Nutrition Education and Kitchen Garden Intervention Improves Dietary Diversity Among 6-59 Months-old Children in Kenya

HealthyLAND Project

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Samwel Mbugua[1], Elizabeth Kamau-Mbuthia[1], Irmgard Jordan[2], Ann Mwangi[3], Julius Khaemba[1], Lydiah Maruti Waswa[1], Thomas Hilger[4], Ernst-August Nuppenau[2]

[1] Egerton University, Department of Human Nutrition, Kenya, [2] Justus Liebig University Giessen, Germany, [3]Moi University, Department of Behavioral Sciences, Kenya, [4] University of Hohenheim, Germany

Baseline Survey

Nutrition education training

Sample CHV Nutrition education training certificate

Kitchen garden

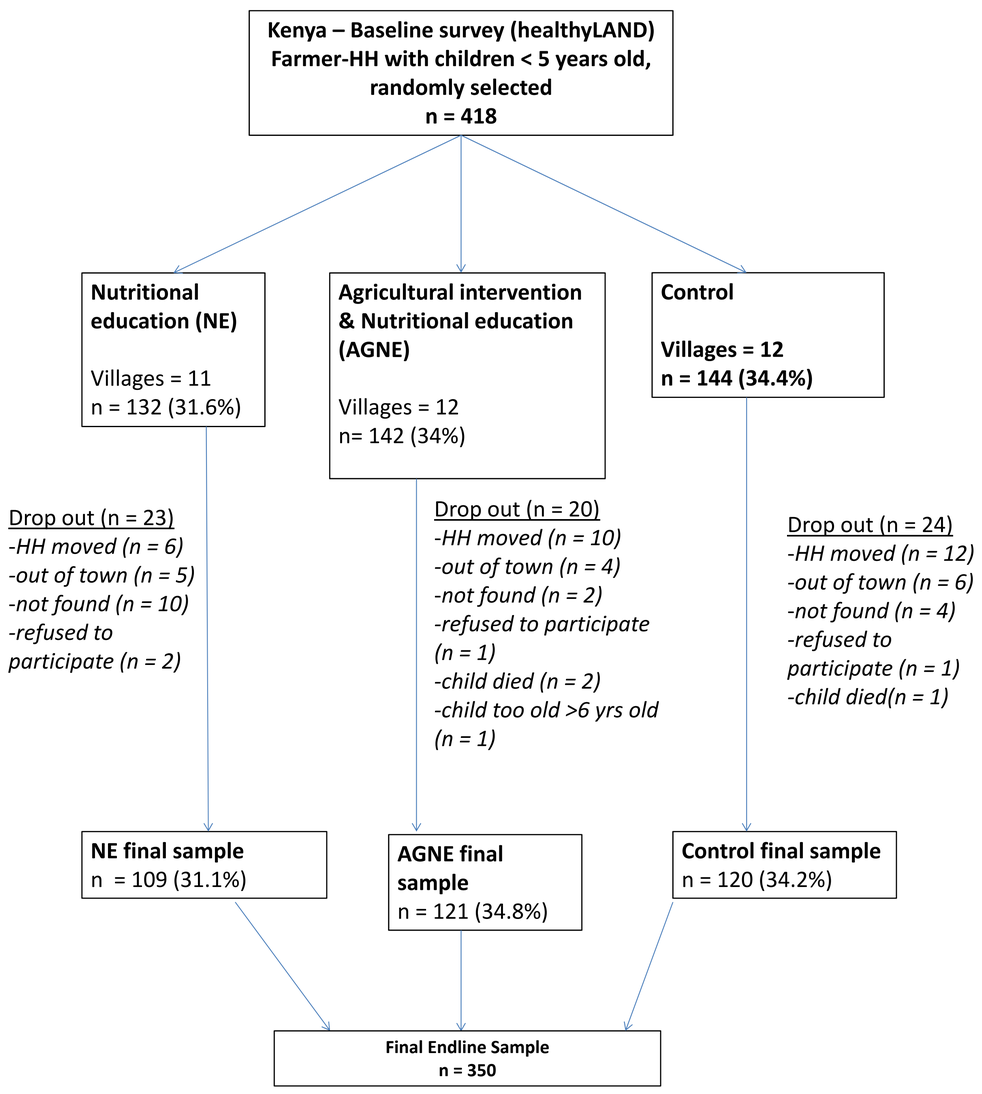
Nutrition education session

Introduction

Increasing evidence suggests that effective nutrition education integrated with kitchen garden interventions hold the promise of improving child diets (1). The objective of this study was to assess change in dietary diversity of children 6-59 months whose mothers participated in nutrition education sessions or nutrition education plus agriculture extension in the form of kitchen garden improvement.

