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Home gardens, dietary diversity and household food security in urban informal settlements

CONSOLATA MUSITA¹, SOPHIA NGALA², GEORGE ABONG², TOSIN AKINGBEMISILU¹, CHRISTINE G. KIRIA¹, CÉLINE TERMOTE¹

¹*The Alliance of Bioversity International & CIAT, Food Environment and Consumer Behaviour, Kenya*

²*University of Nairobi, Food Science, Nutrition and Technology, Kenya*

Abstract

Malnutrition remains a global challenge. While Africa has made progress regarding the global nutrition targets, undernutrition coupled with overweight, and obesity persist. Informal settlements present unique challenges which exacerbates malnutrition, top on the list being poor dietary diversity and poor-quality diets. Increasing evidence shows that home gardens have the potential to improve food security and diets in rural areas but there is limited information in the urban informal settlements' context. The objective of this study was to analyse the correlations between home gardens, household food security and dietary diversity in urban informal settlements. The work builds on the baseline data from the HealthyFoodAfrica project in Kisumu (<https://healthyfoodafrica.eu/>).

The study, conducted in March/April 2022 in four informal settlements in Kisumu, Kenya, used a cross-sectional survey design with 510 randomly selected households. A semi-structured questionnaire captured information on presence/absence of a home garden. Household food security was assessed through Household Food Insecurity Access Scale (HFIAS). Dietary diversity (DD) data was collected for Women of reproductive age (WRA) and children 6–23 months using a quantitative 24-hr dietary intake recall tool. Logistic regression analysis was done while controlling for confounders.

Only 4.5% of households have home gardens, with significant differences across the four settlements ($p = 0.03$). DD was low for WRA (mean DDS= 4/10) and children (mean DDS=3/7). Having a home garden increased the chance of having higher DDS although no significant difference was observed for WRA ($p = 0.2$) and children ($p = 0.3$). Fruits and vegetables consumption was low (<20%). However, households with home gardens consumed more Vitamin A rich fruits and vegetables (WRA mean= 0.14 ± 0.36 ; child mean = 0.24 ± 0.44 ;) than those without (child mean= 0.15 ± 0.36 ; WRA mean = 0.08 ± 0.27) although not significant in both cases (child $p = 0.3$; WRA $p = 0.3$). HFIAS analysis showed households with home gardens have lesser tendency to be food insecure at 0.93 incidence rate ratio (0.83, 1.03 at 95% CI) than those without, although not significant ($p = 0.2$).

Findings show that promoting home gardens is an important pathway to improve food security and dietary diversity in food insecure settings such as informal settlements. Other research and policy implications are presented in the paper.

Keywords: Dietary diversity, food security, informal settlements, urban home gardens