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"Solidarity in a competing world — fair use of resources"

Orange Fleshed Sweet Potato Adoption Improved Dietary Quality: Evidence from Women and Children in Western Kenya

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Abstract

This study aims at understanding the influence of OFSP (Orange fleshed Sweet Potato) adoption and its intensity (share of OFSP area in sweetpotato area) in improving women and children dietary diversity and intake of vitamin A rich foods. Data were analysed from the endline study of a five-year integrated agriculture-health project in western Kenya. The project linked access to OFSP vines to public health services for pregnant women. In total, 2,269 mother-child pairs (children <24 months of age) were randomly selected in four intervention areas and four control areas. Two-stage instrumental variable and ordered logit regression models were employed to test effect of adoption on diet quality. Diagnostic tests for endogeneity and misspecification were conducted to confirm model validity. Two indices were identified: dietary diversity food groups consumed in pervious 24 hours,and the frequency of consumption of vitamin A-rich foods during the seven days prior to the interview. Not surprising, staple foods are the dominant food group, with less frequent consumption of nutrient-rich fruits and vegetables. The surveyed households reported consuming starchy staples (91 %), dark green leafy vegetables (80%), fruits and vegetables rich in vitamin A (26 %), other fruits and vegetables (58 %), organ meat (2 %), meat and fish (32 %), eggs (11 %), legumes (31 %), and milk products (80%). Women and children in households growing OFSP have 15 % and 18 % higher diet diversity scores, respectively, than those not growing OFSP. Similarly, the index capturing frequency of intakes of vitamin A rich foods was 10 %, and 20 %, higher for women and children in OFSP growing households, respectively, than those who not grow. Head age, mother's education, wealth index, and the sweetpotato plots have a positive effect on the dietary diversity and frequency of vitamin A intake. Households with limited access to a health facility, larger household size, and mother engaged in casual labor have less diversified diets and lower frequencies of consumption of vitamin A rich foods. Both OFSP adoption and the share of OFSP area have positive influence on dietary diversity and vitamin A intake for both women and children under two years of age in western Kenya.

Keywords: Adoption, children, malnutrition, OFSP, women

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