

*NUTRITION SURVEY REPORT
BELEDWEYNE DISTRICT
HIRAAN REGION
SOMALIA*



*UNICEF SOUTH/CENTRAL ZONE OF
SOMALIA*

BAIDOA OFFICE

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1. INTRODUCTION

This nutrition survey is the seventh in a series of surveys that UNICEF has conducted in Central and Southern Somalia since September 1999 and the third within the framework of the joint UNICEF/FSAU survey agreement. UNICEF planned the survey, conducted the fieldwork, trained enumerators, monitored survey activities, and carried out data analysis and interpretation. UNICEF is grateful to Somalia Red Crescent Society who facilitated the work in Beledweyne.

1.2. SURVEY JUSTIFICATION

UNICEF has supported a supplementary feeding programme in Beledweyne town during the past three years through International Medical Corps (IMC) yet there continues to be evidence of increasing malnutrition rate amongst the population in Beledweyne District although the level of malnutrition is not well documented. There have been alarming reports of food insecurity and displacement mainly in the pastoral and agro-pastoral areas resulting in a decision to conduct a nutrition survey in Beledweyne District, including the displaced population and residents.

1.3 SURVEY OBJECTIVES

- To determine the level of malnutrition and Oedema in Beledweyne District by screening the Weight for Height measurement of children between 6– 59 months or 65-110cm.
- To measure the determinant factors causing/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 Beledweyne District and monitor performance in the past 6 months.
- To measure the extent of household movements during the changes in Beledweyne 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 to children from fathers.
- To make comparison between families living in Beledweyne town, those living adjacent to the river and other who are mainly pastoralists.

2. BACKGROUND

2.1. GENERAL

With an estimated population of 120,000 people, Beledweyne District is the main district of Hiiran region. It is located along the Shabelle River, 315km Northeast of Mogadishu, with

Bakool region to the West, Mudug to the North, Middle Shabelle to the South and Ethiopia to the Northeast.

Political environment: Beledweyne district experienced unrest with inter-clan fighting exacerbated by the occupation of SNA in mid 1994 until the beginning of 1995. The 1997 floods hit Hiiraan region, and Beledweyne town in particular, very hard, resulting in a collapse of the fledgling economic infrastructure and destruction of the productive capacity in Beledweyne district.

Furthermore, two years of consecutive drought and lack of sufficient rains deteriorated the already fragile situation in the district. However, recently there have been signs of improvement in the security situation in spite of lack of recognised local administration.

Recent history of humanitarian assistance: Since 1992 UNICEF has supported IMC in the delivery of health services in Beledweyne District, as well as providing UNIMIX and BP5 for a supplementary feeding programme integrated in the MCH centre. UNICEF also supports 44 HPs in the district, as well as static and outreach EPI activities.

In March and April 2000, ICRC provided 225 MT of maize, 75 MT of cow-peas and 38 MT of vegetable oil to 2,500 families affected by inter-clan fighting in south of Beledweyne district. SRCS supports 11 OPDs in Hiiraan region of which 2 OPDs are in Beledweyne district.

In April 2000 CARE delivered 450 MT of food-for-work through seven local NGOs in Beledweyne district.

2.2 FOOD SECURITY CONTEXT

Around 40% of the population of Beledweyne District are urban dwellers, 35% are pastoral and agro-pastoral and 25% live along the river. Agro-pastoralists and pastoralists are considered the most vulnerable populations at the current time, primarily due to the poor condition of livestock, particularly cattle, as well as water shortage and failure of the Deyr harvest in rain fed areas. The riverine and urban population is less affected.

Rainfall: No rainfall was received during the survey, which is normal during the *Jillal* period. High temperatures and low relative humidity was observed. Dark clouds and circling dusty winds, which are the early sign of rainfall, were seen in Beledweyne town at the beginning of April. There were some inadequate rains in rural villages at the end of the survey.

Cereal stock: Rain-fed farmers have no stock at all as a result of rain-fed crop failure. 50% of the irrigated farmers have sufficient cereal stock to the forthcoming harvest while other 50% have depleted their production for household consumption and repayment of debt.

