative peace and occasional job opportunities in Bossasso have made it host a large population of internally displaced persons fleeing from conflict and food insecurity in central and southern parts of Somalia and Ethiopia. While a proportion of the migrants have settled in town, many other poor groups live in appalling conditions in the outskirts of Bossasso town and are predisposed to serious health and nutrition problems. Exhaustive nutrition assessments conducted in the IDP camps over the previous 5 years illustrate a persistent critical situation with rates never falling below 14.8%. (See chart). The IDP community mainly rely on casual employment and petty trades for their livelihood.



From 30<sup>th</sup> September to 9<sup>th</sup> October 2006 (beginning of the <sup>10</sup>*Deyr* Season), a joint nutrition assessment using <sup>11</sup>'exhaustive' methodology was conducted by FSAU, UNICEF, MOH, SRCs, AID, SRDA and CAS in Bossasso town IDP camps. A total of 2580 children aged 6-59 months, measuring 65-109.9 cm in height/length were assessed. Additionally, a total of 2439 households were assessed for mortality data. Findings indicate a GAM of **15.5%** and SAM of **2.3%** with four cases of oedema (0.15%). This shows a critical malnutrition level according to WHO classification **however is in line with previous assessments conducted at the same time over the last 5 years**. In addition the results indicate an improvement from the most recent assessment conducted in 2004, where **20.3% GAM** was reported possibly linked to the effect of the drought conditions experienced at that time. Additional findings indicate retrospective crude and under-five mortality rates of **0.45** and **1.34** deaths /10,000/day respectively, which are acceptable according to WHO classification. This also shows an improvement from the results of July 2004 that recorded under-five mortality rate of 2.32. The under-five mortality was attributed to diarrhoea, measles, malaria, ARI and reasons related to complications during delivery. Morbidity was high, with at least 30.2% of all the assessed children reported to have suffered from at least one of the communicable childhood illnesses two weeks prior to the study (one month for measles cases). Majority (68.2%) of the IDP households have no access to sanitary facilities hence use bush/ open field for human faecal disposal. Additional findings are provided in the table.

<sup>9</sup> Facts for Life 2002

<sup>10</sup> <sup>10</sup> A wet season occurring in October-December

<sup>11</sup> The exhaustive methodology was applied to allow for comparability with previous assessments where the same method was applied

The main sources of income for the households are casual labour and petty trade while the major source of food was purchasing. Food prices are high with a 15% increase in cereal prices recorded in Bossasso market between January and July 2006 (FSAU Market Update Aug 2006). A small proportion (1.9%) of the households relies on food aid as main source of food.

Indicator	No.	%
Number of households	1654	100
Under five children screened	2580	
Global Acute malnutrition WHZ<-2 or oedema	400	15.5
Severe acute malnutrition WHZ<-3 or oedema	60	2.3
Oedema	4	0.15
In prior 2 weeks, children reported with: Any illness	780	30.2
diarrhoea	561	21.7
ARI	191	7.4
Febrile illness	204	7.9
Measles	54	2.2
Children supplemented with Vitamin A in preceding 6 months	1851	71.7
Children (9-59 months) immunized against measles N=2422	1420	58.6
Children immunized against Polio	2508	97.2
Children(6-24 months) breast feeding N=978	598	61.1
Children breastfed on demand	337	56.3
Households who reported consuming >= 4 food groups	1647	99.6
Main source of water: berkads (N=1654)	1408	85.1
Crude Mortality Rate( as deaths/10,000/day)		0.45
Under five mortality Rate (U5MR) as deaths/10,000/day		1.34

Analysis of findings indicates morbidity and sub-optimal child care practices as main contributing factors to the critical nutrition situation. Morbidity is significantly associated with malnutrition with children reported to have been ill being one and half times more likely to be malnourished than those who were not sick (p=0.00003). Diarrhoea (p=0.00004), suspected malaria/febrile illness (p=0.01) and ARI (p=0.005) in particular, were associated with malnutrition. Faecal disposal into the bush/ open field by 68.2% of the IDP household's risks water contamination and may have contributed to the diarrhoeal incidents. Age is significantly associated with malnutrition with those aged 6-24 months being 1.64 times more likely to be malnourished than those above 25 months (p=0.0006). This may be attributed to the poor child feeding practices of children in this age group. Qualitative information indicates sub-optimal practices of giving children water/sugar solution immediately after birth, and introduction of complementary foods to infants after their first month of life as rampant.

