

Sudan Nutrition Bulletin

Second issue (Jan – Mar 2011)

National nutrition program background:

Improving the health and nutrition status of the people of Sudan is one of the priorities for the Federal Government of Sudan, and is vital to its development. Malnutrition undermines individual well being, reduces national productivity, and is the result of direct and underlying causes in a variety of sectors - including health, agriculture, water and sanitation, education, humanitarian aid, security...etc - which are in turn dependent on wider economic, social and political factors. Many actors are currently engaged in preventing and treating malnutrition in both emergency and development settings, however strengthening of coordination and standardization of efforts is required to ensure wide scale of service provision to beneficiaries all across the country. In response to the complex nutrition situation in Sudan, the national nutrition program within the national ministry of health leads a wide range of activities to ensure timely identification, prevention and treatment of malnutrition, with support and collaboration from partners.

National nutrition bulletin second issue

The National Nutrition Program (NNP) is delighted to be releasing this second issue of the national nutrition bulletin where you will find information on nutrition interventions carried out during the first quarter of this year in terms of the major programme activities being implemented across the country, summary to the main aspects of the nutrition program namely; growth monitoring and promotion, management of severe and moderate acute malnutrition (both community based and facility based), micronutrient deficiencies control, and activities to improve infant and young child feeding practices, in addition to a summary update on the situation in Darfur and a summary of WFP's food security monitoring system (FSMS) round 9.

Growth monitoring and promotion:

The WHO defines GMP (Growth Monitoring and Promotion) as “not only to measure and chart weight of children, but use this information on physical growth to counsel parents in order to motivate actions that improve growth” (WHO 1986).

GMP is useful to beneficiaries since it allow great opportunity to enhance the transfer of important health and nutritional information through one to one counseling and by providing the educator with data concerning children's growth patterns that can be used in tailoring advice to particular dietary and health needs. It also allows for the early identification of children at high risk of malnutrition, so that causes of faltering growth can be explored and addressed while the problem is still easily reversed.

A total of 425803 GMP individual sessions has been successfully achieved across Sudan during this quarter accounting for 12.5% of the quarterly target, however only 0.8% of under 5 children in Sudan adequately attended growth monitoring and promotion sessions indicating that small proportion of children are frequently attending these sessions while others-the majority-never attend.

Note adequate attendance of GMP is defined as:

- Successful 4 visits as minimum during the first year of age.
- Successful 3 visits as minimum during the second year of age.
- Successful 2 visits as minimum during the third up to the fifth year of age.

Khartoum state showed the highest coverage with percentage of individual sessions achieved reaching 42.3% followed by Blue Nile state 32.4% then Northern state 17.3%. While in River Nile 4.8% of under 5 years old children adequately attended GM&P sessions, 2.6% in Khartoum and in

Sudan Nutrition Bulletin

Second issue (Jan – Mar 2011)

Sudan only 0.8% of the targeted children adequately presented to GM&P. See figure 1 and 2 below:

Figure 1: Percentage of GM&P individual sessions achieved for under 5 children in 15 northern states Jan – March 2011.