Cereal prices: Cereal prices were low because of the irrigated Deyr harvest, continuous maize supply from Jowhar and food for work from CARE that improved the market price. The prices of imported commodities are going up and down in relation with US dollar.

Coping mechanism: Major coping strategies that poor groups resorted to include limited agricultural employment, mainly land preparation, unskilled labour, such as porters, construction activities, sale of livestock and involuntary self-employment like collection of bush products.

Extracts from the regular FSAU Monthly Highlights, January – March 2000	
January	No rainfall was received. Pasture and grazing conditions were lacking in agro-pastoral areas and are poor in pastoral areas. The price and availability of water points were below normal in remote areas. Livestock condition, milk and meat production was below normal. The harvesting of early crops has finished. The harvesting of late planted crops was occurring but insects has reduced the yield and production expected. Security situation deteriorated
February	No rainfall was received. Pasture and grazing conditions were slightly below normal. Water availability was below normal. Irrigated households had sufficient cereal stock varying from one month to the next harvest. Rain-fed households were in a deficit of cereal stocks. Mostly affected were the eastern areas. Agricultural employment was not available. Self-employment was not effective. Cereal prices were low. Security situation has not been reliable.
March	No rainfall was received which is normal during Jillaal season. Chronic water shortage was reported in villages bordered with Galgaduud region and Ethiopia. Pasture and grazing conditions were well below normal in both pastoral and agro-pastoral areas. Livestock condition, milk and meat production was poor due to the Jillaal period. Few active farmers started land tillage but most of farmers were reluctant for the land preparation. Few irrigated households had sufficient cereal stock while others do not and rely on market purchase though employment opportunities increased compared to previous month.

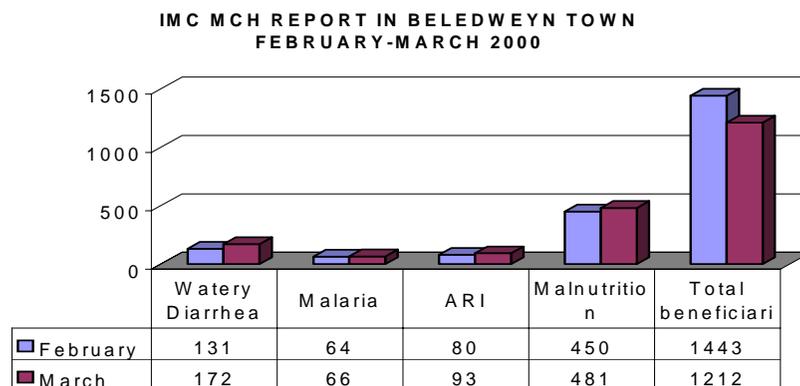
2.3 EXTERNAL ASSISTANCE RELATED TO FOOD SECURITY

General food distribution: ICRC rations amounting to 45 days to 2,500 families, including 225 MT of maize, 75 MT of cow-peas and 38 MT of vegetable oil. CARE International has recently delivered 455 MT of food-for-work through seven Local NGOs in Beledweyne district.

2.4 HEALTH CONTEXT

UNICEF supports one MCH with static EPI in Beledweyne and outreach EPI activities undertaken by IMC to boost the level of EPI coverage, 44 HPs and 75 TBA in Beledweyne district including rural villages.

The graph below indicates that in January, out of 1,443 children seen in IMC Beledweyne MCH, 9% suffered from diarrhoea, 4% suffered from Malaria, 5% from ARI and 31% were malnourished.



In February out of 1,212 under five children seen in the MCH, 14% suffered from Watery

Diarrhoea, 5% from Malaria, 8% from ARI and 40% suffered from malnutrition. The trend of morbidity in IMC MCH indicates an increase in the incidence of diseases that contribute to malnutrition by 5, 1, and 3 percent respectively. The percentage of children suffering from malnutrition also increased, from 31 to 40 percent.

