J Nutr Food Sci 2018, Volume 8
DOI: 10.4172/2155-9600-C6-069

Annual Conference on
Women and Maternal Nutrition and Care
Aug 31-Sep 01, 2018 | Toronto, Canada

Prevalence and demographic predictors of vitamin A deficiency among infants in Western Kenya using a cross-sectional analysis

Oyunga MA[1], **Grant FKE**[2], **Low JW**[2], **Ouedraogo H**[2], **Omondi DO**[3] and **Levin C**[4]
[1]Kenya Agriculture & Livestock Research Organization, Kenya
[2]International Potato Center, Kenya
[3]Maseno University, Kenya
[4]University of Washington, USA

Kenya loses 121,000 DALYs attributable to VAD which amounts to 0.5-1% of the gross national product, annually. A cross-sectional survey was undertaken among infants. Socio-demographic and dietary intake information was collected. RBP concentrations were assessed using DBS methodology. RBP was analyzed using rapid enzyme immunoassay and CRP was analyzed using an enzyme-linked immunosorbent assay to estimate VA and sub-clinical inflammation respectively. Adjusted values for inflammation using CRP >5 mg/L and VAD prevalence (RBP 0.70µmol/L retinol) estimated. Nutritional status was determined. Mean concentration of RBP was adequate (1.56±0.79µmol/L) but the inflammation-adjusted mean prevalence of VAD was high (20.1±1.1%) in this population. CRP level was within normal range (1.06±4.95 mg/L) whilst 18.4±0.9% of the children had sub-clinical inflammation (CRP>5 mg/L). VA capsule intake predicted VAD-not taking VAC a year preceding the survey had 30% increased the risk of VAD (OR (CI): 1.3 (1.1-1.7); p=0.025. Age predicted infants' VAD with older infants having a 30% increased risk of VAD (OR (CI): 1.3 (1.1-1.9); p=0.035); caretakers' knowledge on VA and nutrition predicted VAD- infants whose caretakers lacked knowledge having 40% increased risk of VAD (OR (CI): 1.4 (1.0-1.9); p=0.027. Infant's district of residence predicted VAD. Prevalence of VAD in this infants was high. Predictors of VAD included child intake of VAC in the year preceding the survey, older children, children whose caretakers had poor VA and nutritional knowledge and infant's district of residence. Improved knowledge on nutrition and VA of caretakers is needed, undertake targeted VAC distribution and use a sustainable food-based intervention in areas with severe VAD

oyungam2010@gmail.com