

# Evaluation of nutritional status in children between 6 and 59 months in the Centre of Maratane

Mariano Salazar Castellón<sup>1</sup>, Fernando Massaza<sup>2</sup>, Josué Balanca<sup>3</sup>

## Summary

**Objective.** Identify the nutritional status of children between 6 – 59 months of age using the weight-for-height and weight-for-age anthropometric indices in the Centre of Maratane.

**Methodology.** A descriptive and exploratory study was carried out during the period between November 31st and December 4th in the Centre of Maratane which include both the Refugees Camp of Maratane and adjacent Mozambican Villages, in a sample (N = 300) by conglomerates (4 neighbourhoods of the Refugee's Camp and 6 Mozambican Villages, n = 30), classified by age, weight and sex, using a cross methodology. The variable evaluated was the weight of children between 6 and 59 months through the Z score measure (Weight-for-height) and the standardized curves of weight-by-age used by the Ministry of Health of Mozambique. The data obtained were described using -2Z score cut off for W/H and absolute frequencies, accumulated frequencies and percentages for W/A. The test of Chi-Square was used as a test of independence.

**Outputs. A)** It was estimated a percentage of cases below -2Z score of 13.3% and a percentage of 86.6% up -2Z score. The percentage of cases less than -3Z score were 4.3% and between -3 and -2 Z score were 9% of cases. Below -2Z score the group of age more affected was 12 – 36 months (75%). The other groups of age were affected in the following manner: 37 – 56 months (0%) and 06 – 11 months (22.5%). **B)** In addition, in the case of the indicators of W/A indice, it was estimated an accumulated prevalence of 47.7% of the indicators of low weight (36.3%) and very low weight (11.3%) with relation to the age in the sample obtained. Other indicators in the sample are normal weight (49.7%) and excess of weight (2.7%). The group of age more affected was 12 – 36 months. The other groups of age were affected in the following manner: 12 – 36 months (55%), 37 – 56 months (32%) and 06 – 11 months (23%). The differences between the variables "Male and Female" related to the indicators of W/A indice have statistical significance (p = 0.008). The percentage differences between the variables "Male and Female" in all the indicators of W/A indice are favourable to the "Male". This difference is high in the indicator "Very low weight for age". **C)** The pattern of answers produced for the mother interviewed point out that the high concentration (85.3%) of the variable "Numbers of meals during the last 24 hrs" is inside the interval of "2-3 meals in 24 hrs". This same pattern of answers point out that the food less consumed in the last 24 hrs are fruit and vegetables (38.7%) and the more consumed food were cereals and tuber (85.7%). This same patterns of answers point out that in the last six months 58% of the kids between 36 – 59 months received the vaccine against measles (+ Vit A: 49.3%) and 49.0% received the vaccine against polio through the National Campaign of Vaccination. In the same period, 18.35% received the vaccine against measles (+ Vit A: 6.0%) and 30.0% received the vaccine against polio through the Routine Vaccination Program. In the same period, 14.7% did not receive the vaccine against measles and 10.0% did not receive the vaccine against polio. This same patterns of answers point out that during the last two weeks 40.7% of cases had diarrhea and during the last 24 hrs 65.7% of the cases were sick and 62.0% received breastfeeding.

**Conclusion.** Moderate malnutrition as well as a faltering in growth are the main features of the nutritional status of the population under study. The group of age 12 – 36 months and females in all groups of age represent the priorities to planning interventions. The immediate cause identified but probably not the only one was a diet based on the consume of cereals and tube with limited consume of fruit and vegetables (first) and meat, fish and beans (second). The main hypothetical cause of the identified problem is related to the overall social system of food production and consume and the degree of poverty of the Refugee and Mozambican populations but this study did not perform any analysis about it. In addition, the status of measles (plus Vit A) and polio vaccination should be improved as well as the promotion of breastfeeding and the measures to prevent diarrhoea.

<sup>1</sup> Health and Nutrition Coordinator, UNHCR, Mozambique.

Mail has to be addressed to "Dr. Mariano Salazar Castellón, H&N Coordinator, UNHCR, Rua da Beira # 3, CP 173, Nampula, Mozambique. Fax: 00 258 26 21 66 42. Email: marianosalazarc@yahoo.com

<sup>2</sup> Head, Nutrition Unit, MOH, Province of Nampula, Mozambique

<sup>3</sup> Head, Nutrition Unit, MOH, City of Nampula, Province of Nampula, Mozambique.