2.5 WATER AND ENVIRONMENTAL SANITATION

Water levels in wells throughout the district went down and as a result the recharge time increased. Many wells in Beledweyne town and rural areas dried up and it became more difficult to find sufficient supplies of well water. Boreholes in Buqkoosaar and Farlibax villages were being fully utilised by livestock during the daytime, so that the lucrative business water tanking could only be undertaken at night. The level of the Shabelle river continued to decrease dramatically and is now of very poor quality. It is even stagnant in some places. ADRA has plans to rehabilitate boreholes in Bergadiid in Beledweyne district and Omad and Qodqod boreholes in Mataban district in Hiiraan region. ICRC is overseeing the repair of Tedan borehole in Mataban. Sanitary conditions in Beledweyne town remain very poor.

3. METHODOLOGY

Cluster sampling methodology was used to select 30 clusters randomly from four sectors in Beledweyne town and rural villages in Beledweyne districts. A total of 17 clusters were from Beledweyne town and 13 clusters were from rural villages in Beledweyne district.

A total of 903 children between the heights of 65 – 110cm were screened during the survey.

3.1 STUDY POPULATION AND SURVEY DESIGN

Beledweyne is a very lively and heavily populated town around 120,000 people, compared to 150,000 pre-war. It is a key trading and transport link between Mogadishu and Bossaso, and onwards to Baidoa and Southern Somalia. An accurate census could not be undertaken prior to the survey due to the time limit and lack of resources. Most of the population currently residing in Beledweyne is resident.

3.2 DATA COLLECTION

The nutrition survey was conducted between 11 and 19 April 2000. A total of 903 children were interviewed and screened for weight for height. Their caretakers 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. The UNICEF SCZ Monitoring and Evaluation Officer conducted two days training for enumerators while the survey fieldwork was co-ordinated by two newly recruited programme survey consultants who participated in previous nutrition surveys. The SCZ M&E Officer made data analysis. Interviewers were selected based on their experience with previous nutrition surveys and recent multi-indicator cluster surveys in Hiiraan region.

4. SURVEY RESULTS

The table attached shows the Beledweyne town and rural villages in Beledweyne District, the estimated populations and total clusters identified in Beledweyne town based on the population estimate used in 1999 NID campaign.

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

Characteristics	Urban	Riverine	Agro-pastoral	Total	%
Female headed households	35	3	15	53	9
Male headed households	280	150	80	510	91
Resident households	309	149	88	546	97
Displaced	6	4	7	17	3
Total households	315	153	95	563	100
Global malnutrition	85	35	32	152	17
Moderate malnutrition	67	30	27	124	14
Severe malnutrition with Oedema	18	5	5	28	3
Assessed children with ARI in past two weeks	117	27	45	189	21
Assessed children with diarrhoea in past two weeks	123	39	38	200	22
Vitamin A supplementation in past 6 months	386	198	125	709	79
Measles immunisation coverage	323	203	98	624	69
Measles immunisation in past 6 months	122	83	36	242	27

The table below indicates that 26.5% of children measured were aged between 6 – 23 months while 73.5% were aged between 24 – 59 months. Some 56% were from urban areas, 27% from riverine areas and 17% from pastoral and agro-pastoral areas.

Age group	Urban	%	Riverine	%	Agro-pastoral	%	Total	%
6 – 23 months	142	59	57	24	40	17	239	26.5
24– 59 months	370	56	183	28	111	17	664	75.5

Total	512	56	240	27	151	17	903	100
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The table below indicates that 2% of the children assessed were severely malnourished, 14% were moderately malnourished and 1% were with Oedema; 83.5% were not malnourished. The global malnutrition varies amongst the different groups in Beledweyne district. Pastoral and agro-pastoral are the worst with 21% including 5% severe malnutrition followed by the urban with 17% including 4% severe malnutrition and then riverine with 15% including 2% severely malnourished children.

