DEMOGRAPHY, NUTRITION, MORTALITY, WATER & SANITATION
ASSESSMENT OF MERCA - QORIOLEY AREAS

April 18 - April 28, 1992

Final Report

Paris, May 25, 1992

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SUMMARY OF RESULTS
Global for the 4 targeted areas

1. Demography:
Residents: 73,000 to 82,000
Displaced in the towns: 23,000 to 26,000
Displaced in the camps/warehouses/buildings: 7,000 to 8,000
Total population: 103,000 to 116,000

2. Nutrition: (6-59 months)
Residents: (n=487)
* crude malnutrition rate: 67.8% IC 95% 63.7 - 71.9
* severe malnutrition rate: 42.7% 38.3 - 47.1
* moderate malnutrition rate: 25.1% 21.3 - 28.9

Displaced in the towns: (n=267)
* crude malnutrition rate: 76.8% 71.7 - 81.9
* severe malnutrition rate: 47.2% 41.5 - 53.5
* moderate malnutrition rate: 29.6% 24.1 - 35.1

Displaced in the camps/warehouses/buildings: (n=512)
* crude malnutrition rate: 89.9% 87.3 - 92.5
* severe malnutrition rate: 75.6% 71.9 - 79.3
* moderate malnutrition rate: 14.3% 11.3 - 17.3

Total population: (n=1266)
* crude malnutrition rate: 78.6% 76.3 - 80.9
* severe malnutrition rate: 57.0% 54.3 - 59.7
* moderate malnutrition rate: 21.6% 19.3 - 23.9

3. Crude mortality rate per thousand per year:
Residents (n=1725): 57 46 - 68
Displaced in the towns (n=734): 67 55 - 79
Displaced in camps/warehouses/buildings (n=1710): 165 147 - 183
Total population (n=4169): 106 91 - 121

4. Water consumption per person per day:
Residents: 11.6 liters
Displaced in the towns: 9.9 liters
Displaced in the camps/warehouses/buildings: 4.5 liters
Total population: 8.3 liters

5. Food:
Residents: "Garass": 20% Nothing: 9%
Displaced in the towns: "Garass": 19% Nothing: 7%
Displaced in the camps: "Garass": 47% Nothing: 22%
Total population: "Garass": 31% Nothing: 14%
DEMOGRAPHY, NUTRITION, MORTALITY AND WATER & SANITATION
ASSESSMENT OF MERCA - QORIOLEY AREAS
April 18 - April 28 1992

1. INTRODUCTION:

Since the Somalian civil war started in January 1991 many families have left the areas of conflict. It is thought that several hundred thousand displaced people now live around Mogadishu in drastic conditions. About one hundred fifty (150) kilometers South of Mogadishu, in the districts of Merca and Qorioley, many people have sought refuge in four major sites: Merca, Golweyn, Bulo Marer and Qorioley.

Médecins Sans Frontières (MSF), who has been attending the wounded for 18 months in the surgical wards of the Medina hospital in Mogadishu, now plans to extend its assistance to displaced persons. In order to get a picture of the situation to enable correct targeting, a nutrition, mortality, demography and water & sanitation assessment was organized in the 4 above mentioned locations, from April 18 to April 28, 1992.

2. OBJECTIVES:

The overall goal of the survey was to provide information that would be needed to design and plan future MSF assistance in the Merca-Qorioley areas.

To accomplish this, a survey was conducted in 2 large villages (Bulo Marer and Golweyn) and 2 small towns (Merca and Qorioley). The specific survey objectives were:
1. To estimate the number of displaced persons and residents;
2. To assess the nutritional status of children under five;
3. To assess the mortality rate of the previous 12 months;
4. To assess the water supply and sanitation.

3. METHODOLOGY:

A previous two day trip, with the MSF coordinator in Mogadishu, was made in order to evaluate the feasibility of such a survey. Meetings with the elders and local committees were arranged at each site. An explanation of the objectives of the assessment was given.

Two teams, composed of two Somali public health nurses and two MSF personnel, were chosen to conduct the survey. A local calendar and questionnaire were developed in collaboration with one of the nurses. Translation in the Somali language and photocopies of about 700 questionnaires were done in Mogadishu with the help of UNICEF. To ensure data collection reliability, a one day training on the survey methods was held for the Somali P.H. nurses before departure to the field.
The assessment was designed as a household survey to be conducted in both displaced and resident families. Emphasis was placed on the displaced camps and settlements.

