

# The Role Of Supplemental Food Aid In Health Outcomes Of Population At Risk: The Case Of Kenya

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## Introduction

- ❖ The world is facing a global crisis of food insecurity. Around 30% of the world population are either moderate or severely food insecure.
- ❖ Children are among the most vulnerable population to the consequences of food insecurity, and around 45% of child deaths are associated with food insecurity-induced malnutrition.
- ❖ Supplemental foods have been widely proven to be effective in reducing and preventing malnutrition in developing countries.
- ❖ Harvest vegetable lentil blend is a supplemental food made of generalizable ingredients (rice, lentils, carrots and onions). This supplemental food is rich in various crucial nutrients such as protein, iron, iodine and folate.



## Research Aims

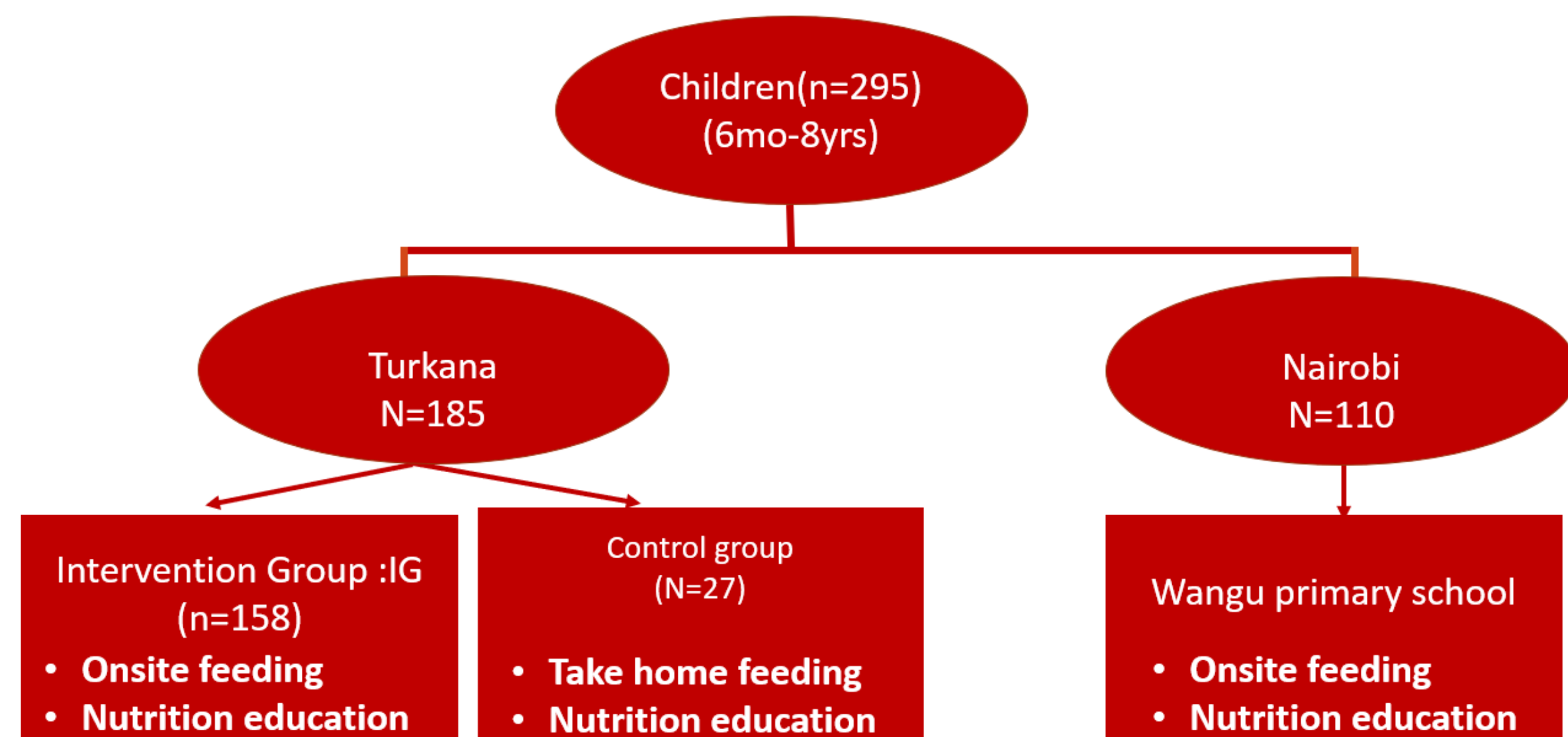
The purpose of the study was twofold:

- ❖ To investigate the effect of providing a supplemental food on the feeding site vs taking the food home in improving child's weight, Mid Upper arm circumferences, and nutritional status.
- ❖ To test the effect of a nutrition education intervention in improving caregiver's child feeding and water sanitation and hygiene (WASH) practices.



