

*APPLIED HEALTH RESEARCH SERIES 2*

**DETERMINANTS OF ACTION AGAINST  
MALNUTRITION  
IN UNDER FIVE CHILDREN**

**KASAMA DISTRICT - NORTHERN ZAMBIA**

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**ZPC Publications**

# **LAY PERCEPTIONS, BELIEFS, AND CULTURAL PRACTICES CONTRIBUTING TO UNDER FIVES MALNUTRITION IN KASAMA DISTRICT**

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## **Abstract:**

Many studies have looked at the problem of malnutrition from the perspective of the Western biomedical and public health model. The net outcome of such studies has often been to influence policy and intervention programme design without adequate consideration to the mind set and receptivity of the targeted populations. As a result programmes have lacked sufficient involvement of the target population and malnutrition has remained at either the same high level or even worsened. On the basis of poor primary health care indicators and abnormally high levels of malnutrition (57% chronic malnutrition -ZDHS 1992) a study was undertaken in Kasama district between 1995 and 1996 with the following main objectives:

- \*To identify people's perceptions, beliefs, and cultural practices that contribute to Under fives malnutrition in the district.
- \*To contribute to a more culturally sensitive PHC approach by developing relevant interventions against Under fives malnutrition.

The assumption of the researchers was that malnutrition in Under fives is probably influenced by deep seated cultural factors beyond child feeding; given abundance of rainfall and food production activities in the area.

Mixed quantitative and qualitative methods were used to derive insights on local understanding of malnutrition in terms of causes and effects.

Anthropometric measurements of UNDER FIVE children revealed stunting (HAZZ) at 52.3%, wasting (WHZ) at 4.7% and underweight (WAZZ) at 27%. Local causes of malnutrition are discussed and contributing factors highlighted.

Cultural perceptions, beliefs and practices are based on local understanding of causes and effects presented as 10 explanatory models for Kwashiorkor and 3 explanatory models for Marasmus. Amongst the Kwashiorkor explanatory models 4 are attributed to pregnancy, 4 attributed to sex , one attributed to abortion and the last one to menstruation. As for Marasmus one model is attributed to pregnancy, one to sex and the last one is the only model directly linking malnutrition to lack of food.

Severe forms of malnutrition (kwashiorkor, marasmus) are recognised while chronic malnutrition (stunting) is not. Community stigma towards mothers of malnourished children is subtle and reinforced by health workers stigma (double stigma).

Contributing local practices, and policy and programming implications are discussed.

## **1. Introduction**

Country focussed studies indicate malnutrition to be a serious and persistent problem in Zambia (World Bank,1994)1, (Kasonde and Martin,1994)2, (Hambayi,M et al, 1995)3. One could easily attribute the problem to poverty in view of what the World Bank poverty assessment study (1) observes

... "The poverty-nutrition nexus is well established. Nutritional status is sometimes used as a proxy indicator for poverty because it is rightly

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assumed that most people are hungry and undernourished because they are poor." Despite the obvious nexus, the World Bank study observes, it is often difficult to establish a clear correlation between the two variables.

Poor primary health care indicators in Northern province compared to the rest of Zambia (DHS 1992)<sup>4</sup> attracted interest to investigate causes and how they contribute to the prevailing levels of malnutrition.

Northern Province PHC indicators (ZDHS 1992)	
Infant Mortality Rate 149/1000	57%
Malnutrition in Under fives (chronic)	
Women not receiving antenatal care during the last pregnancy (highest)	21%
Children not receiving full vaccination coverage (highest)	49%
Diarrhoea amongst children under five 2 weeks prior to the survey	28%
Households with access to safe drinking water (lowest)	10%

The country's Priority Survey II (3) has documented stunting amongst children under five years to be highest amongst rural provinces (Northern = 55.8%). Earlier studies (Cogill and Zaza, 1990) documented national prevalence at 54% stunting, 4% wasting, and 25% under-nutrition. These high levels of malnutrition appear to have been in existence for much longer than is known to the public.

In spite of poorly functioning primary health care services that the indicators also suggest, Northern Province is endowed with high levels of rainfall every year, and the potential for food and cash crops is substantial. Food production is however constrained by ecological factors such as soil acidity. Hence 'citemene' system (5) is widely practised even though it had been discouraged by government in the past.

The people of Northern Province (predominantly Bemba ethnic group) are subsistence farmers grow staple grains, groundnuts, beans and vegetables besides keeping small domestic animals such as goats, sheep and chickens. It is noteworthy that they do not rear cattle but during the 1950's millet was the universal staple (Whiteley, 1951)(24); which has later been replaced by maize. During the colonial era cassava was eaten as a staple in some areas, and fats were generally deficient in the diet (24). Millet is still grown and used for preparing a local alcoholic brew.

Bemba food practices including food production and diet have been the subject of an economic study by Richards (1951)(25).

