

East African Journal of Public Health

[Journal Home](#) > [Vol 10, No 3 \(2013\)](#) >

[Log in](#) or [Register](#) to get access to full text downloads.

Selenium levels in foods in a high hiv prevalence community, A case of pala in Bondo district Kenya

SB Otieno, F Were, A Afullo, K Waz

Abstract

Introduction: An investigation of dietary patterns and selenium levels in diets of smallholder farmers was carried out in Pala Sub-location between June and August 2008.

Methods: In this study a total of 386 respondents selected randomly were interviewed in the four villages in the sub-location and 17 foods commonly eaten sampled. The data was coded and analyzed by SPSS program while food selenium levels were analyzed by AAS.

Results: The foods eaten by 75.2% of the respondents were *Oreochromis niloticus*, *Lates niloticus* and Ugali-*Sorghum bicolor* spp , 64.1% eat vegetables and that both children and adults eat same types of food. It was further shown that traditional foods which have become extinct are mainly vegetables (46%). The study established that selenium levels in foods eaten in Pala sub-location varies, vegetables have higher levels of selenium, (*Laurnea cornuta* (148.5mg/kg) *Cleome gynandra*(121.5mg/kg), *Vignia unguiculata* (21.97 mg/kg), while *Rastrineobola argentea* (51mg/kg) *Oreochromis niloticus*(0), *Lates niloticus*(0) *Sorghum bicolor* spp (red) 19.97 mg/kg, and *Sorghum bicolor* spp(white)(0).The study showed that there is inverse relationship between foods eaten and selenium levels with foods eaten by 75.2% of respondents (*Oreochromis niloticus/Lates niloticus*) having no detectable selenium .

Recommendation: To increase selenium levels in the diet, more production and consumption of traditional vegetables should be encouraged, this should be accompanied by nutrition education targeting women and possibly using mass media on short term, while long term intervention should include fortifying the foods commonly purchased and eaten in the community like sugar, table salt, and maize meal and accompanied by increased selenium in animal feeds and in fertilizer.