Agriculture for Nutrition: Groundnut Post-harvest 2010-2015

Changes in knowledge, perception, and attitudes of families towards child and family nutrition

2015: A follow up survey of the mothers (n=264) of the target children in Tanzania was carried out approximately 1 year after the intervention to monitor utilization of complementary food based on groundnuts after the intervention period was over. The results showed that 96% of the mothers of the target children are still practicing what they learnt on nutrition and complementary food formulation.

Changes in childhood feeding practices (diversity)

The recommended recipes in the Malawi study were met with an acceptability rate of 82% in the intervention group, children especially preferred a recipe that included pigeon pea and finger millet, in addition to the maize, groundnut, carrot and amaranth greens that the comparison recipe had.

Improved child nutrition

2014-2015: A Randomized Control Trial was done in 2 districts in Malawi (n=179) and Tanzania (n=264) of households with children between 6-23 months of age. Results show that the training: 
• Raised the z-score for wasting by 0.85 within 3 weeks in Malawi. Weight for age increased by 1.5 in Tanzania over 12 months.
• Decreased the frequency of diarrhea significantly after the first week in Malawi.
• Increase the dietary diversity score from 2 to 4 in Malawi.

Training of rural families and communities in nutrition and child feeding practices; Promotion of:

- nutrient dense and diversified foods, food safety, and post-harvest technologies

In Malawi 91 intervention households mothers received 21 days of nutrition training on nutrients, complementary food recipes, how to choose grains to avoid aflatoxin exposure, and sanitation. The recipe training was for a complementary feeding porridge with legumes, vegetables and grains and involved in-home visits and coaching by positive deviant mothers in the community. In Tanzania there was a similar training intervention for 264 children in 4 districts, but over a year.

Understanding local contexts and knowledge around feeding practices and food availability

2014: Among 241 households in 3 districts in Malawi who have children between 6-23 months of age:
• 33% of the children started consuming complementary food before 6 months of age.
• Less than 25% of the mothers had knowledge of the importance of nutrients in complementary food.
• 7% of children met the minimum dietary diversity (mean dietary diversity score of 2.0, SD 1.0)
• 50% of children met the minimum meal frequency
• 87% reported never treating water before drinking
• 79% of children had had diarrhea
• 50% of children had no or non-detectable level of aflatoxin in urine (AFM1). The AFM1 scores were correlated with low weight for height. The average aflatoxin concentration in maize was relatively low and not correlated to AFM1 scores, suggesting some of the contamination comes through breastmilk.

Incentivize, support reinforce farmer participation to ensure responsiveness to farmers’ needs, knowledge, problems, concerns & constraints

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Look for intersections and interactions among multiple, interrelated pathways of change.

Southern Africa Community of Practice

Nutrition conversations

Project Partners

Sokoine Univ. → ICRISAT → CFNA → NASFAM
Chitedze Research Station → World Vision → IMAI
National Association of Smallholder Farmers Malawi → UNATI
Mozambique Agricultural Research Inst. → Plan International

Nutrition conversations

Sharing and learning among regional and global ag for nutrition communities


Integrate M&E

Enhance resiliency and sustainability

Integrate local & global inquiry

Legends:

- Non-Governmental Organization
- University in Region
- National Ag Research Center
- International Ag Research Center
- Farmer Organization
- International Non-Governmental Organization

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