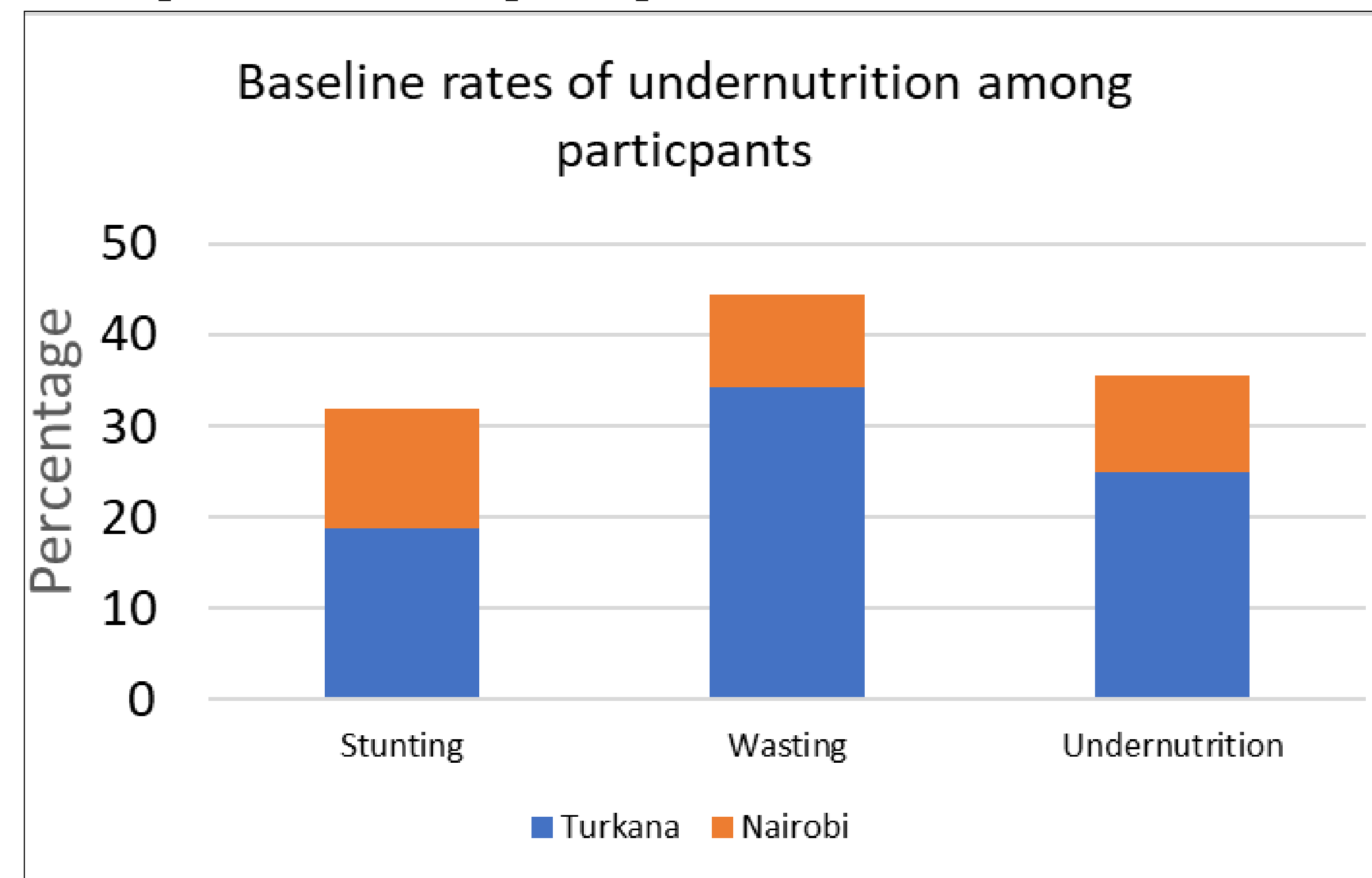
## Research Approach

- ❖ This was a pre-post multi site study with a 3 weeks study period.



## Baseline characteristics

- ❖ Majority of the participants (97.7%) from both sites were severely food insecure
- ❖ Rates of undernutrition was higher among Turkana participants compared to Nairobi participants



- ❖ The intervention improved the perception of food insecurity among onsite feeding participants but not among the control group. Similarly, perception of food accessibility was significantly improved among all the Turkana participants (p<0.001).

