

The Role Of Supplemental Food Aid In Combating Food Insecurity and Related Malnutrition Among Children: The Case Of Kenya

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Introduction

- ❖ Undernutrition is a leading cause of childhood mortality at the global level.
- ❖ There are various interconnected and multisectoral factors associated with childhood undernutrition, these include: food insecurity, inadequate maternal nutrition knowledge, inadequate child feeding practices and poor sanitary practices.
- ❖ Nutrition education and supplemental feeding interventions are commonly combined to combat childhood undernutrition in food impoverished areas.
- ❖ Harvest Lentil Vegetable Blend is a supplemental food made of rice, lentils, carrots and onions. This supplemental food is easy to prepare, and it contains essential nutrients during child's growth such as protein, iron, iodine and folate.

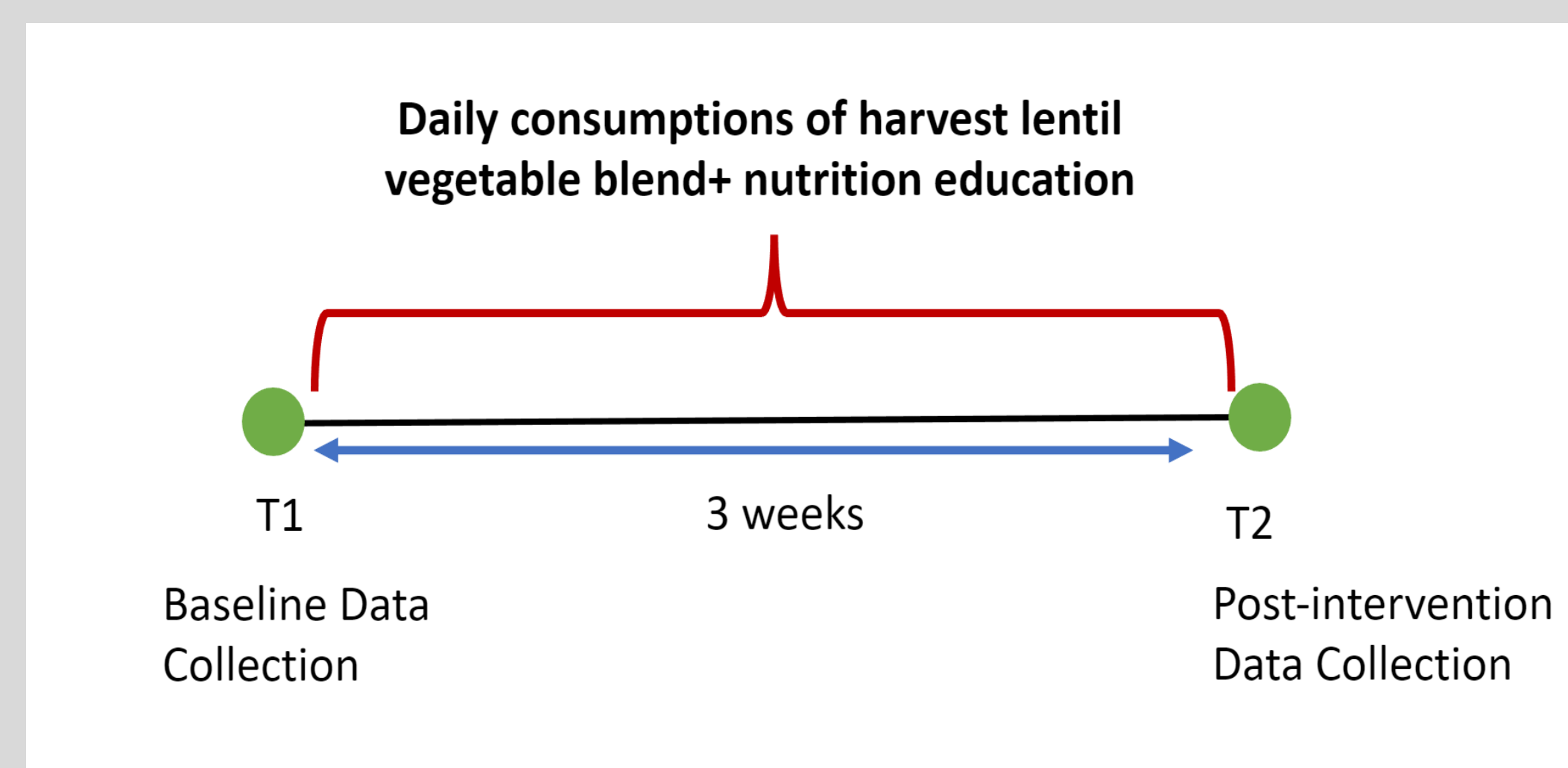


Objectives

To assess: (i) the effect of Harvest Lentil Vegetable Blend on the child's nutritional status, and (ii) the effect of a nutrition education intervention (NEI) on improving caregivers' child feeding and water sanitation and hygiene (WASH) practices.

Methodology

- ❖ **Study Design:** This was a three-week pretest-posttest pilot study
- ❖ **Participants:** Children 6mos-59mos with their caregivers
- ❖ **Location:** Turkana County, Kenya
- ❖ **Interventions:**
 - ❖ Participating children received one meal daily of supplemental food for three weeks.
 - ❖ In addition, caregivers received 2-4 sessions of nutrition education.



Methodology

❖ Data Collection procedures:



- ❖ **Measurable Outcomes/Analysis:** Child's weight-for-height z scores (WHZ), weight-for-age z scores (WAZ), and weight. Caregivers' nutrition knowledge and WASH practices. Wilcoxon signed rank, and McNemar tests were used to assess the change in variables from pretest to posttest.

