

*NUTRITION SURVEY REPORT
BAIDOA DISTRICT
BAY REGION
SOMALIA*



*UNICEF SOUTH/CENTRAL ZONE OF
SOMALIA*

BAIDOA OFFICE

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1. INTRODUCTION

This nutrition survey is the tenth in a series of surveys agreed between UNICEF and FSAU throughout South and Central Somalia. UNICEF planned the surveys, conducted the fieldwork, trained enumerators, monitored survey activities and carried out data analysis and interpretation. UNICEF is grateful to IMC, SRCS, DMO, WHO and the Local Authority for facilitating the work in Baidoa District.

1.2 SURVEY JUSTIFICATION

UNICEF has supported a supplementary feeding programme in Baidoa town since July 1999 through MCH centres run by DMO, IMC and SRCS. By July 2000 the four town MCH centres were providing food supplements in the form of UNIMIX to some 3,700 children per month. Results from the Baidoa town nutrition survey undertaken in August 1999 depicted a high global malnutrition rate of 21.6%. Since that time UNICEF has distributed 265 MT of UNIMIX to 25,000 malnourished children in the four MCHs.

Since the end of the extraordinarily long dry 'jilaal' season in May 2000, Baidoa district has experienced good rains and temperatures conducive to a productive 'gu' harvest, due in August 2000. Expectations are that the harvest will return to the level of post war norms and this will reduce the need for general and supplementary food distributions. The decision to conduct another nutrition survey in Baidoa was made in order not only to compare the results with the previous data, but also to plan future health and nutrition interventions in Baidoa district. Unlike the 1999 survey, this one was conducted throughout the district and included samples from the displaced population, returnees and residents.

1.3 SURVEY OBJECTIVES

- To determine the level of malnutrition and oedema in Baidoa District by screening the Weight for Height measurement of children between 6-59 months or 65-110cm.
- To measure the determinant factors contributing to existence of malnutrition by recording the occurrence of diarrhoea and ARI diseases in the two weeks prior to the survey.
- To measure measles vaccination and Vitamin A supplementation coverage in Baidoa District and monitor performance in the past 6 months.
- To measure the extent of household movements during the changes in Baidoa District, which has impacted on aid service deliveries.
- To record and document the number of female-headed households to know the extent of families with no support and care from fathers.
- To compare families living in Baidoa town and those living in rural villages in Baidoa district.

2. BACKGROUND

2.1 General background:

With an estimated population of around 214, 000 people, Baidoa District is the second largest and the most populated in Bay region, containing more than 150 small rural settlements. Baidoa town is located 245 km west of Mogadishu and 240 km from the Ethiopian border with Somalia.

Political environment: Baidoa district has experienced periodic unrest since 1991, with regular inter-clan fighting greatly impacting on the local population. The 1997-1998 floods followed by several seasons of drought and poor harvests also effected the situation. Most recently, fighting and the recent changes of control between the SNA and RRA increased the suffering of the most vulnerable groups. However, since the RRA recaptured Baidoa town in June 1999 a significant number of people who were displaced in other parts of Bay, Benadir, Lower Shabele and Gedo regions have returned and livelihood and general security has improved.

Recent history of humanitarian assistance: During the first half of 2000, UNICEF provided support to 4 MCHs with static EPI services, one EPI mobile team and 40 Health Posts through SRCS, DMO and IMC. UNICEF has provided continuous supplementary food assistance to around 3,000 malnourished children every month in Baidoa MCH centres.

In the Water and Environmental Sanitation Sector, UNICEF rehabilitated Isha Spring in Baidoa town, a further eight boreholes (Midow, Awdiinle, Mileglow, Siedolow, Labatengero, Tabarow, Asha Farto, Gududo Dhunti) and 20 hand dug wells in surrounding villages, and supported cholera prevention and control through training for 72 social mobilisers, rehabilitation of the cholera treatment centre in the hospital and provision of chlorine to SRCS, Isha Spring committee, DMO, IMC and Baidoa Hospital.

Since July 1999 UNICEF has provided complete school supplies to 21 primary schools in Baidoa district, benefiting 4,591 children (33% girls), as well as training for 80 teachers. UNICEF has also rehabilitated 6 primary schools with 33 classrooms and two sports grounds, and provided sports equipment to several teams.

