

# Aflatoxin free complementary food to improve the growth of the children

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## Key messages

- Stunting, underweight and wasting of the children between 0-23 months is mainly affected by the food that they are consuming which is mainly maize based with poor dietary diversity (Table 1).
- The quality of the food is also affected by aflatoxin contamination with >80% of the children exposed to aflatoxin through the diet. Hygiene related issues further affect the growth and health of the children.
- By improving hygiene, quality of the food and dietary diversity the child growth can be improved.

## Objectives and approach

- To study the potential impact of utilization of safe and nutritious food available locally (cereals, legumes, vitamin A rich vegetables and green leafy vegetables) on growth of the children under 5 yrs of age.
- Ethical approval obtained to conduct this study and farmers who are the part of innovation platform were engaged. The mothers from the communities who are also part of innovation platform were also engaged.

## Key results

- The complementary food recipe that was accepted by >94% of the mothers comprises maize and finger millet (cereals), pigeonpea and soya (legumes) along with vitamin A rich vegetable (Carrot) and green leafy vegetable (amaranth). The recipe was prepared based on daily requirement allowance of macro and micronutrients.
- This recipe increased dietary diversity and improved growth of the children in terms of weight and MUAC (mid upper arm circumferences) within 21 days.
- The recipe was tested for its acceptability. Its efficiency to improve the growth of the children was positive.

## Significance and scaling potential

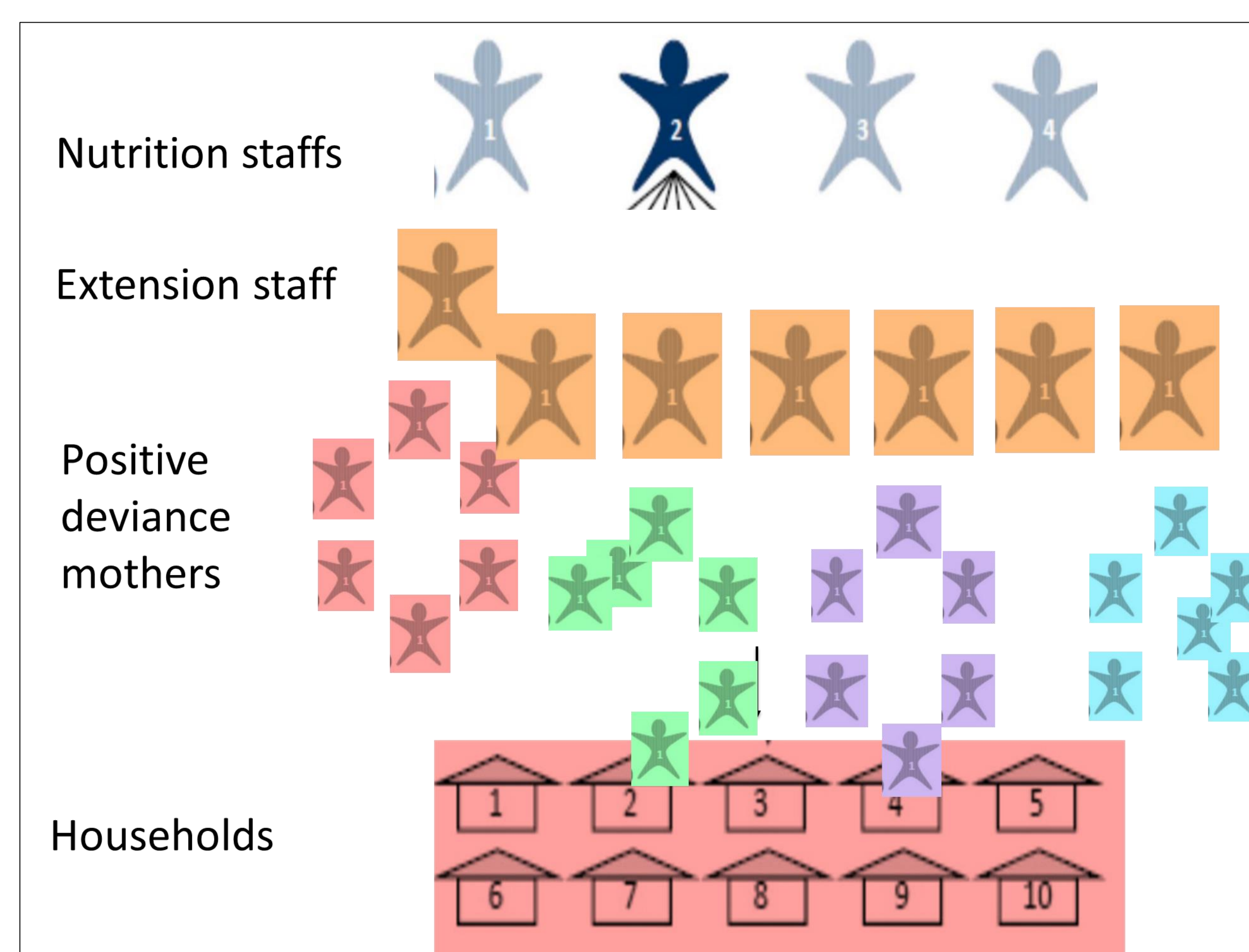
- The result shows the strong link between consumption of safe and nutritious food, proper hygiene and child growth.
- The trained mothers and care givers are significant players to reduce undernutrition status. Within 21 days training period the positive response were recorded in children growth.
- All the food that were used in this study was obtained from local source which is affordable for the mothers (approximately 150 Tsh per serving).
- This can be trained to the nursing mothers when it is linked to SUN initiatives using foods targeted by Africa RISING.

Indicators	Value, number of sample Age in months
Exclusively breast fed (EBF), %	(69.1%), 87, <6 months
Dietary diversity score, mean (SD)	3.00 (1.1), 87, 6-23 months
Met minimum dietary score, %	39 %, 87, 6-23 months
Meal frequency, mean (SD)	2.31 (0.96), 87, 6-23 months
Met minimum meal frequency (MMF), %	43.7 %, 87, 6-23 months
Met minimum acceptable diet, %	18.4 %, 87, 6-23 months

**Table 1:** Infant and young child feeding practice (IYCF)



**Figure 1:** The mothers with children under 5 yrs during the study



**Figure 2:** Scaling out model

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