Results

- ❖ In total 211 children under 6mos- 59mos and 178 caregivers participated in the study.
- ❖ All participants (100%) were severely food insecure.
- ❖ Around 24.6%, 30.9% and 36.9% of participating children were stunted, underweight, and wasted at baseline.
- ❖ The intervention improved the perception of food insecurity among participants ($p < 0.001$).
- ❖ After the intervention, significantly more households reported using improved drinking water sources ($p < 0.001$).
- ❖ The daily consumption of the supplemental food significantly increased the mean WAZ (0.3, $p = 0.03$) and mean WHZ (0.5, $p = 0.002$), it also led to a slight change in the mean weight (0.3kg, $p = 0.07$).
- ❖ There was a 4.1% and 3.8% reduction in the prevalence of wasting and underweight among children, these changes were not statistically significant.

Table 1. Child' anthropometric measurements before and after the interventions

Anthropometric measurements	Mean at T1	Mean at T2	Mean changes	P-value
Weight	11.0	11.3	0.3	0.07
WAZ	-1.5	-1.2	0.3	0.03
WHZ	-1.7	-1.2	0.5	0.00

Results

Figure 1. Change in Nutrition Status of Turkana Children

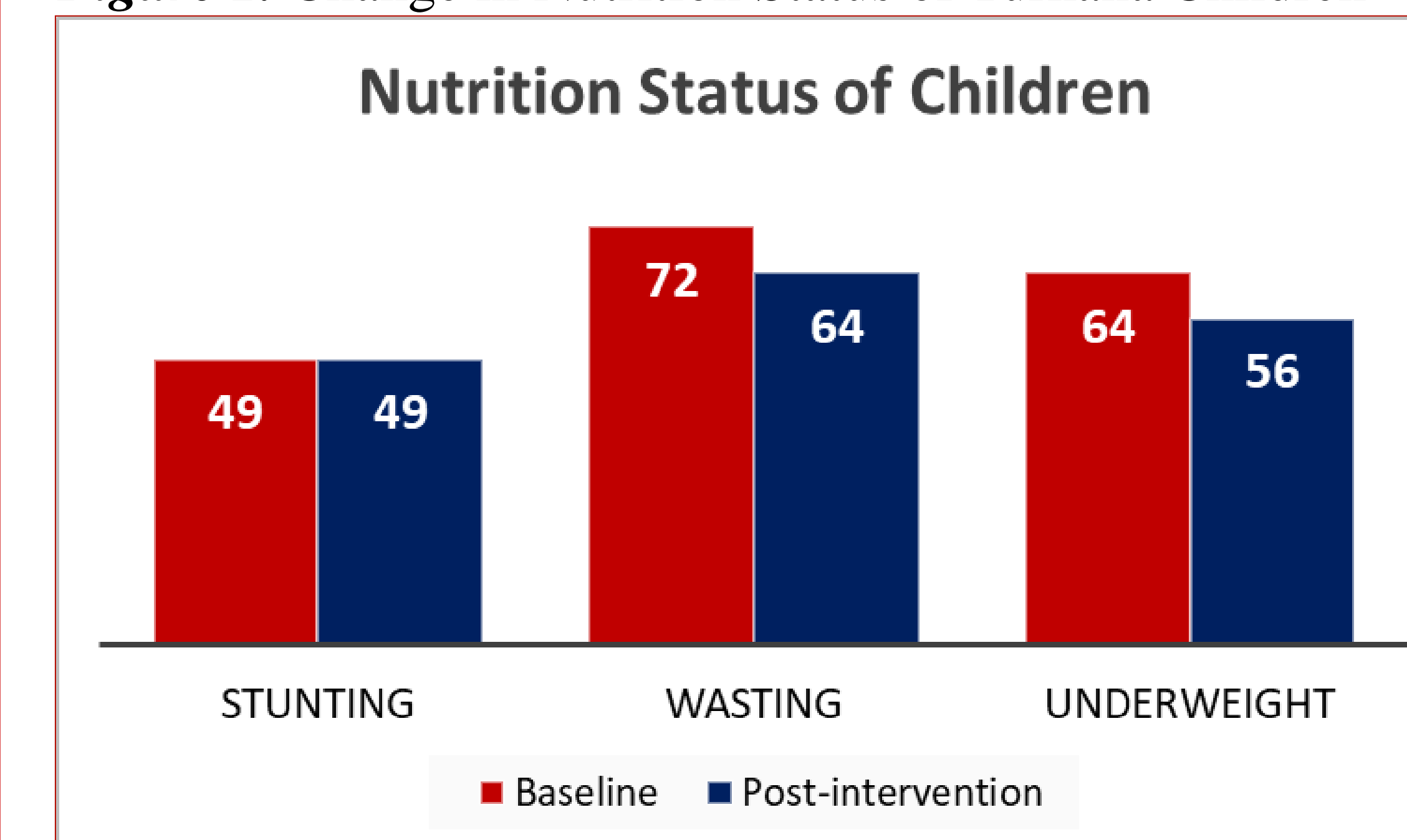


Figure 2. A before and after picture of a child with kwashiorkor who consumed the supplemental food for 3 weeks.



Conclusion

- ❖ Results of this study suggest that Harvest Lentil Vegetable Blend consumption is associated with improved nutritional status of children.
- ❖ Furthermore, this study indicates that a NEI is effective in improving WASH practices in a pastoralist community.

Future Directions

- ❖ Longer controlled study (8 weeks) to detect robust effects of Harvest Lentil Vegetable Blend on child's health outcomes.
- ❖ Designing and implementing a theory based NEI that adopt healthy literacy techniques for a greater improvement of child feeding practices

Acknowledgments

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