A systematic random sampling method was used to determine the study households: In the displaced camps and settlements, a complete count of families was conducted. In the towns, every section was surveyed, and the sampling method attempted to be proportional to the size of the estimated population. In town, when more than one family was living in the same compound, only one was selected at random.

This resulted in a sample which included 1 out of every 4 or 5 families in the displaced camps and settlements and 1 out of every 10 families in the villages and towns.

This epidemiological investigation was composed of four distinct surveys:

1) For the nutritionnal survey, children between the age of 6 months and five years (less than 115 cm in height) were selected. They were screened using the left middle upper arm circumference (MUAC). In towns and camps, not only children from the selected family were screened but also those living in the same compound, tent or room.

For the demographic estimate, data were cross checked with information from different sources, the survey itself, elders and camp representatives data and the 1989 census.

2) The mortality assessment was conducted on each selected family, using a one year recall period: the end of Ramadan 1991 to the survey's date corresponds approximately to 12 months. Questions were asked about the cause and the symptoms before death.

3) During the survey, usage of the water consumption per family was conducted, as well as the watersource and whether the water was free or not.

The EPI-INFO (CDC, Atlanta) statistical program was used for data entry and analysis.

4) The water and sanitation survey was conducted by a MSF water and sanitation engineer. He checked all the wells, hand pumps and boreholes in the area and contacted personnel who was formerly involved in the water supply department in order to get an overall picture of the water system of the region.
4. RESULTS:

4.1. Demography:

4.1.1. BULO MARER:

Residents: 411 houses; 3.5 families/house; 6.36 persons/family
--> Estimate = 10,173 to 11,500 persons.

Displaced scattered in the town: 36.1 % (n = 61)
--> Estimate = 3672 to 4000 persons.

Displaced in the camp: 47 tents; 4 families/tent; 6.4 persons per family
+ 50 tents; 3 families per tent; 6.4 persons per family
--> Estimate = 2163 to 2500 persons.

Total Bulo Marer: 16,008 to 18,000 persons.

4.1.2. GOLWEYN:

Residents: 900 houses; 2.5 families per house; 5.83 persons per family
--> Estimate = 13,117 to 14,450 persons.

Displaced scattered in the town: 27.1 % (n=103)
--> Estimate = 3541 to 3895

Displaced in the camp: 50 tents = 227 families; + 133 families in huts = 354 families; 5.67 persons/family
--> Estimate = 2007 to 2208

Total Golweyn: 18,665 to 20,530 persons.

4.1.3. QORIOLEY:

Residents: 25,000 to 28,000 persons

Displaced scattered in the town: 31.8 % (n=107)
--> Estimate = 8000 to 9000

Displaced in the warehouses: 168 families; 4.95 persons per family
Displaced in the hospital and the bank: 36 families; 7.44 persons per family
--> Estimate = 1100 to 1200 persons

Total Qorioley: 34,100 to 38,000 persons.

4.1.4. MERCA:

Residents: 25,000 to 28,000 persons

Displaced scattered in the town: 31.7 % (n=126)
--> Estimate = 8000 to 9000

Displaced gathered in the buildings: 300 to 400 families; 5.27 pers/family
--- Estimate: 1600 to 2100

Total Marca: 34,600 to 39,100 persons.

TOTAL FOR THE 4 LOCATIONS:

RESIDENTS: 73,000 to 82,000
DISPLACED SCATTERED IN THE TOWNS: 23,000 to 26,000
DISPLACED GATHERED IN THE WAREHOUSES/HOSPITAL: 7,000 to 8,000

TOTAL POPULATION: 103,000 to 116,000

4.2. Displaced population characteristics:

4.2.1. Origin: Out of 417 displaced families surveyed, their origin, regardless their actual towns or camps settlements, were:
* Jamame: 23.0% (96)
* Jilib: 20.9% (87)
* Kismayo: 17.0% (71)
* Mogadishu: 17.0% (71)
* Baidoba: 13.2% (55)
* Brava: 7.4% (31)
* Others: 1.4% (6)

