

# **Research Paper**

**Medical Science** 

# NUTRITIONAL STATUS OF CHILDREN AGED 6 T0 59 MONTHS IN AN INTERNALLY DISPLACED PERSONS (IDP) CAMP AT ELDORET, KENYA.

# A.V.M. Kwena

PhD, Department of Medical Biochemistry, School of Medicine, College of Health Sciences, Moi University, P.O

ABSTRACT Objectives: The broad objective of the study was to determine the nutritional status of children staying in IDP camp.

Materials & Methods: A Descriptive study was carried out between May and July 2008. Structured questionnaires were administered to parents or guardians with children aged 5-59 months. The sample size depended on the number of cases seen within the period of study. The parameters considered included Age (in months), Weight (Kgs) and the mid upper arm circumference (cms). The nutritional status of the children was determined using the WHO recommended Z- score values as well as the Kenya Government Ministry of health recommended charts based on anthropometric measurements. Inclusion criteria involved children aged 5 to 59 months in the study area.

Analysis of nutritional data was carried out using Epi-info 2000 computer program to determine the Z- score values from anthropometric data.

Results & Findings:

Demography: a total of 20 children from IDP camp were sampled. Of these 12(60%) were males. The age ranged from 5 to 46 months

Anthropometry: one (5%) had normal nutritional status (>1WAZ), 1(5%) had mild malnutrition (<-1WAZ), 3(15%) had moderate malnutrition (<-2WAZ), while 14(70%) had severe malnutrition (<-3WAZ).

Clinical malnutrition: Twelve(60%) of the children had Kwashiorkor, 2(10%) had marasmus. None had Marasmic /Kwashiorkor.

Conclusion: The rate of kwashiorkor and marasmus was higher than the national rate.

# **KEYWORDS : Nutrition status; Children; IDP**

## Introduction:

Malnutrition is an imbalance - a deficiency or an excess - in a person's intake of nutrients and other dietary elements needed for healthy living. Malnutrition can manifest itself as hunger (or undernutrition), deficiency in vitamins or minerals, or overfeeding. The World Health Organization (WHO, 1995, 2002) estimates that fully half of the human family, some 3 billion people, suffer from malnutrition of one kind or another. One out of five people in the developing world suffers from the worst of the variants of malnutrition - hunger. (Gardner, 2000; GoK, 2014) The problem is accelerated by a number of factors among the civil strive. It is with this in mind that the prevalence of malnutrition was determined in an a camp for the internally displaced persons (IDP) at Eldoret, Kenya from April to July, 2008. This was due to civil strive emanating from elections in Kenya from December, 2007 to February, 2008, resulting in mushrooming of various camps in different parts of the country including the one in Eldoret town in North Rift Valley region of western part of Kenya. Among the people inhabiting the camp were children aged 5 years and below staying with their parents. The camps were inhabited for the period mentioned though by June, 2008 most camps had been closed down due to the stability that had prevailed in the country. At the time of data collection, preparation and submission of this abstract, Eldoret camp was one of the few still operating though with reduced number of occupants. Since malnutrition is one of the major health problems afflicting children below 5 years of age in Western Kenya (Kwena et al, 2006, 2007 & 2014 ) it was thought necessary to do a survey and analysis of the problem during this rare period experienced in this region at the time of study.

### **Objectives:**

The broad objective of the study was to determine the nutritional status of children staying in an IDP camp in Eldoret town for the period under study.

The specific objectives were 1. Determine the nutritional status in an an IDP cam 2.Determine the prevalence of malnutrition in the same camp.

