

## Abstract

Developing countries, more so those in sub-Saharan Africa, are having to grapple with high prevalence of vitamin A deficiency. Food based approaches are being recommended as the sustainable interventions. In Kenya, orange-fleshed sweet potatoes are being recommended as one such food. This study was therefore designed to assess the potential of orange-fleshed sweet potato to improve vitamin A intake by children 25-60 months old in Rumuruti division of Laikipia district, Kenya. , Using a semi-structured questionnaire, a cross-sectional survey was carried out among 227 mothers with the target children. The situation of vitamin A deficiency was assessed using one biological and five of a composite of demographic and ecological indicators. The extent of production and consumption of sweet potato by households were also assessed. A 24-hour recall was used on a sub-sample of 32 mothers to determine dietary intake of vitamin A by the children. A focus group discussion was used to determine awareness about night blindness and its local term. As a sub-clinical indicator for vitamin A deficiency, night blindness was carried out on only 4.8% of the children; the rest had received vitamin A supplementation within the last six months. Data was coded, entered, recoded and analyzed using MS Excel, Vitamin A Intake Calculator, SPSS and Epi-Info. None of the few children assessed showed any night blindness. However, demographic and ecological indicators indicated that the children were at risk of vitamin A deficiency: 86% households were surviving on less than one dollar per person per day and less than 75% of the children were consuming vitamin A-rich foods for more than 3 days in a storage of extra intake of beta-carotene in the body, while production and consumption of OFSP constitutes a sustainable source of vitamin A.