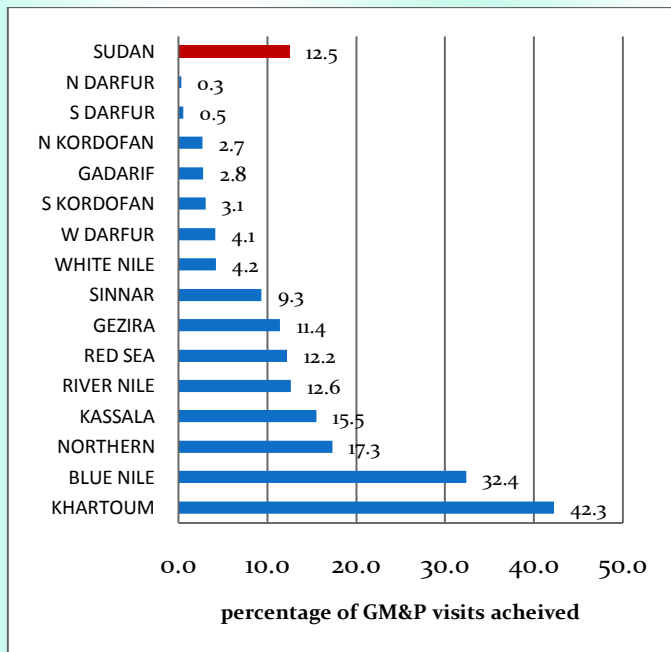
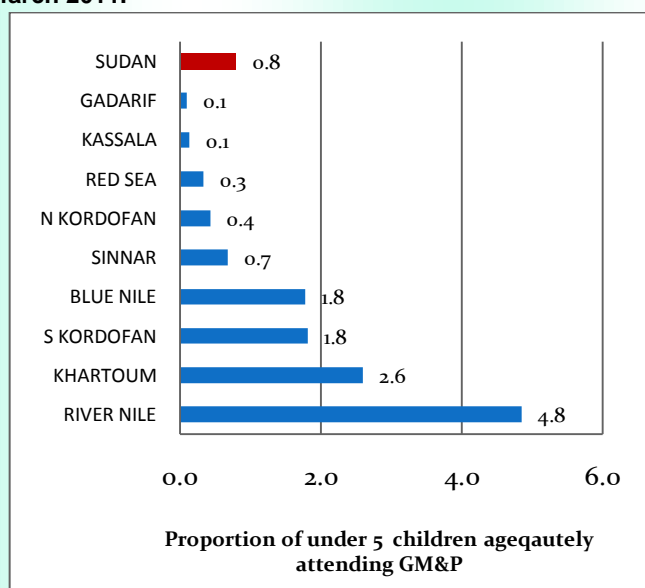


Figure 2: proportion of under 5 children who adequately attended growth monitoring and promotion sessions Jan – March 2011.



Severe and moderate acute malnutrition (SAM &MAM) management:

CMAM services were scaled up during the first quarter of the year 2011 and the access to services was improved by establishing 16 CMAM services centers in the CMAM implementing states. CMAM sites established include: 8 SFP sites (7 in North Darfur and 1 in Red Sea state), 5 CMAM outpatient care sites in Blue Nile state and 3 TFCs in west Darfur state. During the reporting period, 283 health and nutrition staff was trained on management of SAM in outpatient care centers following CMAM national guidelines (62 in West Darfur, 100 in North Darfur, 49 in South Kordofan, 25 in Blue Nile and 47 in Gadarif state). SAM case finding, referral and follow up was strengthened by training of 322 community outreach workers and volunteers (200 in Blue Nile, 50 in North Darfur, 40 in South Kordofan and 32 in Gadarif state).

One orientation workshop on CMAM was organized in Red Sea state this quarter. The workshop was attended by 100 participants representing MOH, other public sectors, community leaders, NGOs and women groups.

Table 1: Admissions SAM and MAM cases, January – March, 2011

STATE	Total SAM Admissions	Total MAM Admissions
NORTHERN	59	-
RIVER NILE	80	-
KHARTOUM	540	3169
WHITE NILE	120	-
RED SEA	669	8136
KASSALA	1075	9759
GADARIF	302	-
GEZIRA	-	-
SINNAR	239	-
BLUE NILE	553	49
N KORDOFAN	1005	-
S KORDOFAN	553	1687
N DARFUR	2404	6400
S DARFUR	2118	6509
W DARFUR	1159	2963
SUDAN	10876	38672

Sudan Nutrition Bulletin

Second issue (Jan – Mar 2011)

