

POOR NUTRITION AND HEALTH PERSIST ACROSS SEASONS AMONG INFANTS AND YOUNG CHILDREN IN RURAL TANZANIA

Kissa B.M. Kulwa^{1,2*}; Patrick W. Kolsteren^{2,3}; Peter S. Mamiro¹

¹Department of Food Science and Technology, Sokoine University of Agriculture, P.O. Box 3006 Chuo Kikuu, Morogoro, Tanzania;

²Department of Food Safety and Food Quality, Ghent University, Coupure Links 653, B-9000 Ghent, Belgium;

³Unit of Nutrition and Child Health, Department of Public Health, Prince Leopold Institute of Tropical Medicine, Nationalestraat 155, Antwerp 2000, Belgium.

*Corresponding author

Background: Seasonal variations among farming households in developing countries affect nutritional status of adults. The extent to which seasons modify infant growth has not been adequately examined in rural Tanzania.

Aim: This study examined the nutritional status and health of infants during the post-harvest and harvest seasons. Both seasons were dry.

Methods: Two cross-sectional surveys were conducted in six randomly selected villages in Mpwapwa District (Dodoma Region, central Tanzania). Information on child morbidity, healthcare-seeking practices, malaria, anaemia and anthropometric assessments of all infants (1-12 months-old) was collected during the post-harvest season (2009). Same infants were revisited during the harvest season (2010).

Results: Prevalence of stunting increased from 33.7% in 2009 to 58.7% in 2010. Prevalence of acute respiratory infections (ARI) was higher than diarrhoea in both seasons (Table 1). While prevalence of malaria was low, anaemia rates were considerably higher in both seasons. Children were more likely to receive treatment during the harvest than post-harvest season (Table 2). Barriers to seeking health care included perceived high medical costs (38.8%) and long distance to health facilities (30.0%).

Conclusions: Prevalence of chronic malnutrition and ARI is unacceptably high, persisting across seasons. Interventions to improve nutrition and healthcare-seeking are urgently needed to ensure optimal growth and survival.

Table 1. Prevalence of morbidity conditions

Survey period	Illness past 2 weeks			% malaria	% anaemic
	% diarrhoea	% fever	% ARI		
2009 (n=496)	48.2	29.8	64.2	5.2	36.0
2010 (n=374)	36.6	25.7	56.8	2.2	36.7

Table 2. Healthcare-seeking behaviours by illness

Healthcare-seeking behaviour	Illness past 2 weeks					
	% diarrhoea		% fever		% respiratory illness	
	2009	2010	2009	2010	2009	2010
Treatment sought	71.4	75.6	76.4	90.2	67.8	84.0
Place treatment was sought						
Government health facilities	66.8	65.7	68.8	75.0	65.5	56.4
Pharmacy	14.0	28.4	15.6	21.4	20.0	41.3
Others	19.2	5.9	15.6	3.6	14.5	2.3