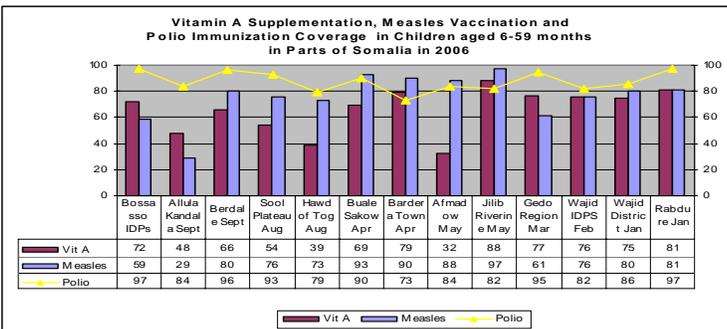
Most IDP households have limited access to income (petty trade and occasional casual labour) and yet depend on purchase to access food. This predisposes them to times of stress when access to food can be irregular and reliant on income opportunities. In the preceding 30 days to the assessment, the poor coped by shifting to less preferred/less expensive foods, borrowing or begging for food, or reducing the number of meals.

Dietary diversity in the majority of the households is a mitigating factor. Majority of the households (98.8%) consumed four or more food groups<sup>12</sup> in previous 24 hours to the assessment, mainly comprising of cereals, meat, milk and sugar.

The assessment team recommends both short and long-term efforts that address increased access to income and food among the poor and destitute in IDP camps, rehabilitation of malnourished children, improved quality of water and environmental sanitation to curb diarrhoeal diseases, provision of sanitary facilities, and nutrition education on appropriate infant and child feeding practices.

### Vitamin A Deficiency and Supplementation Coverage in Somalia

Although there has been an improvement in the coverage of Vitamin A supplementation and Measles vaccination following increased access to humanitarian interventions, **these remain below the recommended 95% (Sphere 2004)**. This is attributed to limited access by community members to health facilities offering EPI services due to distance, lack of health facilities and/or insecurity. In most areas, communities' access health care from health posts which, unfortunately, do not have the capacity to provide immunization, in addition lack the resources (staff and logistics) to access the medical supplies mostly provided at the larger health centre level. Additionally, in some areas, caregivers are unaware of or misinformed of the importance of Vitamin A Supplementation and Measles vaccination and opt to consult traditional healers on consequent complications. The relatively high Polio coverage indicates that, with intensified effort, it should be possible to access a higher proportion of children and hence increased Vitamin A supplementation and Measles vaccination.



Analysis of data from twelve nutrition assessments conducted in Somalia in 2006 indicate varied levels of Vitamin A supplementation, Measles immunization and Polio immunization coverage in the 6-59 months age category (See chart).

- Vitamin A supplementation coverage ranges from **32%** (Afmadow, May'06) to **88%** (Jilib Riverine, May'06).
- Measles vaccination coverage in the 9-59 months age category, ranges from **29%** in the Allula, Kandala and Iskushban districts (Sept'06) to **97%** in Jilib Riverine (May'06).
- Polio immunization coverage ranges from **73%** in the Hawd of Toghdeer to **97%** in Rabdure (Jan'06).

Amidst the sub-optimal coverage of Vitamin A supplementation, consumption of Vitamin A rich foods (including fruits and vegetables) is negligible for the majority. Access to Vitamin A fortified products such as vegetable oil is limited to the vulnerable members of the community registered for humanitarian food distribution for a particular period of time (or those who are able to access these products after the food distribution exercise). Due to lack of nutrition policies in most parts of Somalia, it is difficult to verify whether or not the vegetable oil distributed by local agencies and business community (social support) is fortified and thus a significant source of Vitamin A. Since Vitamin A plays a major role in boosting immunity and contributes to minimize disease incidents and outbreaks,<sup>13</sup> morbidity levels are likely

<sup>12</sup> The FAO food grouping system

<sup>13</sup> Nutrition Updates for January – September 2006

to be exacerbated by vitamin A deficiencies in most of the communities. Below are two case studies from Huddur and Beletweyne districts which illustrate the impact of Vitamin A deficiency in children:

#### Case 1- Vitamin A Deficiency in Beletweyne of Hiran Region

Abdillahi\* (38), his wife Fatuma and five children migrated from Ethiopia into Beletweyne eight years ago following flooding and food shortages. They have no asset and survive on income acquired through irregular casual labour. Fatuma started breastfeeding Aden (now 20 months old) four days after delivery due to alleged lack of breastmilk. At three months, Aden 'refused' breastmilk and was put on diluted fresh and fermented cow's milk (*Garoor*) and sugar solution until he turned 7 months. He was introduced to the family diet which mainly comprised of cooked sorghum paste (*Soor*), sugar, oil and rice. Currently, the family also consumes meat twice in a week, if available. In the 24 hours preceding a visit from the FSAU, the family consumed maize, flour, tea and sour milk (*Garoor*).