2.2 Food Security Context:

Around 30% of the population of Baidoa District are urban and 70% agro-pastoral. Agro-pastoralists and pastoralists are considered the most vulnerable groups, primarily due to the poor condition of much of the livestock, especially cattle, allied to continuing water shortage and failure of the Deyr harvest.

Rainfall: During July the region received no significant rainfall. However, intense rains with uniform distribution fell throughout Bay region in the previous few months, improving the pasture and water availability for livestock and humans. Water catchments remain quite full.

Food stock: Food aid continued to be delivered to Baidoa District by WFP and in the first half of the year two food convoys were able to travel on the main tarmac road between Baidoa and Mogadishu, which passes through Baidoa.

Cereal prices: Cereal prices remained high and supplies were limited in spite of relief food distribution, caused by failure of the previous harvest. The harvest, due in August, will improve this situation significantly.

Extracts from the regular FSAU Monthly Highlights, April – June 2000	
April	Scattered rains were received in the region, which is normal at this time of year. Districts like Baidoa; Dinsor, Berdale and eastern part of Qansahdere now have relief from the water scarcity, although Baidoa is still suffering. Pasture condition has generally improved due to the rains, particularly for camels and shoats. Pre-planted crops are germinating, but late planting and replanting is also taking place. Free seed distribution by FAO, World Vision and InterSOS has taken place in the region. Prices of staple food (sorghum and maize) have increased slightly, but food aid distributions may have impact on them for the coming weeks as food aid arrived from Merca through the main Mogadishu tarmac road on 23 rd of April. Prices of livestock also increased, due to higher demand from Mogadishu and Kenyan markets. The security situation in the region is very good with no tension between clans and rival groups
May	Compared to last Gu' season, this one seems to be normal. Good rains have been received with high intensity and uniformity in all the districts. As a result of this, water availability and accessibility, pasture and grazing have improved substantially. Livestock condition has become normal in terms of body weight and milk production. Land area cultivated increased due to the good rains. Agricultural employment opportunity increased dramatically. Staple foods such as sorghum and maize are scarce and highly expensive compared to last months. This is due to the crop failure in last season. Imported food is equally expensive and unaffordable for poor families. Supplies of fuel, wheat flour, rice and sugar have arrived through the main Mogadishu tarmac road. Prices of camels are very high, whereas cattle and shoats are at a reasonable price. The price of one goat against a bag of sorghum is a ratio of one to one (1-1) due to the inaccessible roads. Security situation over the entire region is very calm and stable for the time being.
June	Bay region received no rains this month, but due to the rains during the previous month, pasture and water availability is sufficient. However, the food security situation is not good, as the prices of staple food are very high due to lack of cereal stock at household level. The prices of imported goods are high due to closure of roads. Besides the prices of livestock (Cattle, goats and sheep) decreased as sales increased. Due to moderately varying value of livestock, a local/goat/sorghum term of trade in Baidoa has shown a decrease of 25%. Security situation over the entire region is very calm and stable for the time being.

2.3 Health context:

UNICEF provided support to 4 MCHs with static EPI services, one EPI mobile team and 40 Health Posts through SRCS, DMO and IMC.

2.4 Water and environmental sanitation:

During the survey no major water problems were seen in Baidoa District. The main Gu season rains had filled all water ponds. UNICEF rehabilitated Isha Spring, eight boreholes and 10 hand dug wells and trained more than 130 well operators, health workers and teachers in repair and maintenance of systems and cholera prevention. UNICEF also provided chlorine to SRCS, Isha Spring committee, DMO, IMC and Baidoa Hospital and constructed nine sets of latrines and hand washing facilities for primary schools.

3. METHODOLOGY

Cluster sampling methodology was used to select 30 clusters randomly from four sectors in Baidoa town and rural villages in Baidoa districts. A total of 10 clusters were from Baidoa town and 20 clusters from rural villages in the district. A total of 909 children between the heights of 65 – 110cm were screened during the survey.

3.1 STUDY POPULATION AND SURVEY DESIGN

Baidoa District is one of the most populated in Bay regions and contains more than 150 villages.

An accurate census could not be undertaken prior to the survey due to the time limit and lack of resources.

3.2 DATA COLLECTION

The nutrition survey was conducted between 4 and 13 July 2000. A total of 909 children were interviewed and screened for weight for height. Their caregivers were interviewed as to whether children had received Vitamin A or Measles vaccination in the past 6 months, or had suffered from diarrhoea or ARI diseases in the two weeks prior to the survey.

