

Assessment of nutritional status by mid upper arm circumference (MUAC) in Maslakh camp, west Afghanistan

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Survey by: Medecins Sans Frontieres -Holland (January, 24th, 2002)

Anthropometrics index:

MUAC, less than 108 mm or Oedema for Sever Acute Malnutrition (SAM); between 109 mm and < 124 mm for Moderate Acute Malnutrition (MAM) and between 125 mm- 134mm for children at risk.

Sampling method: Systematic or Interval Sampling system was used. The camp is roughly rectangular and parallels a straight road. It is estimated to contain about 160,000 people though WFP distributes enough food for about 300,000 people. The camp was divided into 30 cluster\sections by measurement and so marked out by paint. Each cluster was numbered. It was estimated that the average number of children under 5 in each section is about 1000. There is no regularity about the distribution or density of dwellings paths or roads. All sections were surveyed. 15 teams of three each (one supervisor\recorder and one MUACer) including an MSF outreach worker surveyed two sections/clusters each, beginning at the west end of each section and criss - crossing the section working east. All children 12-59 months (110 cm by measurement) in every 12th dwelling were surveyed. In each section, as predicted by the rough population estimates, this resulted in most of each section being surveyed to obtain 1869 children total.

Context and Objectives: *Maslakh* camp is a huge camp and proper survey either had never been done or failed trial of survey by other organizations. It is 4.5 km X 1.850 km. Medecins Sans Frontieres SFC and TFC statistical result shows high defaulters due to many community\cultural reasons. One of the major issues has been security related to crime, corruption, ethnic tensions. This has resulted in an ineffective food distribution system. These defaulting problems couldn't be improved through the usual techniques including IDP outreach teams etc. It has also been noted that children admitted to the TFC's tend to have been in the camp for 3 to 6 months even though MSF screening in the transit (registration) centres shows that the global malnutrition rate is less than 10%. The concern of MSF is that the nutritional status of the children in the camp is deteriorating as families stay longer. Therefore, MSF-Holland decided to do a proper MUAC survey for *Maslakh* camp.

Results: The table shows the results of each section\cluster. Though argument can be made about drawing conclusions based on the survey results in each of the camp sections, the results are at least interesting. Certainly the aggregate results are quite powerful.

In the poorer, more crowded sections the malnutrition rate among children is higher than in the "better" sections. A walk through the camp would suggest very strongly that there is social/economic stratification and this is what prompted the use of a modified systematic survey rather than a classical cluster survey.

Results of the survey ☉: 1869 children were measured\MUACed during the survey. Survey result of each cluster reveals in the table below.

Cluster No.	N	S.A.M. <108mm or Oedema	M.A.M. (109mm-124 mm)	At risk (125mm-134mm)	G.M.R
30		10.90%	24.90%	26.10%	35.80%
29		10.00%	22.80%	17.00%	32.80%
28		5.90%	20.80%	34.70%	26.70%
27		6.80%	19.70%	34.90%	26.50%
26		7.90%	23.30%	16.40%	31.20%
25		8.10%	22.70%	19.80%	30.80%
24		4.30%	26.90%	19.40%	31.20%
23		3.60%	22.70%	25.00%	26.30%
22		8.00%	17.90%	19.00%	25.90%
21		8.30%	21.60%	28.40%	29.90%
20		6.10%	22.70%	17.50%	28.80%
19		4.50%	26.60%	19.20%	31.10%
18		7.20%	23.60%	13.00%	30.80%
17		11.50%	24.20%	16.40%	35.70%
16		9.20%	25.00%	13.60%	34.20%
15		9.90%	23.60%	19.90%	33.50%
14		5.60%	13.10%	22.30%	18.70%
13		3.20%	12.70%	19.00%	15.90%
12		4.90%	18.20%	14.80%	23.10%
11		5.40%	14.30%	16.40%	19.70%
10		8.40%	22.50%	13.30%	30.90%
9		6.40%	22.90%	16.10%	29.30%
8		9.80%	21.40%	13.40%	31.20%
7		6.50%	18.20%	11.50%	24.70%
6		3.20%	12.90%	14.50%	16.10%
5		4.50%	24.90%	26.90%	29.40%
4		4.80%	17.20%	20.30%	22.00%
3		4.70%	12.70%	28.60%	17.40%
2		6.10%	7.20%	33.10%	13.30%
1		3.30%	6.40%	11.10%	9.70%
	N = 1869	199.00/n	593.60/n	601.60/n	792.60/n
		6.633333	19.78667	20.05333	26.42

Malnutrition

%

Sever Acute Malnutrition

6.6%

Moderate Acute Malnutrition

19.8%

Global Malnutrition Rate

26.4%

At risk for malnutrition

20.1%

Comments:

MSF Holland has the capacity to admit 200 children to its Therapeutic Feeding Centres (TFC). At the moment there are about 80 children admitted despite an aggressive outreach program to trace defaulters and to find new cases. Based on this survey, about 1700 children would meet the criteria for admission to a TFC.

With the new arrivals showing a global malnutrition in the less than 10% range, and residents approaching 27.0%, it is very clear that being in Maslakh camp, by itself, presents a serious risk of malnutrition and hence of disease and death.

The ability of MSF-H to achieve better results is seriously limited by cultural constraints and by security related conditions in the camp that have been well documented elsewhere.

The only way to address the problem of malnutrition in *Maslakh* Camp is through an equitable food distribution system.

Recommendations:

1. MSF-H use this information to continue its international lobby for major changes in security and food distribution in the camp.
2. MSF- H consider increasing the family ration to children in feeding centres as an economic (in its broadest context) incentive to attract children/families who need nutritional support.
3. MSF-H must work with other agencies involved in *Maslakh* Camp to improve their understanding of the underlying causes of malnutrition, sickness and death, with a view to addressing these causes.

Summary:

It is quite clear that there is a serious problem with malnutrition in *Maslakh* camp as demonstrated by this nutritional survey. These findings, when combined with the fact that the WFP distributes enough food in this camp for about 300,000 people, demonstrate that unequal access to this food is the underlying cause of the increasing malnutrition.