### **Materials and Methods:**

This was a descriptive study carried out in the area for the period May to July, 2008. Structured questionnaires were administered to parents or guardians of the children under study. The parameters considered included Age (in months), Weight (Kgs), height (cms) and the midupper arm circumference (cms). Qualified medical staff assessed the clinical nutritional status of the children classifying them as Marasmic , Kwashiorkor or Marasmic/ Kwashiorkor... A total of 20 children were sampled during the study. Analysis of nutritional data was carried out using Epi-info 2000 computer program to determine the Z- score values from anthropometric data (7, 8)

### **Results:**

Demography: a total of 20 children from IDP camp were sampled. Of these 12(60%) were males (Figure 1). The age ranged from 5 to 46 months

Anthropometry: one (5%) had normal nutritional status (>1WAZ), 1(5%) had mild malnutrition (<-1WAZ), 3(15%) had moderate malnutrition (<-2WAZ), while 14(70%)had severe malnutrition (<-3WAZ). (Table 1)

Figure 1. Gender: (Children studied at IDP Camp, Elzdoret)



Clinical malnutrition: Twelve(60%) of the children had Kwashiorkor, 2(10%) had Marasmus. None had Marasmic /Kwashiorkor. (Table 2)

#### Table 1. Anthropometry:

	Number of children (N)	Percentage prevalence(%)
> 1 WAZ	1	5
< -1 WAZ	1	5
< -2 WAZ	3	15
< -3 WAZ	14	70

#### Table 2, **Clinical malnutrition:**

	Number of children (N)	Percentage prevalence(%)
Kwashiorkor	12	60
Marasmus	2	10
Marasmic/ kwashiorkor	0	0

## **Discussion:**

Anthropometry showed a very high prevalence of severe (acute)malnutrition at the IDP camp at the time of study. Clinical malnutrition prevalence was also high (60 %) compared to the current national prevalence data for the area ( 30%). Given the scarcity of food at the camp and the prevailing annual drought in the area at that time of the year, this was expected. The condition was slightly alleviated by food supply from the red cross for relief purposes. the Red cross normally supplied a mixture of maize and beans to each of the registered families on a regular basis. This process continued up to the time of submission of this abstract for consideration for presentation to this conference. The sample size was small due to the sensitivity of the study at the IDP camp. It is hoped that a follow-up of the study will be carried out at the transition camps that still exist to compare the current nutritional status of the children.

#### **Conclusion:**

Though the prevalence of malnutrition was high at the IDP camp in Eldoret Kenya during the period of study, the situation has now been contained through the help of the Red Cross.

#### Acknowledgement:

The IDPs at Eldoret showground camp for cooperation during data collection. Much thanks to Salome Jeptarus, the nurse who administered the questionnaires.



1.De Vries HR, Hendrickse RG (1988) Climatic conditions and kwashiorkor in Mumias: a | retrospective analysis over a 5-year period. H R de Vries, R G Hendrickse. Ann Trop Paediatr Dec 1988 (Vol. 8, Issue 4, Pages 268-70) | 2.Gardner G., Halwell B.(2000), "Underfed and Overfed: The Global Epi-demic of | Malnutrition", World Wathc Institute Paper 150, March 2000 | 3. Government of Kenya (2014). Ministry of Health booklet on mother and child, MOH 216, | 2014. | 4. Kwena A, Baliddawa J.B., Taylor K., Mcdowell M., Mining S, (2014). Comparison of Protein | Energy Malnutrition and P. Falciparum malaria levels in AMPATH And non AMPATH COBES centres in Western Kenya. gjra –Global Journal for Research Analysis: 159–162, Volume : 3 | Issue : 2 | Feb 2014 | 5. Kwena, AM, Magambo JK, Makhisi J and Vulule JM (2006). Risk factors and Predictors for | Protein-Energy malnutrition in two age groups of children in a malaria endemic area of Western Kenya: Cross- sectional surveys: 2nd Africa Nutritional Epidemiology conference (ANEC), 2006, Accra, Ghana, 15th Aug-18th Aug, 2006, Poster no. PS113. | 6. Kwena, AM, Terlouw, DJ, Phillips-Howard PA, Terkuile FO, Nahlen B, Wakhisi, J, | Magambo, JK and Vulue JM (2007). Current status of malnutrition in a highly malaria endemic area in western Kenya. Ann Nutr Metab 2007; 51(suppl, 1); 91.Abstract. | 7. WHO (1995). Physical status: The use and interpretation of anthropometry pp 182 8. || 9. WHO/FAO (2002) Diet, nutrition, and the prevention of chronic disease. Report of the Joint | WHO/FAO expert consultation, 26 April 2002.