3.3 ACTIVITIES

The survey was carried out by ten enumerators and five supervisors assisted by survey guides. UNICEF SCZ M&E Officer assisted by Programme Survey Consultants who participated in previous nutrition surveys conducted three days training for enumerators and co-ordinated the fieldwork assisted by three of the MICS survey regional supervisors. The SCZ M&E Officer made the data analysis of the nutrition survey results and training. Interviewers were selected based on their experience with previous nutrition surveys and recent multi-indicator cluster surveys in Bay region. Baidoa Hospital management assisted in the identification of qualified persons.

4. SURVEY RESULTS

The attached table indicates the names of the areas of Baidoa town as well as the rural villages in the district, the estimated populations and total clusters identified. This was based on the population estimate used during the 1999 NID campaign and was provided by the WHO NID Consultant in Baidoa.

The table below indicates some of the different characteristics of those interviewed, as well as the number and the percentage of children assessed who had suffered diarrhoea or ARI in the previous two weeks and the percentage of malnutrition amongst urban and agro-pastoral populations.

Characteristics	Urban	Agro-pastoral	Total	%
Female headed households	27	35	62	11
Male headed households	165	355	520	89
Resident households	133	327	460	79
Returnees	50	54	104	18
Displaced	9	9	18	3
Total households	192	390	582	100
Global malnutrition	48	108	156	17
Moderate malnutrition	41	85	126	14
Severe malnutrition with Oedema	7	23	30	3
Assessed children with ARI in past two	58	98	156	17

Characteristics	Urban	Agro-pastoral	Total	%
weeks				
Assessed children with diarrhoea in past two weeks	29	87	116	13
Vitamin A supplementation in past 6 months	171	168	339	37.3
Measles immunisation coverage	192	193	385	42.4
Measles immunisation in past 6 months	139	112	251	27.6

The table below indicates that 38% of children measured were aged between 6 – 23 months while 62% were aged between 24 – 59 months. Some 33% were urban residents and 67% from agro-pastoral families.

Age group	Urban	%	Agro-pastoral	%	Total	%
6 – 23 months	105	34.5	237	39	342	38
24– 59 months	199	65.5	368	61	567	62
Total	304	33	605	67	909	100

The table below indicates that 2.8% of the children were severely malnourished, 13.9% were moderately malnourished and 0.5% were with Oedema. Eighty three percent were not malnourished. The severe malnutrition rate varies slightly between the different groups in Baidoa district. Children of urban families are the worst off, with global rates of 18% including 4.6% severe malnutrition. The agro-pastoral children follow, with 18% including 3.8% severe malnutrition.

Characteristics	≥ -2 Z-Score	-3 Z-Score & < -2 Z-Score	< -3 Z-Score	Oedema	Total
Urban	256 (84%)	41 (13.4%)	5 (3%)	2 (1.6%)	304
Agro-pastoral	497 (82.1%)	85 (14.1%)	20 (3.3%)	3 (0.5%)	605
Total	753 (82.8%)	126 (13.9%)	25 (2.8%)	5 (0.5%)	909 (100%)

The table below indicates that 24.3% of assessed children less than 2 years of age were malnourished, including 5.3% with severe malnutrition, while 13% of the children age 24-59 months were malnourished with 2% severe malnutrition. This could be related to poor feeding practices to children under two years of age.

Characteristics	≥ -2 Z-Score	-3 Z-Score & < -2 Z-Score	< -3 Z-Score	Oedema	Total
6-23 months	259 (75.7%)	65 (19%)	17 (5%)	1 (0.3%)	342 (38%)
24-59 months	494 (87%)	61 (11%)	8 (1%)	4 (1%)	567 (62%)
Total	753 (82.8%)	126 (13.9%)	25 (2.8%)	5 (0.5%)	909 (100%)

The table below indicates that 64% of the malnourished children were female and 36% male. As in the other surveys conducted to date, there is evidence that more care is provided to boys than to girls.