4.2.2. Population structure:

Total sample: (n=4169)
< 5 male= 517 < 5 female= 531 Total < 5 =1048 (25.1%)
5-14 male= 764 5-14 female= 605 Total 5-14=1369 (32.9%)
> 15 male= 861 > 15 female= 891 Total > 15=1752 (42.0%)

Residents: (n=1725)
< 5 male= 203 < 5 female= 188 Total < 5 = 391 (22.7%)
5-14 male= 306 5-14 female= 232 Total 5-14= 538 (31.2%)
> 15 male= 408 > 15 female= 388 Total > 15= 388 (46.1%)

Displaced in the towns: (n=734)
< 5 male= 96 < 5 female= 116 Total < 5 = 212 (28.9%)
5-14 male= 116 5-14 female= 87 Total 5-14= 203 (27.6%)
> 15 male= 156 > 15 female= 163 Total > 15= 319 (43.5%)

Displaced in the camps/warehouses/buildings: (n=1710)
< 5 male= 218 < 5 female= 227 Total < 5 = 445 (26.0%)
5-14 male= 342 5-14 female= 286 Total 5-14= 628 (36.7%)
> 15 male= 297 > 15 female= 340 Total > 15= 637 (37.3%)

4.2.3. Population density:

The population density is extremely high in the displaced population located in the camps/warehouses/buildings. On the average, it is 3 meter square per person.
4.3. Nutrition:

A total of 1266 children were assessed: 634 boys and 632 girls, 779 of these came from displaced families and 487 came from residents families.

Out of 1266 selected children, 57.0% were severely malnourished (less than 12.5 cm including 61 cases with oedema); 21.6% were moderately malnourished (between 12.5 and 13.5 cm). The overall malnutrition rate is 78.6%. The prevalence of oedema is 4.8% (61/1266). Out of 61 Kwashiorkor cases, 51 (84%) were amongst Displaced children and 10 (16%) amongst Residents children.

A stratification on displaced persons and residents gives the following results:

**Displaced:** (n=779), 65.9% were severely malnourished, and 19.5% moderately malnourished. The overall malnutrition rate amongst the displaced persons is 85.4%.  

**Residents:** (n=487), 42.7% were severely malnourished, and 25.1% moderately malnourished. The overall malnutrition rate amongst the residents is 67.8%.

4.4. Mortality:

The total number of households surveyed was 690. One question concerned the number of people living, on site, in the family. The 690 households correspond to 4169 persons.

497 deaths were recorded during the previous 12 months. The crude mortality rate per year is 106 per thousand (I.C. 95%, 97 - 115). Depending on agegroups the specific mortality rates, for the entire sample, are as follows: 

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Crude Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 59 months</td>
<td>168/1000 (212/1260)</td>
</tr>
<tr>
<td>5 - 14 years</td>
<td>114/1000 (177/1546)</td>
</tr>
<tr>
<td>&gt; 15 years</td>
<td>58 /1000 (108/1860)</td>
</tr>
</tbody>
</table>

157 - 179
104 - 124
51 - 65
The main causes of deaths were:

- War casualties: = 63 (12.7%)
- Diarrhoea: = 60 (12.1%)
- Acute respiratory infection (A.R.I.): = 6 (1.2%)
- Measles: = 54 (10.8%)
- Malnutrition: = 169 (34.0%)
- Others/Unknown: = 145 (29.2%)

The death sex ratio (M/F) of the total sample is 1.76.

The number of deaths per month is presented below:
Stratification according to each population group, the results are as follows:

**Residents:**

273 households randomly surveyed = 1725 persons
Number of deaths during the previous 12 months = 105I.C. 95%
Crude Mortality rate: 57 per thousand. 46 - 68

Specific Mortality rate by age groups, among Residents:

- 0 - 59 months: 115 per thousand (51/442) 100 - 130
- 5 - 14 years : 58 per thousand (33/571) 47 - 69
- > 15 years : 26 per thousand (21/817) 18 - 34

The distribution of the causes of death, among Residents was:

- War casualties: 10 (9.5%)
- Diarrhoea: 9 (8.6%)
- A.R.I.: 4 (3.8%)
- Measles: 10 (9.5%)
- Malnutrition: 12 (11.4%)
- Others/Unknown: 60 (57.1%)

The death sex ratio among Resident households is 1.74.