Methods

- A longitudinal study in Teso South Sub-County was conducted between May 2016 - June 2017.
- The baseline survey of 418 children aged 0-59 months and their caregivers were selected from 35 randomly selected villages with 12 households targeted per village.
- Cluster randomized control trial with pre and post intervention evaluation.
- Integrated nutrition and agriculture intervention.
- Dietary diversity measured based on the WHO 7 food groups categorization.
- This pre-post analysis covered 314 children aged 6-59 months
- Chi-Square and regression analysis were used to measure association and magnitude of change.

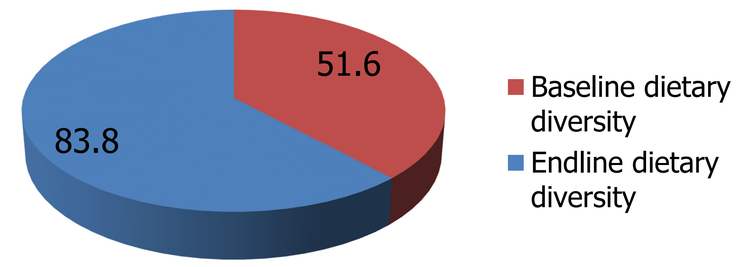


Full Study flow diagram

Results

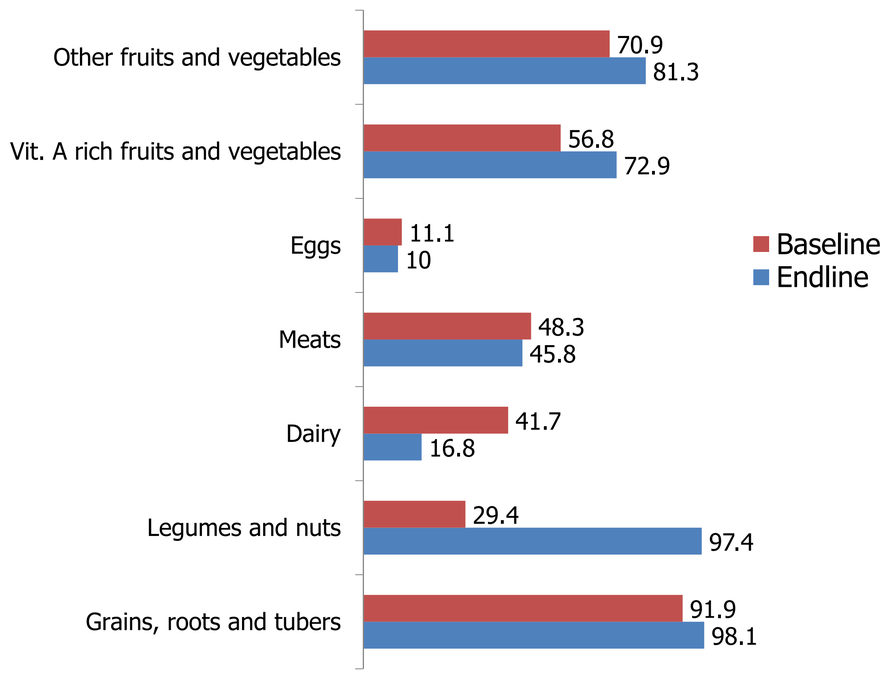
After intervention allocation there were no significant differences in baseline socio-demographic characteristics across intervention arms.

There were non-significant differences in baseline minimum dietary diversity by intervention arms; 51.8% (Nutrition education), 51.8% (Agric & Nutrition education) and 43.5% (Control), (p=0.370).



Percentage of Child dietary diversity at baseline (n=334) and end line (n=314)

Foods from grains/roots/tubers, legumes and other fruits and vegetable were the most consumed.



Percent food consumption from 7 food groups among children 6-59 months of age

Pearson Chi-Square test after intervention, there was a significant difference in minimum dietary diversity by intervention arms (n=314); 83.8% (Nutrition Education), 84.8% (Agricultural and nutrition education) and 69.1% (Control), (p=0.007).

Table: Logistic regression analysis of dietary diversity at end line of nutrition education against nutrition education with agriculture and control groups

Dietary diversity at end line	AOR	SE	P	CI
Nutrition education with agricultural intervention	1.07	0.413	0.84	0.50 - 2.28
Control	0.43	0.147	**0.01***	0.22 - 0.84
Constant	5.18	1.416	0.00	3.03 – 8.85

The logistic regression model showed significant differences in dietary diversity between intervention arms. The model adjusted for baseline dietary diversity, maternal education level and age of the child.

Conclusion and recommendation

- Nutrition education and combined nutrition education and kitchen gardens interventions had significant effect on child diet quality.
- Investing in agriculture and nutrition staff is a sustainable and feasible approach to improving child nutrition.

References:
1. FAO (2016) Integrating agriculture and nutrition education for improved young child nutrition: Technical meeting report. Rome, FAO.
2. WHO (2007) Indicators for assessing infant and young child feeding practices: Part 1 definitions. Geneva, Switzerland.

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Contact : samwel.mbugua2@gmail.com or samwel.mbugua@egerton.ac.ke

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