Characteristics	≥ -2 Z-Score	-3 Z-Score & < -2 Z-Score	< -3 Z-Score	Oedema	Total
Urban	427 (83%)	67 (13%)	13 (3)	5 (1)	512
Riverine	205 (85%)	30 (13%)	4 (2%)	1 (0)	240
Agro-pastoral	119 (79%)	27 (18%)	4 (2)	1 (1%)	151
Total	751 (83%)	124(14%)	21(2%)	7(1%)	903 (100%)

The table below indicates that 20% of assessed children less than 2 years of age were malnourished including 6% with severe malnutrition while 16% of the children age 24-59 months were malnourished with 2% severe malnutrition. This may be related to poor feeding practices for children under two years of age.

Characteristics	≥ -2 Z-Score	-3 Z-Score & < -2 Z-Score	< -3 Z-Score	Oedema	Total
6-23 months	191 (80%)	33 (14%)	11 (4%)	4 (2%)	239 (26.5%)
24-59 months	560 (84%)	91 (14%)	10 (1.6%)	3 (0.4%)	664 (73.5%)
Total	751(83.2%)	124(13.7%)	21(2.3%)	7(0.8%)	903 (100%)

The table below indicates that 53% of the malnourished children were female and 47% 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	397	354	751	83.2
-3 Z-Score & < -2 Z-Score	55	69	124	13.7
< -3 Z-Score	11	10	21	2.3
Oedema	5	2	7	0.8
Total	468	435	903	100

5. CONCLUSION

The results of this nutrition survey undertaken in Beledweyne District depict that 17% out of 903 assessed children were moderately or severely malnourished with Oedema. The result of this survey is 4% and 13% less than the level of malnutrition found during the Nutrition Surveys conducted in Rabdure and Wajid towns in Bakol region by UNICEF in February and March

2000.

The result of measles immunisation indicated that 27% of assessed children were vaccinated against measles in the past 6 months, 42% were vaccinated against measles before 6 months and 31% were not vaccinated against measles. The results indicate the coverage in different groups: Riverine, 85%; agro-pastoral, 65%; and urban, 63%. The results of the immunisation indicate good EPI coverage in Beledweyne districts. However, to improve this coverage level there is need for continuation of static immunisation as well as accelerated EPI campaigns with focus in Beledweyne town.

The result of vitamin A supplementation indicates that 79% of the children were provided with Vitamin A during the past six months. This was largely the result of the second round of the NID campaign conducted in Beledweyn district at the end of November 1999. The coverage in the different groups indicated: Riverine with 83%, Agro-pastoral with 83% and 75% in Urban. There is evidence that there is a need to increase the Vitamin A supplementation in Beledweyne town and maintain this level in riverine and agro-pastoral areas in Beledweyne district.

Diarrhoea and ARI continue to be two of the main contributory factors to the existence of malnutrition in Beledweyne District, with 22% of children suffering from diarrhoea and 20% ARI in the two weeks prior to the survey. The survey results also indicate that 9% of the 546 households visited were female headed, 3% were displaced from other parts of Beledweyne district and 97% were original residents.

6. 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 Continuation of the current supplementary food distribution through IMC and expansion of targeted nutritional supplements (UNIMIX) to malnourished children through organised teams in villages that cannot be covered from the MCH centre with emphasis on drought affected pastoral and agro-pastoral areas.
- 4 Continuation of immunisation services in the MCH centre and mobile teams managed by IMC and undertake acceleration campaigns in Beledweyne town.
- 4 Maintain the current level of Vitamin A coverage and in particular concentrate on providing Vitamin A to measles affected and dehydrated children and those suffering from nutritional anaemia focusing in Beledweyne town and integrate in the acceleration campaigns.
- 4 Improve the health services delivered in the MCH centre through timely provision of supplies and routine EPI service deliveries.
- 4 Increase iron supplementation programme to improve disease resistance.
- 4 Improve 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 Initiate water projects in Beledweyne District focusing on pastoral villages to decrease internal displacement and to reduce diarrhoeal diseases through improved household and public water sources by initiating effective chlorination in Beledweyne District and increasing community awareness on control, prevention and home management of diarrhoeal diseases focusing on rural villages.