The number of death per month is:

![Number of deaths per month among Residents: Apr.91 - Apr.92 Merca-Qorfoley areas](image)

**Displaced scattered in the towns:**

124 households randomly visited = 734 persons
Number of deaths during the previous 12 months = 53 I.C. 95%
Crude mortality rate: 67 per thousand. 49 - 85
Specific mortality rates by age groups among Displaced in town:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rate per thousand</th>
<th>I.C. 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 59 months</td>
<td>86</td>
<td>10 - 30</td>
</tr>
<tr>
<td>5 - 14 years</td>
<td>90</td>
<td>10 - 30</td>
</tr>
<tr>
<td>&gt; 15 years</td>
<td>39</td>
<td>5 - 21</td>
</tr>
</tbody>
</table>

The distribution of the causes of death was:
- war casualties: 8 (15.1%)
- Diarrhoea: 12 (22.6%)
- Measles: 2 (3.8%)
- Malnutrition: 16 (30.2%)
- Others/Unknown: 15 (28.3%)

The death sex ratio, among Displaced in the towns, is 2:1.

The number of deaths per month is:

![Death per Month Graph]

Displaced in the camps/warehouses/buildings:
293 households were surveyed = 1710 persons
Number of deaths during the previous 12 months = 339
Global Mortality rate: 165 per thousand. (I.C. 95% = 147 - 183)

Specific mortality rates by age groups among Displaced in the camps/warehouses/buildings:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rate per thousand</th>
<th>I.C. 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 59 months</td>
<td>241</td>
<td>125 - 157</td>
</tr>
<tr>
<td>5 - 14 years</td>
<td>167</td>
<td>110 - 142</td>
</tr>
<tr>
<td>&gt; 15 years</td>
<td>102</td>
<td>60 - 84</td>
</tr>
</tbody>
</table>
The distribution of the causes of death, among Displaced in the camps/warehouses/buildings was:

- War casualties: 45 (13.3%)
- Diarrhoea: 39 (11.5%)
- A.R.I.: 2 (0.6%)
- Measles: 42 (12.4%)
- Malnutrition: 141 (41.6%)
- Others/Unknown: 70 (20.6%)

Causes of deaths distribution (%) among displaced in the camps
Merca-Qorioley, Apr. 91 - Apr. 92

The death sex ratio, among Displaced in the camps is 1.74.

The number of deaths per month is:

Number of deaths per month among Displaced in camps, Apr.91-Apr.92
Merca-Qorioley areas

Source: MSF Survey
Note: April 92 incomplete data
The relative risk of a death in the family is 3.2 times greater for a displaced family living in the camps versus a resident family. It is 1.2 times greater for a displaced family living in town versus a resident family. It is 2.7 times greater for a displaced family living in camps versus a displaced family living in town.

4.5. Food:

Food consumption the day before the survey was put into 11 categories. The "garass" is a wild fruit that displaced people find in the bush. One week is needed to collect a bag of 30 kg. Two to three hours are needed for preparation and cooking. The nutritional value is unknown. Bananas and mangoes are green and small in size. The below mentioned daily rations are extremely small portions.

4.4.1. Total sample: (n=690 families)

Garass: 31.3%
Nothing: 14.2%
Mango/Banana: 9.6%
Maize: 9.4%
Meat only: 7.5%
Mango/Banana + meat: 7.1%
Maize + meat: 6.5%
Rice + meat: 6.4%
Garass + meat: 4.6%
Rice only: 2.0%
Mango/Banana + garass: 1.3%

4.4.2. Residents: (n=273 families)

Garass: 20.1%
Mango/Banana + meat: 14.3%
Mango/Banana: 13.2%
Maize + meat: 11.4%
Rice + meat: 11%
Nothing: 9.2%
Maize: 7.0%
Meat only: 6.2%
Garass + meat: 4.8%
Mango/Banana + Garass: 1.8%
Rice only: 1.1%