Figure 3: SAM management performance indicators

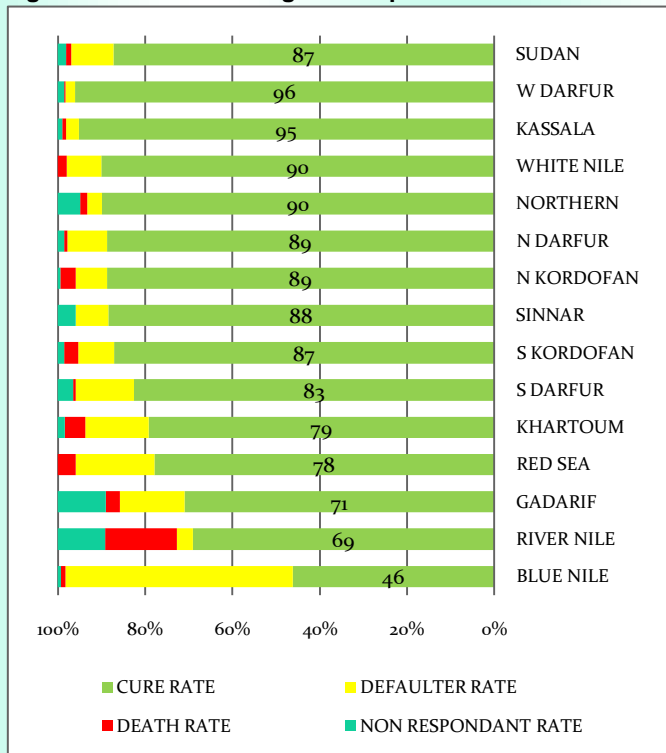
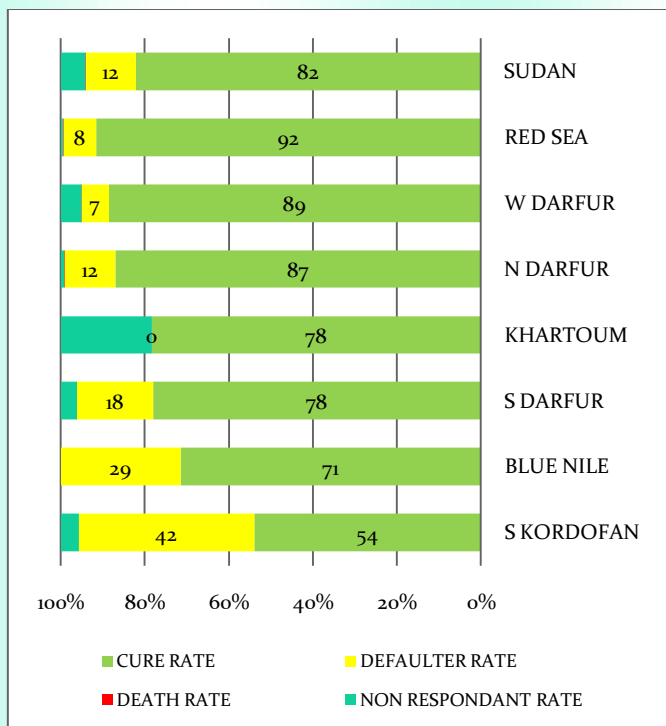


Figure 4: MAM management performance indicators



Micronutrients:

Micronutrients are required by humans and other living things throughout life in small quantities to orchestrate a whole range of physiological functions, but which the organism itself cannot produce. For people, they include dietary minerals in amounts generally less than 100 micrograms/day.

The Micronutrient Initiative (MI) is the leading organization working exclusively to eliminate vitamin and mineral deficiencies in the world's most vulnerable populations. MI offers its knowledge and technology to the food industry to add nutrients, such as iron and folic acid, to food cost-effectively without affecting its quality or taste, helping to improve the quality of life for women and their families.

The most common micronutrient deficiencies in Sudan are iodine, iron and vitamin A which are currently major targets for public health programmes to control their deficiency and prevent their health-related consequences. Iodine deficiency affects children and women. Twenty two per cent of school age children have goiter (1997, national nutrition survey). The prevalence is even greater in some regions of the country (1999). National household iodized salt consumption in Sudan is 9.3% (≥ 15 PPM) according to SHHS 2010. Salt iodization; is the recommended strategy for ensuring adequate human iodine intake. To iodize salt, potassium iodate is added to salt after it is refined and dried and before it is packed. Adequate iodized salt content of iodine is more than or equal 15 PPM (part per million), if the iodine content is less than 15 PPM at iodized salt consumption, it will not prevent iodine deficiency disorder in the population.

Currently existing interventions to address these deficiencies include:

Sudan Nutrition Bulletin

Second issue (Jan – Mar 2011)

Supplementation

Distribution of vitamin A supplements to vulnerable groups (children 6-59 months and post partum mothers, and distribution of iron-folate tablets to pregnant women, in addition to parasite elimination programmes particularly intestinal worms that interferes with absorption of micronutrients e.g vitamin A depleting body stores and causing anaemia due to iron deficiency as a consequence of blood loss.

Legislation:

Strong efforts are being made lead by the national nutrition program to obtain a national law that enforces salt iodization are continuing since 2005 up to date, recently a comprehensive food fortification law is in process and is expected to be endorsed during the current year. In addition 4 states, namely; Sinnar, South Darfur, West Darfur and Kassala has developed and endorsed legislations at state level that prohibits the use of uniodized salt in their states.