#### Recommendations

1. The geographical area constituted by the Camp of Refugees and the adjacent Mozambican Villages should be considered as an unique area for the local socioeconomic development taking into consideration the perspective of the Mozambican Government and the System of United Nations.
2. The possibility of open a Target Supplementary Feeding Programme in the Centre of Maratane should be considered taking into account the outputs of this research and other information available.
3. An active search of cases of severe malnutrition should be undertaken in the groups of age of 6 – 11 and 12 – 36 months to be immediately referred to the Nampula Central Hospital.
4. An educational nutrition programme should be organized lead to the mother of kids between 6 – 56 months.
5. The measles status of vaccination should be improved close to 100% in the target population.
6. The Movement of Health Activists that is, the refugees as well as Mozambicans, should participate actively on the different activities to be planned
7. Other studies should be undertaken to know the specific nutritious status of the refugee and Mozambican population as well as specific target group: pregnant women, breastfeeding mother, old people, chronic illnesses and HIV positive.
8. A specific study has to be undertaken to know the state of the art of the System of Nutritional Security related to both refugees and Mozambican population.
9. Appropriate measures should be taken to increase the incomes of family heads and other members of the family unit and to increase the availability of fruit and vegetables, meat, fish and beans in the local markets of reference.
10. All the recommendations should be undertaken in narrow relationship with the Ministry of Health, the National Institute which assists the Refugees and other institutions potentially related to the Mozambican Government.
11. An active programme of search of resources with donor potentials should be undertaken.

Key word Malnutrition, Refugee, , Mozambique, United Nations

#### Bibliografía

1. Use and interpretations of anthropometric indicators of nutritional status. Bulletin of the World Health Organization 64 (6), 929 – 941 (1986)
2. Assessment of nutritional status: effects of different methods to determine age on the classification of under nutrition. Bulletin of the World Health Organization, 67 (2), 143 – 150 (1989)
3. Issues in the assessment of nutritional status using anthropometry. Bulletin of the World Health Organization, 1994, 72 (2): 273 – 283.
4. Canales.F.H. Metodología de la investigación para el personal de salud. México, Editorial LIMUSA, 1986, pp: 287 (Ilus)
5. Wayne. W.D. Bioestadística/Base para el análisis de las ciencias de la salud. México, Editorial LIMUSA, 1989 (III Edición), pp: 667.
6. UNHCR. Handbook for Emergencies. Geneve, 2000, (Second Edition), pp 191, 196

## CREDITOS

<b>General Coordination and Supervision</b>	<i>Dr. Mariano Salazar Castellón</i>	Health and Nutrition Coordinator, UNHCR, Mozambique
	<i>Tec en Nutrición. Fernando Massaza</i>	Head, Nutrition Unit, MOH- Province of Nampula
	<i>Tec en Nutrición. Josué Balanca</i>	Head, Nutrition Unit, MOH- City of Nampula
<b>Coordinators of field teamwork</b>	<i>Enf SMI. Lucia Bernardo</i>	Anchilos's Health Center
	<i>Tec en Nutrición. Francisco Mare</i>	Head, Nutrition Unit, MOH- Ribau Health District
	<i>Enf SMI. Afiana Abudu</i>	Head, Namaita's Health Center
	<i>Enf SMI. Ana Paula Alberto Musalame</i>	Anchilos's Health Center
	<i>Tec en Nutrición. Ramalío Cesar</i>	Head, Nutrition Unit, MOH- Angoche Health District
	<i>Tec en Nutrición. García Sevene</i>	Head, Nutrition Unit, MOH- Nacala Porto Health District
	<i>Enf SMI. Albertina Ernesta</i>	Head, SMI Unit, MOH - City of Nampula Health District
	<i>Ag. De MP. Sergio Guamir</i>	Head, Preventive Medicine Unit, MOH- Anchilo Health District
	<i>Ag. De MP. Antonio Augusto Aquimo</i>	Head, Preventive Medicine Unit, MOH- Nampula Health District
	<i>Part. Elem. Maria Chale Osufo Ali</i>	MOH - Rapale Health District
<b>Members of the field teamwork</b>	<i>Health Communitarian Activist, Refugee Camp of Maratane</i>	