4.4.3. Displaced scattered in the towns: (n=124 families)

Garass: 19.4%
Mango/Banana: 12.1%
Maize + meat: 11.3%
Garass + meat: 10.5%
Rice + meat: 10.5%
Meat only: 8.1%
Nothing: 7.3%
Mango/Banana + meat: 7.3%
Rice only: 5.5%
Maize: 4.8%
Mango/Banana + Garass: 2.4%

4.4.4. Displaced in the camps/warehouses/buildings:
(n=293)
Garass: 46.8%
Nothing: 21.8%
Maize: 13.7%
Meat only: 8.5%
Mango/Banana: 5.1%
Garass + meat: 2.0%
Rice: 1.0%
Mango/Banana + Garass: 0.3%
Mango/Banana + meat: 0.3%
Rice + meat: 0.3%

4.6. Water per person per day:
Total sample: 8.3 liters/person/day
Residents: 11.6 liters/person/day
Displaced scattered in town: 9.9 liters/person/day
Displaced in camps/warehouses/buildings: 4.5 liters/person/day

4.7. Health:
Many children are affected by skin diseases, mostly scabies. Anemia, common cold, respiratory infections and malaria are also common. Although we were told that measles cases started to occur about 6 weeks before the survey, we saw very few (less than 5) acute measles cases. Typical skin desquamation was also seen in a few children. But a measles outbreak was not noted during the survey period. The prevalence of diarrhea, the day of the survey, was 38.2%.

5. WATER RESOURCES AND SANITATION ASSESSMENT:

5.1. Large amount of water is available by way of the Shebelle river and a network of canals for irrigation. Qoriocley is located near the river; both Bulore Marer and Golweyn are situated near a canal. The watertable is high (10-20 meter deep) at the end of the dry season. It supplies sweet (fresh) water all year long, hardly polluted by salted groundwater.

5.2. Safe water is available is expensive: (100 to 200 somali shillings per 10 liters).

During 3 months (Feb.-Apr.), when the level of the river is low and the canals are dry, the main water sources are:
- shallow open wells: polluted water due to lack of protection; sometimes treated with lime.
- shallow wells in the mosques or in the towns: few are public where the water is free; most often the water has to be paid for.
- shallow protected wells: the well is closed and the water is pumped with a handpump. The quality of the water is better, with low pollution rate.
- boreholes: (80 to 150 m deep) working with a pump and generator. It belongs to businessmen. Theoretically the water is not polluted. It has to be paid for.

For 9 months, when the level of the river is high, the canals are full. Both become the main sources of free water; however it is contaminated.

5.3. Sanitation:

No sanitation exists in the camps or around warehouses or buildings used by Displaced families. Defecation fields exist all around with no limits. Garbage is not collected nor destroyed. These elements will contributr to increase spread of communicable diseases, especially during the monsoon season which started early May. Drainage is completely absent in the camps. The coming rainy season will increase the already dramatic living conditions if appropriate sanitation measures are not taken immediately.

6. DISCUSSION:

The study sample is not totally representative of the entire population of Merca-Qorioley districts. However, it does give sufficient information and precision about health, nutrition, mortality, food and water consumption.

1. Demographic estimate:

The numbers given for displaced people in the camps/warehouses/buildings are approximately 50% of those we got from the elders of camps. The method used was to count each family including those who were absent during the time of the survey, but who were living there. In fact, many displaced people look for food, firewood or jobs during the day. It seems to us, that the figures we were given included all families who have been settled for a while in each place, without considering if they were still living on site. For 15 months the displaced were moving from place to place in order to try to find the least worst living situation.

For the estimate of the residents, the systematic sampling method used does not allow to be sure that all areas in the sections have been covered. We took into account the last census of 1989 and the figures we were given by local committees and crossmatched this information with the sampling method. In some locations our figures looked consistent with the ones which we received, in others our estimation was far
below the "official number". However the numbers given above may not be as precise for the residents and displaced in town than for the displaced in the camps/warehouses/buildings.

The proportion of displaced living in town is approximately 30% in all 4 targetted areas. This figure was missing or difficult to control before the survey.

2. Nutritional status:

Although MUAC is not the ideal anthropometric method, it was considered as the most appropriate measure given the circumstances. The crude malnutrition rate of 78.6% (of which 57.0% are severely malnourished) is extremely high and alarming. It was expected that the displaced had a more dramatic rate (85.4% of which 65.9% severely malnourished) than the residents who are still in a very poor situation (67.8% of which 42.7% severe).