Routine detection and treatment of cases of vitamin A deficiency is one of the important activities carried out by the national and states nutrition programs. Vitamin A deficiency if untreated can lead to serious eye complications and ultimately permanent blindness. During the first quarter 2011, 418 cases among under five years of age children and 1514 cases among above five years old children and adults suffering from night blindness-indicating presence of vitamin A deficiency-were identified and treated (2011 quarter 1 monthly states reports). the highest number of vitamin A deficiency cases among less than 5 years was observed in north Kordofan state (140 children) followed by Red Sea state (127children) . Similarly high numbers of vitamin A deficiency among above five years children and adults were found in Red Sea state 366 cases, N. Kordofan 339 cases, and Khartoum 247 cases. See figures 5 and 6 below.

Figure 5: Vitamin A deficiency cases- under 5 years old

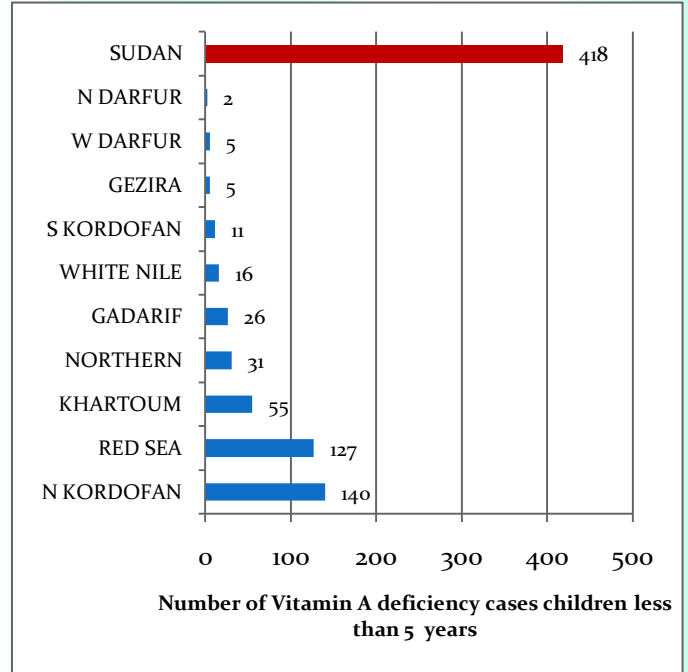
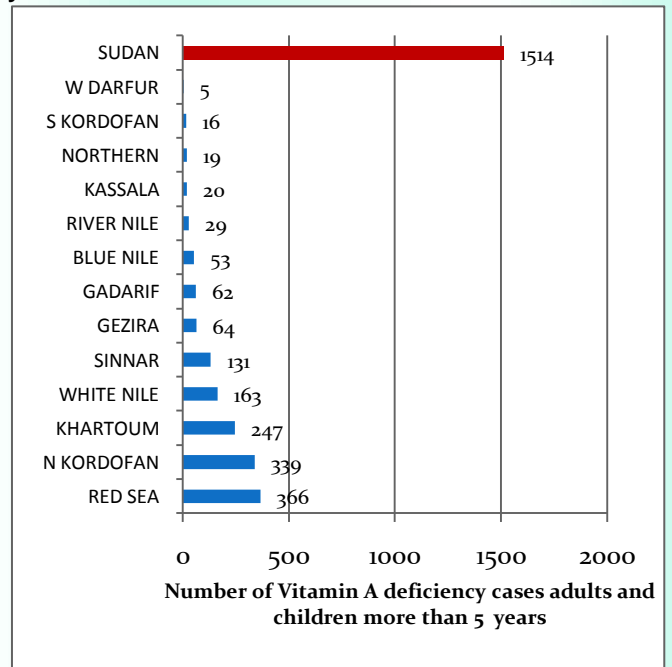


Figure 6: Vitamin A deficiency cases- Children above 5 years old and adults



Last vitamin A distribution campaign has been carried out in December 2010 with overall coverage among children 6 – 59 months of age reached 98 %, next round will be in April 2011. Post partum vitamin A supplementation coverage in Sudan first quarter 2011 is low at 14.0% with highest rates

Sudan Nutrition Bulletin

Second issue (Jan – Mar 2011)

observed in Kassala (37.1%), Khartoum (35.6%), Sinnar (32.0%) and River Nile (28.0%). North and South Darfur states showed the lowest rates of 0.9% and 0.6% respectively (Figure 7). Furthermore overall iron-folate coverage for pregnant women during the first quarter 2011 reached only 2.3% with 15.9% in South Kordofan and 10.2% in Kassala. See figure 8 below.