## Observable changes



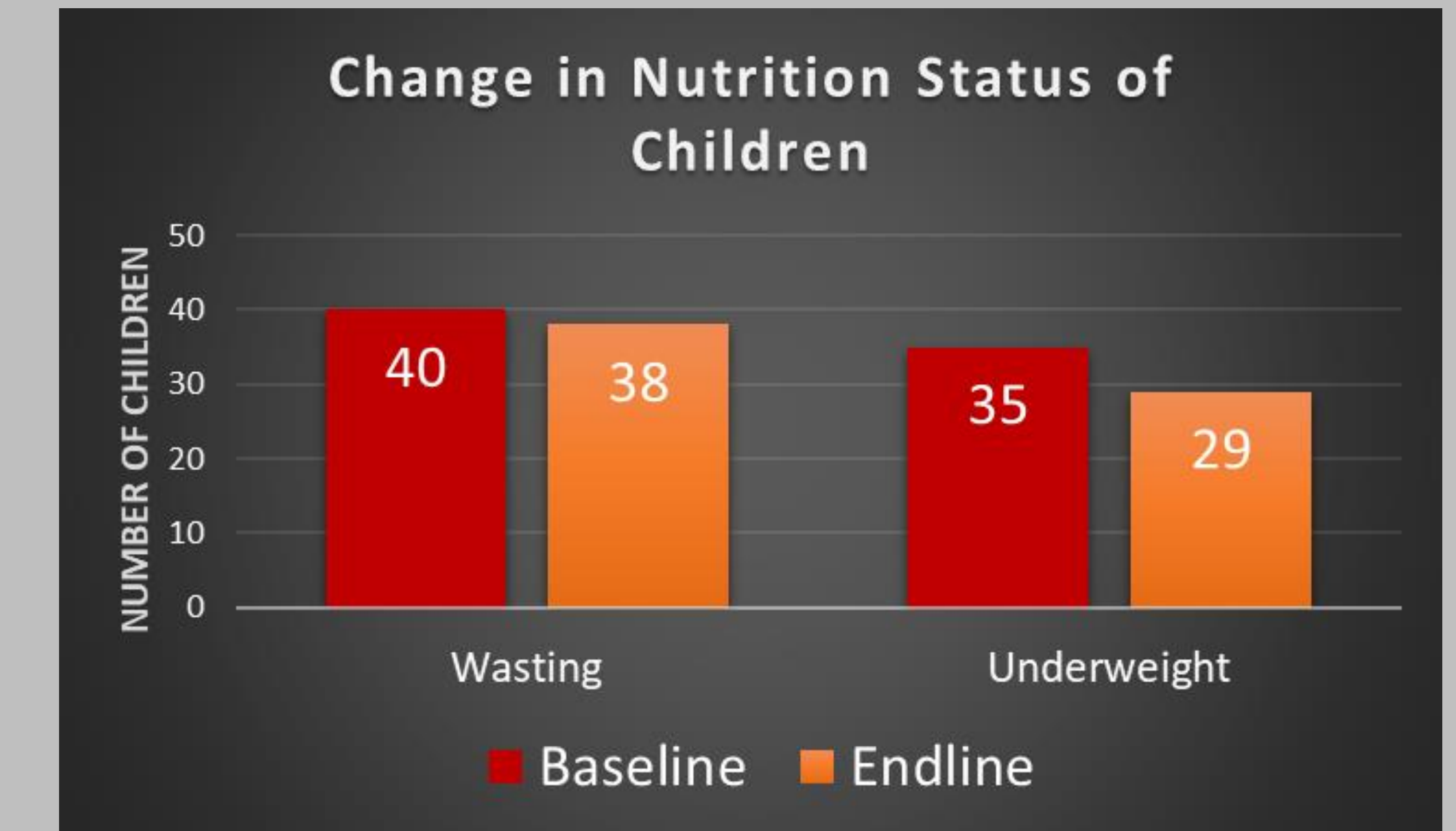
Figure 1. A before and after picture of a child with kwashiorkor who consumed the supplemental food for 3 weeks. In addition to the reduction of the swollen belly of this child, his MUAC changed from 11.6cm to 12.5cm, after the intervention

## Improvement In Nutritional Status

Table 1. Change in weight and MUAC among participants in both sites

Anthropometric measurements	Mean at T1	Mean at T2	Mean changes	P-value
Turkana				
Weight	11.164	11.264	0.1	<b>0.143</b>
MUAC	13.272	13.336	0.063	<b>0.273</b>
Nairobi				
Weight	18.4	19.09	0.69	<b>0.024</b>
MUAC	16.4	17.00	0.60	<b>&lt;0.001</b>

- ❖ There was 4.5% and 1.7% reduction in the rate of undernutrition and wasting among Turkana participants. However, the changes were not significant.



## Conclusion

- ❖ Results from this study suggest an association between consumption of harvest Lentil Vegetable blend and improved nutrition status of children in only 3 weeks.
- ❖ Results from this pilot study suggest that food aid targeting severely malnourished children should aim at providing onsite feeding to accelerate the improvement in the nutritional status of these children at risk.

## Acknowledgements

This study was funded by Breedlove Food Inc., a nonprofit organization that process and packages harvest lentil vegetable blend.