These rates are consistent with those found by Ariane Curdy (ICRC) during her February 1992 nutritional survey in the same area, using the QUAC Stick method.

3. Mortality:

Mortality findings are dramatic. Since the method used is known to be unprecise because of recall bias, therefore the given rates are conservative. More specifically, demographics have found the one year recall method underestimates the real mortality rates. The unbalanced sex ratio is in consideration of under-reporting.

The available data for Somalia was a crude mortality rate of 20/1000 in 1989. It gives an idea of the severity of the actual situation in Merca-Qorioley areas. The global rates, as well as specific rates, are increasing from residents (57/1000) to displaced scattered in the towns (67/1000) and more dramatically to displaced in the camps (165/1000).

The number of deaths increased dramatically from January to April 1992. 56% (279) of the total deaths (497) during April 1991 to April 1992 have occurred since January 1992. This result is further evidence that shows the increasing severity of the situation in the past 4 months. The number of deaths in April 1992 was incomplete due to the timing of the survey (Apr.18 to Apr. 28).

The number of peak deaths documented in April 91 may reflect a recall bias. It is possible that Respondent recollections of deaths may be influenced by the fact that April 1991 was the month of Ramadan. Yet it is also clear that heavy fighting occurred during this month and resulted in many war casualties. The overall death sex ratio (M/F) of 1.7 is probably due to the combination of two factors: 1) men had more war casualties than women and 2) male deaths might have been better remembered than female deaths.

Malnutrition is the leading cause of mortality in each group of population. Malnutrition is responsible for 41.6% of the total number of deaths among the displaced living in the camp.
The second cause of death, in each group, (9.5 to 13.3%), is war casualties (bullets or shells). Diarrhea and measles are the other most common causes. One must note that the A.R.I. is not represented as expected.

4. Food:

The lack of general food assistance is obvious everywhere. The main diet is "garass", the wild fruit, which is not eaten during "normal" times in Somalia. The families who ate nothing the day previous to the survey varies from 7.3 to 21.8% in residents and displaced population in the camps respectively.

5. Water per person per day:

The average water consumption per person per day is low, especially for the displaced in the camps (4.5 liters). The source of water varies in each site: river, shallow well, hand-pump well or borehole. For hand pumps and boreholes, the water has to be paid for most of the time.

6. Health:

O.P.D.s have been opened last January/February by ICRC in each of the survey areas. They are run by voluntary local staff and ICRC provides essential drugs regularly. The attendance seemed to be low except in one place. The local staff would need training and refresher courses in order to provide correct basic diagnosis and treatment. Weekly surveillance, communicable disease data are given to ICRC by the O.P.D.s local staff, but the validity is questionable. A daily mortality surveillance does not exist in any site.

7. CONCLUSIONS:

Clearly, survival assistance is needed in all areas surveyed. The overall dramatic situation of the population, especially of displaced persons, is pushing Médecins Sans Frontières to open a mission in the surveyed areas.

MSF assistance will not be efficient if the general food distribution does not start quickly in Merca-Qorioyle districts. It is understood that any specific assistance (such as supplementary feeding centers, safe water supply, preventive and curative medical care) would be symbolic as the population is still starving without any global food assistance.

The 3 tons of Unimix, provided by UNICEF and distributed by MSF during the survey, are not going to change anything given the drastic situation. It has helped some starving children and the local people who try to help the displaced, but thousands remain unfed.

Two out of order hand pump wells were repaired during the survey.
MSF is willing to provide emergency assistance to the Merca, Bulo Marer, Golweyn and Qorioley population as soon as general food is provided. In general, the objectives of the MSF mission will be to establish feeding centers, provide adequate water supply to the displaced, take in charge the basic sanitation, immunize children against measles, and provide assistance to Merca hospital.

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Special thanks to Patrick Vial, MSF coordinator in Mogadishu, for having prepared the conditions of the survey; and to Dominique Noury, MSF logistic officer, for having brought Unimix up to the field.

Thanks to Dr Mursal, medical coordinator of Save the Children (U.K.) in Somalia for his appreciated information and availability.