Figure 7: Post Partum vitamin A supplementation Jan - Mar 2011

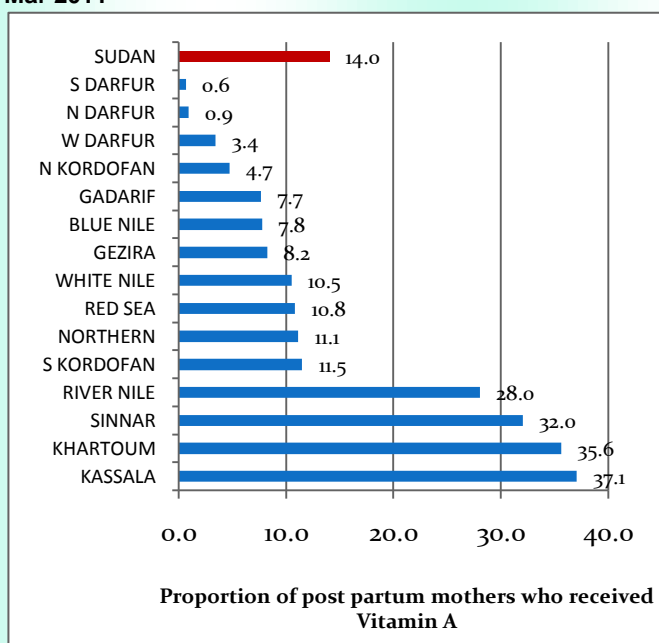
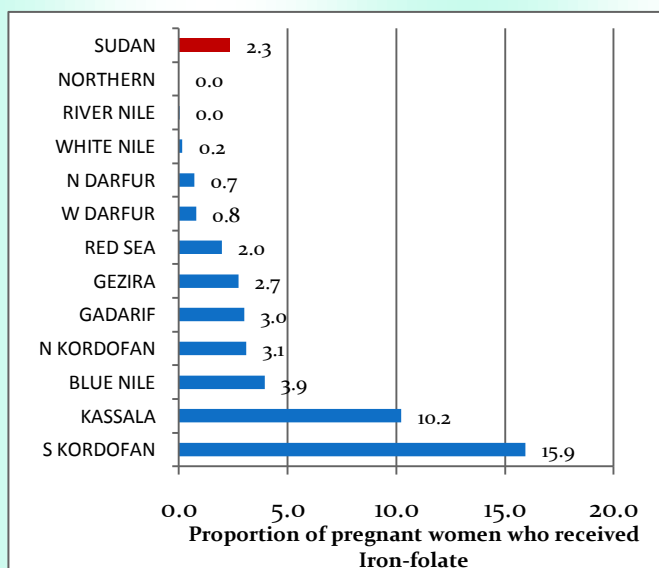


Figure 8: Iron- folate supplementation for pregnant women Jan - Mar 2011



Infant and young child feeding (IYCF):

Exclusive breastfeeding is defined as feeding a child through only breastfeeding, giving no other liquids or solids, not even water, with the exception of prescribed drops or syrups consisting of vitamins and mineral supplements or medicines, and expressed breast milk, it carries many advantages to the baby, mother, family and to the community:

Benefits for babies

Greater immune health:

During breastfeeding, antibodies pass to the baby. This is one of the most important features of colostrum & it has several anti-infective factors that protects the baby from infection particularly diarrhea these effects are compromised by giving anything else, even water..

Protection from Sudden Infant Death Syndrome:

Breastfed babies have better arousal from sleep at 2–3 months. This coincides with the peak incidence of sudden infant death syndrome.

Higher intelligence:

Testing the intelligence quotient (IQ) in 280 low birth-weight children at seven or eight years of age showed that those who were breastfed for more than eight months had verbal IQ scores 6 points higher (which was significantly higher) than comparable children breastfed for less time (Study by Horwood, Darlow and Mogridge (2001)).

