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Delivery of Nutrition Education through Agricultural Extension: Evidence from a Randomised Trial in Rural Kenya

ANDREA FONGAR¹, THEDA GOEDECKE², DAVIS MUTHINI³, ANTONY ASETA⁴, MATIN QAIM⁵

¹University of Goettingen, Department of Agricultural Economics and Rural Development, Germany

²University of Goettingen, Department of Agricultural Economics and Rural Development, Germany

³University of Nairobi,

⁴Africa Harvest Biotech Foundation International, Kenya

⁵University of Goettingen, Dept. of Agricultural Economics and Rural Development, Germany

Abstract

Background

The relationship of nutrition and agriculture has long been established and that agricultural technologies and extension can play an important role in stabilising food security. However, agricultural and nutritional programs are mostly implemented independently. Acceptance of nutrition education on specific topics and agricultural extension has shown positive effects by itself, but to our knowledge has not been tested in a merged setting. Therefore, the present study wants to test the effectiveness of nutrition education, when delivered through agricultural extension.

Methodology

A one-year intervention introduced nutrition education within an agricultural program, which introduced pro-nutrition innovations. Unit of intervention were existing common-interest groups (CIG's) in two counties in Kenya. In a multi-stage sampling strategy, first 48 CIG's were randomly sampled. In the next stage 20 members of each group to interview. For the intervention a randomised control trial design was introduced and CIG's were randomly assigned into treatment (24) and control (24) groups. Treatments included agricultural training on two nutrition-sensitive technologies and a combination of nutrition education covering introduction of nutrients, nutrition during different life cycles and health. At baseline in late 2015, 809 households were interviewed about their dietary behaviour. Anthropometric data was collected for two adults and a child between six to 59 month of age of each household, as well as nutrition knowledge. Follow-up data on the same household was collected in late 2016.

Results

At baseline dietary diversity of the households depict usage of nine food groups and energy intake was 3243 kcal/day/AE. At individual level energy and food group consumption was slightly lower. At baseline no significant differences between the two groups were found concerning dietary diversity, dietary quality and anthropometric measures, except at individual dietary diversity (IDD) and Body mass index (BMI) measures (IDD $t(1024)=2.57$, $p = 0.0115$; BMI $t(1042)=3.12$, $p = 0.000$). Next step is to analyse difference between our two data round to test the effectiveness of the nutrition education intervention. We test the effects of nutrition training on nutrition knowledge, indicators of dietary quality at different levels, as well as anthropometric measures.

Keywords: Agricultural Extension, Dietary Diversity, Kenya, nutrition Education, RCT