Discussions between Fatuma and the FSAU nutrition analyst in Beletweyne who visited in Mid October 20th indicates that Aden (see the Photo) first experienced signs of Vitamin A deficiency at the age of 16 months. These included difficulty seeing at night, dry skin, dry hair, oedema in face and legs and increased infections of diarrhoea and respiratory tract. At the age of 18 months, he developed Measles. At this stage, Fatuma consulted a traditional healer who misguided her (to cover the child with animal skin, to avoid fats/oils, neither to drink red coloured foods nor dress the child in red coloured clothes, nor bathe the child until he recovered). Fatuma mentioned that she did not visit the health facility as she feared that the Measles injection and Vitamin A supplements would lead to Aden's death. Nevertheless, Aden had received the other vaccinations as confirmed by the child growth card. Despite adherence to the traditional healer's advice, Aden's eye problems worsened with the colour changing to slightly reddish and the eyeball rupturing. At this stage, Fatuma reconsidered her decision and approached the MCH. She received medication but unfortunately, by this time, Aden's eye had become blind. FSAU's Nutrition Analyst (also health professional) visit to Fatuma's homestead coincided with the time when Aden is on medication. He established Aden's current situation as the last stage of Xerosis of the bulbar conjunctiva, where there is a muddy pigmentation of the cornea in one eye (Keratomalacia stage), while the other eye has already ruptured, exuding the contents and subsequently the globe is already shrunk. Aden's one eye is now blind (See photo).

Seynab (42 months) and Ali (34 months) are brothers to Aden, also reported to be suffering from night blindness in the preceding two weeks and had not received Vitamin A supplementation. The FSAU nutrition analyst in Beletweyne referred the two children to the IMC managed MCH center and have since received Vitamin supplementation and other systematic treatments.



#### Case 2: Vitamin A Deficiency in Abakbeday Village of Huddur District.

Mohamed\*, a ten year old boy lives in Abakbeday village of Huddur District with his grand mother, Shukri (67). The poor agricultural household owns a small piece of land and no livestock. Shukri is old and weak and unable to cultivate sorghum, the main staple, even when the cropping season is good. Mohamed and Shukri mainly depend on social support from neighbours and close relatives to offset food deficits. They consume a poorly diversified diet (tea and *Ambuulo* i.e. boiled sorghum) comprising of two food groups (sugar and cereal) on routine basis. Unfortunately, this is a poor diet that has predisposed them to micronutrient deficiencies.

A month ago, Mohamed developed visual problems including: night blindness, xerosis and bitot spots on his eyes (See the photo). Shukri and Mohamed have since visited the health post in the village, but been unable to access help or Vitamin A supplements. Discussions between the FSAU nutrition analyst and the Community health worker (CHW) indicated that Vitamin A capsules are not incorporated in the Health Post drugs kit, thus their unavailability this is due to. The CHW advised on an improved diet and also referred Mohamed to the Huddur health centres for detailed examination and treatment. Unfortunately, Shukri does not have the means to travel the 18 km distance. She is therefore currently feeding Mohamed on meat (borrowed from neighbours) three times a week however, the situation has not improved. Vitamin A deficiency has become a recurrent problem for Mohamed, having been treated from it six months ago. According to the CHW, the number of cases with Vitamin A deficiency in the area has increased in the recent months. He attributes it to intake of a poor quality diet and lack of Vitamin A supplementation. The FSAU has provided this feedback to IMC, who are following up. UNICEF/IMC is scheduled to undertake a Measles vaccination /Vitamin A supplementation campaign in Abakbeday village before the end of the year, subject to access.

\*Real names not used to conceal identity



Based on the analysis of the findings from the nutrition assessments and the case studies and acknowledging the challenges for implementation of programmes in Somalia, FSAU recommends intensified efforts to increase access to Vitamin A. This can be achieved through increasing Vitamin A supplementation through **routine supplementation** in health centres / posts or through **campaigns**. Efforts also need to focus on **increasing consumption of Vitamin A rich foods** through nutrition education on the benefits of Vitamin A rich foods and on simple processing and preservation techniques to enhance Vitamin A status of foods. In addition longer term recommendations for food fortification with Vitamin A, such as oil or sugar, need to be considered when opportunities arise. Finally a baseline analysis of micronutrient deficiencies to estimate prevalence rates is key to determine the **public health significance of Vitamin A deficiency** in Somalia with efforts to then develop a simple identification and monitoring surveillance system linked to response at health centre level. .

#### Training and courses announcements

- Public Health in Complex Emergencies Training Program to be held at Makerere University Institute of Public Health (MUIPH) in Kampala on November 6-18, 2006. For more details, contact Dr. Christopher Orach on cgorach@iph.ac.ug.

#### Other related publications and Releases

- FSAU: Food Security & Nutrition, October 2006
- FSAU/FEWSNET Market Data Update, October 2006.
- FSAU/FEWSNET Climate Data Update, October 2006



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