

Prevalence of malnutrition and vitamin A deficiency in Nigerian preschool children subsisting on high intakes of carotenes

Author(s): DA Adelekan, AO Fatusi, JB Fakunle, CT Olotu, IA Olukoga, MK Jinadu, EO Ojofeitimi

Abstract

The prevalence of malnutrition and vitamin A deficiency was determined in 204 preschool children of both sexes aged 3–57 months. The children were recruited from 2 rural communities of Atakumosa Local Government Area of Osun State in South West Nigeria. Dietary vitamin A intake was estimated from frequency of consumption of locally available vitamin A containing food items. Vitamin A status of the children was assessed from concentration of retinol in plasma. Nutritional status was assessed from height and weight compared with international reference standards. The results indicate widespread malnutrition among the children. The prevalence of stunting (low height for age) was 60.8% while prevalence of wasting (low weight for height) was 7.4% and of underweight (low weight for age) 27.5%.

Dietary vitamin A intake appeared to be adequate in the children. Intake of vitamin A is predominantly from plant sources. At least 43% of the children consumed the carotene rich red palm oil 6 or more times per week in contrast to less than 1% who consumed eggs or milk for 6 or more times per week. Vitamin A deficiency was low in the children. Only 11.3% of the children had plasma retinol concentration $<0.70\mu\text{mol/L}$. The results indicate that childhood malnutrition of public health magnitude can coexist with adequate dietary vitamin A intakes or vitamin A status.

Keywords: Prevalence of malnutrition, Vitamin A deficiency, Nigerian preschool children, Intakes of carotenes

DOI: <https://doi.org/10.1177/026010609701200102>

Journal of Nutrition and health

Published by: SAGE, on 1997/7