Characteristics	Male	Female	Total	%
≥ -2 Z-Score	399 (53%)	354 (47%)	753	82.8
$-3z$ -Score & $< -2z$ Score	44 (35%)	82 (65%)	126	18.3
< -3 Z-Score	9 (36%)	16 (64%)	25	3
Oedema	3 (60%)	2 (40%)	5	1
Total	455 (50%)	454 (50%)	909	100

Comparison between UNICEF nutrition surveys in Baidoa

Indicator	Baidoa Town	Baidoa District	Comments
Date of Survey	August 1999	July 2000	One survey per month planned for 2000
Estimated population	60,000	214,210	Rough estimates, prone to rapid fluctuations depending on security and season. Baidoa District population estimate is based on the 1999 NID data.
Number of children screened	903	909	Aged 6-59 months (height 65-110cm). In July 2000 survey 10 clusters were identified in Baidoa town and 20 in rural villages.
% Severely malnourished (plus oedema)	3.5%	3%	Severe malnutrition has reduced by 0.5%, reflecting perhaps improved access to main markets, the effect of long term humanitarian assistance, increased coping mechanisms and improved security in Baidoa District.
Global Malnutrition rates	21.6%	17%	4.6% less than August 1999. Reasons as above.
% with diarrhoeal episode in last 2 weeks	30.4%	13%	Higher figure in 1999 may reflect poor quality water and lack of alternative sources. Since that time UNICEF has rehabilitated Baidoa town's main water source, eight boreholes, ten hand dug wells, as well as trained more than 130 well operators, health workers and teachers. UNICEF provided chlorine for well and household chlorination and constructed nine sets of school latrines and hand washing facilities. Heavy rains in the Gu season also improved water quality.
% with ARI in last 2 weeks	56%	17%	
% who received measles vaccination (last 6 months & total)	7% & 56%	27.6% & 42.4%	Very low coverage in Baidoa district as a whole, although results vary between different groups (Agro-pastoral with 32% and urban with 63%). This resulted from Measles campaigns undertaken in Baidoa town.
% who received Vitamin A supplements in last 6 months	56%	37.3%	Very low coverage in Baidoa district. However, the result varies for the different groups (Agro-pastoral with 28% and 56% in urban). This has largely resulted from the Measles campaigns undertaken in Baidoa town.

7. CONCLUSION

The result of this nutrition survey undertaken in Baidoa District is that 17% out of 909 assessed children were moderately or severely malnourished with Oedema.

A total of 27.6% of assessed children were vaccinated against measles in the past 6 months, 14.8% were vaccinated against measles before 6 months and 57.6% were not vaccinated against measles. However, the result varies for the different groups, resulting from campaigns undertaken in Baidoa town. To improve this coverage level there is a need for improved static immunisation and accelerated EPI campaigns.

The result of vitamin A supplementation indicates that 37.3% of the children were provided with Vitamin A during the past six months. However, the result varies for the different groups (Agro-pastoral with 28% and 56% in urban). Plans for three rounds of the Polio NID between September and November 2000 should remedy this situation.

Diarrhoea and ARI continue to be two of the main contributory factors to the existence of malnutrition in Baidoa District, with 13% of children suffering from diarrhoea and 17% ARI in the two weeks prior to the survey. However, the numbers of children suffering from diarrhoeal disease or ARI have both fallen significantly during the past year.

The survey results also indicate that 11% of the 582 households visited were female headed, 3% were displaced from other parts of Baidoa district, 18% were returnees and 79% were original residents.

8. RECOMMENDATIONS

To reduce the infant and maternal morbidity and mortality caused by malnutrition and diseases, it is recommended that UNICEF and other humanitarian agencies focus on the following:

- 4 Support WFP in initiating a programme of general food distribution to the mothers of malnourished children who are registered in the MCH centres.
- 4 Continuation of the supplementary food distribution through IMC, DMO and SRCS and expansion of targeted nutritional supplements (UNIMIX) to malnourished children through organised teams in villages that cannot be covered from the MCH centre.
- 4 Continuation of immunisation services in the MCH centre and mobile teams managed by IMC, DMO and SRCS and undertake acceleration campaigns in Baidoa rural villages.
- 4 Integrate Vitamin A supplementation and in particular concentrate on providing Vitamin A to measles affected and dehydrated children and those suffering from nutritional anaemia.
- 4 Increase iron supplementation programme to improve disease resistance. Improve the system of testing pre-pregnancy nutritional status; provide supplementation during pregnancy and lactation to lead to higher birth-weight and better-nourished children through production of breast milk.
- 4 Undertake follow up on the sustainability of water projects in Baidoa District to further

reduce diarrhoeal diseases through improved household and public water sources.

- 4 Continue support to effective chlorination in Baidoa District and increase community awareness on control, prevention and home management of diarrhoeal diseases, focusing on rural villages.