We also would like to thank all the MSF team and local staff for their support.
1. Intee ruux ayaa kugula nool halkaan?

<table>
<thead>
<tr>
<th></th>
<th>Lab</th>
<th>Dhedi</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 y.o.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-14 y.o.</td>
<td></td>
<td></td>
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<tr>
<td>&gt; 15 y.o.</td>
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</tbody>
</table>

2. Ma halkaan baad degenaan jirtay mise waxaad ahayd dadka soo barakacay?

3. HADAAD TAHAY KUWA SOO BARAKAY:

4. Xageed ka timid ama kasoo qaxday?

5. Goormaad ka soo tagtay halkaad degeneyd? (bilo)

6. Goormaad timid halkaan? (bilo)

7. Maxaad ka shaqeyn jirtay?
   1=beeraley 2=reer miyi 3=kuwo kale

8. Intee ruux ayaa ka dhimatsay qoyskaada laga soo bilaabo Ramadaankii hore ila iyo hadda?

9. HADDII AY DHIMASHIJO JIRTO SHEEG:

<table>
<thead>
<tr>
<th>Taariikh (B/S)</th>
<th>DA,DA</th>
<th>JENISGA</th>
<th>QOXOOTI</th>
<th>SABABTA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1=Dagaal(Xabad)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2=Shuban</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3=A.R.I.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4=Jadeeco</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5=Nafago Dari</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6=Kuwo Kale</td>
</tr>
</tbody>
</table>

10 Xaggeed ka heshan biyaha aad cabtaan?
   1=wabi 2=ceel

11 Ma i tusi kartaa weelka aad biyaha ku soo dhaansaataan?
   (muga weelka)

12 Meeqa jeer ayaad weelkan biyo ku soo dhaansaataan maalintii?

13 Biyuhu ma lacag la'aan baa mise lacag baad bixisaan?
   1= lacag la'aan 2= lacag

14 Cunto noocce ah ayaad cuntay shalay?

<table>
<thead>
<tr>
<th>1=miraha duurka ka baxa</th>
<th>2=meseuo/galley</th>
<th>3=meseuo/galley + hilib</th>
</tr>
</thead>
<tbody>
<tr>
<td>4=digir</td>
<td>5=bariis/basto</td>
<td>6=bariis/basto + hilib</td>
</tr>
<tr>
<td>7=warbo</td>
<td>8=kuwo kale</td>
<td></td>
</tr>
</tbody>
</table>

15 Nooca hoyga:

<table>
<thead>
<tr>
<th>1=guri sar ah</th>
<th>2=Bakharada A.D.C.</th>
<th>3=mundul</th>
<th>4=carish</th>
</tr>
</thead>
<tbody>
<tr>
<td>5=aqal</td>
<td>6=huts</td>
<td>7=kuwo kale</td>
<td></td>
</tr>
</tbody>
</table>
1. How many persons live here with you?

2. Age and Sex distribution:

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 y.o.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-14 y.o.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 15 y.o.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Are you a resident here or a displaced? R or D

4. Where do you came from?

5. When did you leave your original place? (in months)

6. When did you arrive here? (in months)

7. What is your profession? 1 = Farmer 2 = Nomad 3 = Others

8. How many people died in your family living with you, since Ramadan last year, up to now?

9. IF ANY:

<table>
<thead>
<tr>
<th>Date (M/Y)</th>
<th>AGE</th>
<th>SEX</th>
<th>RESIDENT/ DISPLACED</th>
<th>CAUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 = violent(war)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 = diarrhea</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 = A.R.I.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 = Measles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 = Malnutrition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 = Others</td>
</tr>
</tbody>
</table>

10. Where do you get your drinking water? 1 = river 2 = well

11. Can you show me your water container? (number of liters)

12. How many full of water of this container do you use per day?

13. Is the water free or do you have to pay for it? 1 = YES 2 = NO

14. What kind of food did you eat yesterday?

1 = wild fruits 2 = sorghum/maize 3 = sorghum/maize + meat 4 = beans
5 = rice/pasta 6 = rice/pasta + meat 7 = nothing 8 = others

15. Type of shelter:

1 = concrete house 2 = warehouse 3 = Mundul 4 = Arish
5 = Aqal 6 = Huts 7 = Others