

# **Predictors of stunting among children 6–59 months of age in rural areas of Maswa district, Tanzania**

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## **Abstract**

Adequate nutrition is critical to child health and development. Malnutrition is a common health problem among children throughout the world. However, there has been minimal research particularly in the rural areas of Tanzania. The objective of this study was to examine the nutritional status of the under-five children in rural areas of Maswa district. Data for the study were collected from a total of 472 mother-child pairs using a structured questionnaire. The questionnaire captured information on various socio-economic and demographic factors, feeding practices and anthropometry for children aged 6–59 months. The survey data were analyzed using SPSS for windows version 17.0 whereas nutritional status data were analyzed using ENA for SMART (2011) software. Child nutritional status was assessed based on weight-for-age, weight-for-height and height-for-age. The overall prevalence rate of malnutrition as determined by stunting, wasting and underweight were 43%, 5% and 11%, respectively. Exclusive breastfeeding (EBF) was associated with higher Z- scores ( $p < 0.05$ ) for HAZ, WHZ and WAZ compared to scores of non-exclusively breastfed children.

The social risk factors for stunting were young mothers aged  $< 20$  years (Odds Ratio-OR =1.80,  $p = 0.041$ ) and single mothers (OR=1.19,  $p = 0.05$ ). However, reduced risks of stunting was associated with increased level of mother's education (OR=0.67,  $p = 0.0017$ ), increased duration of breastfeeding (OR=0.87,  $p = 0.023$ ) and household food insecurity (OR=0.52,  $p = 0.007$ ). Overall, interventions to address child malnutrition should take into account the socio-economic factors including poverty, food security and education levels of mothers and care givers in a particular local context. This could also require Local Government Authorities to ensure that nutrition interventions are included in the councils' plans and budgets.

**Keywords:** Child nutritional status, malnutrition, predictors, stunting, Tanzania