*However, focus on food production has to be balanced against other attributes. Malnutrition is known to occur even in households which may have produced a good crop given the multitude of other contributing factors.*

*Cogill and Zaza, (1990) and Hambayi, M. et al, (1995) have looked at the problem from the household angle, studying characteristics such as gender inequality, size of*

*household, education of mother, types and quantities of crops, livestock ownership, income, environment, clinic attendance, as well as geographical coverage of the problem. Short-term malnutrition is to some extent explained by socio-economic group, while stunting shows no improvement with socio-economic group.*

*Other studies such as Priority Survey II(PSII) found a connection between quality of water source and level of stunting being suggestive in urban areas; no association was found in rural areas. Compared to ZDHS 1992, Priority Survey II showed different results pertaining to the association between malnutrition and toilet facilities; ZDHS 1992 revealed a clear improvement in all three types of malnutrition with improving toilet facility. PSII has noted stunting to increase with distance from health facility. Somewhat perplexing findings were prevalence of stunting found to decrease with increasing family size. Small households in rural areas were found to be more at risk of chronic malnutrition. There was no difference in average dependency ratios between households with undernourished or normal children. Education of head of household was not a significant factor in rural areas. Neither was increase in farm size.*

*The pattern and age of malnutrition onset is rapid in infancy, suggesting an influence of maternal factors (stunting by 3-5 months and wasting peak between 12-24 months*

A question that remains begging when trying to explain the persistent high levels of malnutrition is whether recurrent infections are the major contributing factor in the area and why the child health clinics seem to be having little or no influence in dealing with malnutrition? Taking note that we shall pursue the latter question in another paper it is useful to observe the following on child health clinics. *Well baby clinics are popular and well attended by mothers, especially in the first year of life. "Since this is also the period when reduction in nutrition occur, it points to a huge potential these clinics have for addressing nutrition problems early in life." (Mutinta et al Cap 7 page 49)(3) Growth monitoring is done and mothers of malnourished children are supplied with High Energy Protein Supplement(HEPS).*

Mothers perceptions on causes of malnutrition have been documented in a study conducted at U.T.H (Simwanza, 1984)(4) It is interesting to compare the taxonomies found by Simwanza with findings of this study. What has evidently been missing in most of the country studies is a people centred analysis of the problem in terms of their perceptions on causes and effects, their beliefs and behaviour from a cultural standpoint. Uncertainties on impact of ongoing nutrition interventions (HEPS, nutrition education on child feeding and cooking demonstrations, nutrition gardens etc) further affirms the urgency to gain an emic view on malnutrition.

The project, Kasama Nutrition Research (ZM008102), was therefore developed to investigate the problem and study local perceptions, beliefs and practices thereof. This project took off in April, 1995 implemented in three phases. The first phase (exploratory study) assisted to determine focus areas for phase two (in-depth study). Participatory approach in generating the data and interpretation of same facilitated the emergence of the intervention phase.

This paper concentrates on analysis of local perceptions, beliefs and practices and how these explain patterns and interplay of factors investigated in this and other studies.

## 2. The problem and justification:

### Nutrition status of Under fives

Protein-Energy Malnutrition is the most common nutrition problem in Zambia. The rural areas have higher rates of under-nutrition than urban areas; 46% and 35% stunting respectively. One in four rural children are underweight while 7% are wasted.

Reliability of trend figures is questionable: Priority survey II and FHNIS survey data show increase in national stunting rates, from 39% in 1991 to 48% in 1993 and 53% in 1995. But as observed earlier, higher levels of stunting were recorded even before 1991 (54% documented by Cogil and Zaza in 1990).

Kasama district statistics show malnutrition in children under five years to be one of the top five causes of morbidity. The correlation between malnutrition and infection is well established (consistent observation of weight faltering with infection episodes during growth monitoring). Breastfeeding, appropriate weaning practices, child feeding (quantity as well as quality), are known to be the usual corrective interventions for malnutrition in addition to treatment of common ailments. The extent to which good practice is followed in these intervention areas could be dependent on cultural values and beliefs, existing knowledge on food and nutrition, and general attitudes and awareness of the extent and effects of the problem.

The rainy season affects the nutritional status of rural areas, as this period coincides with low food stocks, high incidence of infections (malaria, diarrhoea) and increased labour requirements for agricultural production.

It is likely that the narrow food base and inadequate food intake are at the core of this problem. Commencement of under nutrition in the first year of life has been linked to traditional weaning practices and maternal factors. Exclusive breastfeeding during the first six months and provision of nutritious complementary foods is problematic in many settings.

In Kasama district malnutrition is highly prevalent even in areas with abundance of food (such as the Chambeshi flood plain).

Forums for nutrition education need to be rendered systematic and better focussed in terms of technical content. Malnutrition may be picked as a topic for health education to mothers just before commencement of MCH clinic routine procedures. Some centres had attempted to organise cooking demonstration sessions to mothers, as well as nutrition demonstration gardens. The district questioned the benefits and effectiveness of these activities and decided to slow down on them until the research generates guidance on the way forward.