Less diabetes:

Infants exclusively breastfed have less chance of developing diabetes mellitus type 1 than peers with a shorter duration of breastfeeding and an earlier exposure to cow milk and solid foods. Breastfeeding also appears to protect

Sudan Nutrition Bulletin

Second issue (Jan – Mar 2011)

against diabetes mellitus type 2, at least in part due to its effects on the child's weight

Benefits for mothers

Breastfeeding is a cost effective way of feeding an infant, providing nourishment for a child at a small cost to the mother. Frequent and exclusive breastfeeding can delay the return of fertility through lactational amenorrhea, though breastfeeding is an imperfect means of birth control. During breastfeeding beneficial hormones are released into the mother's body and the maternal bond can be strengthened. Breastfeeding is possible throughout pregnancy.

Bonding

Hormones released during breastfeeding help to strengthen the maternal bond. Teaching partners how to manage common difficulties is associated with higher breastfeeding rates. Support for a mother while breastfeeding can assist in familial bonds and help build a paternal bond between father and child.

If the mother is away, an alternative caregiver may be able to feed the baby with expressed breast milk. The various breast pumps available for sale and rent help working mothers to feed their babies breast milk for as long as they want. To be successful, the mother must produce and store enough milk to feed the child for the time she is away, and the feeding caregiver must be comfortable in handling breast milk.

Hormone release

Breastfeeding releases oxytocin and prolactin, hormones that relax the mother and make her feel more nurturing toward her baby. Breastfeeding soon after giving birth increases the mother's oxytocin levels, making her uterus contract more quickly and reducing bleeding.

Weight loss

As the fat accumulated during pregnancy is used to produce milk, extended breastfeeding—at least 6 months—can help mothers lose weight. However, weight loss is highly variable among lactating women; monitoring the diet and increasing the amount/intensity of exercise are more reliable ways of losing weight.

Natural postpartum infertility

Breastfeeding may delay the return to fertility for some women by suppressing ovulation. A breastfeeding woman may not ovulate, or have regular periods, during the entire lactation period. The period in which ovulation is absent differs for each woman. This lactational amenorrhea has been used as an imperfect form of natural contraception, with greater than 98% effectiveness during the first six months after birth if breast feeding is exclusive, without even the addition of water. However, it is possible for women to ovulate within two months after birth while fully breastfeeding and get pregnant again.

Long-term health effects

- Less risk of breast cancer, ovarian cancer, and endometrial cancer.
- A 2009 study indicated that lactation for at least 24 months is associated with a 23% lower risk of coronary heart disease.
- Although the 2007 review for the AHRQ found "no relationship between a history of lactation and the risk of osteoporosis", mothers who breastfeed longer than eight months benefit from bone re-mineralisation.
- Breastfeeding diabetic mothers require less insulin.
- Reduced risk of metabolic syndrome.
- Reduced risk of post-partum bleeding.

Sudan Nutrition Bulletin

Second issue (Jan – Mar 2011)

- According to a Malmö University study published in 2009, women who breast fed for a longer duration have a lower risk for contracting rheumatoid arthritis than women who breast fed for a shorter duration or who had never breast fed.

Benefits for Family & Community

- Less cost than the formula milk.
- Family planning.
- Less health care and treatment cost by reduced infant morbidity (respiratory infection, diarrhea ... etc)

Darfur Nutrition Update summary Jan – march 2011

Based on trends from feeding programme admissions and on available trend data from nutrition surveys in Darfur for this time of year, the nutrition situation is unchanged and is already following seasonal trends with a rise in numbers admitted to both therapeutic and supplementary feeding services over the first 3 months of 2011, despite the above-average 2010 harvest. Household food security as assessed by WFPs Food Security Monitoring System has improved during this quarter, although market prices have continued to rise.

WFP Food Security Monitoring System (FSMS) – Round 9, February 2011 summary

Results of the ninth round of Darfur FSMS data collected in February (post-harvest season) indicate that the majority of households in the three Darfur States have an acceptable food consumption score.

The cost of the minimum healthy food basket has continued to increase and was higher in February 2011 than in November 2010 (previous round). Price rises have been attributed to rise in cost of cereals, sugar and oil. Despite this, in general the food security situation has improved at this round with the vast majority of households reporting no food shortages in the previous 7 day recall period. This is in line with seasonal expectations. The Mid Upper Arm Circumference (MUAC) scores for North and West Darfur indicate that between 10-15% of children in IDP and resident communities are moderately malnourished with North Darfur having the highest proportion. MUAC measurements in mixed communities show that 3% children in North Darfur are moderately malnourished compared to 7% in West Darfur. Seven percent of under-5 children in North Darfur had severe acute malnutrition based on MUAC measurements.

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