Implementing large scale food fortification in Tanzania: Lesson Learned

Kaishozi G[1], Kitururu I[1], Dhillon C [1], Johnson Q[2]

[1]Helen Keller International Tanzania, Tanzania; [2]Flour Fortification Initiative Canada.

Introduction

Deficiencies in essential vitamins and minerals, including vitamin A, iron, folic acid, iodine and zinc, are key contributors to morbidity and mortality in Tanzania. Every year micronutrient deficiencies cost the country over US$ 518 million and around 2.65% of the country's GDP. According to TDHS 2010, 33% of children below 5 years are vitamin A deficient, 35% of children are iron deficient, 69% of children are anemic and 42% of children are stunted. Among women of reproductive age (15-49 y), 37% are vitamin A deficient, 30% are iron deficient and 40% anemic. To address these needs, the government of Tanzania passed mandatory food fortification legislation in 2011 for wheat, maize flour and vegetable oil. Approved fortificants are iron (sodium iron EDTA), zinc, vitamin B 12 and folate for wheat flour and maize, and vitamin A for vegetable oil.

Objective

To identify achievements and lessons learned in initiating **Large Scale Food Fortification in Tanzania** with support from GAIN, DFID, FFI-Canada and HKI from 2011-2014.

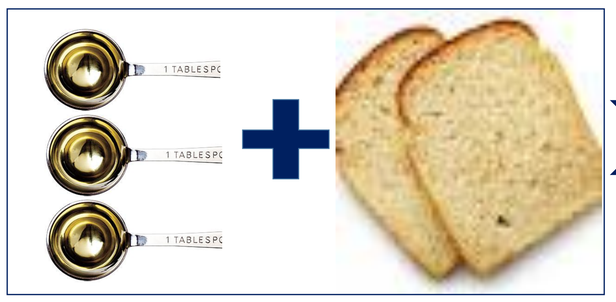
Methods

Achievements and lessons learned were gleaned from project documents and interviews with key fortification stakeholders, including focal persons from government agencies (Tanzania Food and Drug Administration, Tanzania Food and Nutrition Council, National Food Fortification Alliance, Ministry of Health) and quality control managers of participating industries.

Production data were obtained from industry records and were compared to the amount of premix supplied by the approved local premix hub based in Dar es Salaam.

Estimates of per capita consumption of fortified food products (wheat flour and vegetable oil) were based on data from a fortification rapid assessment (FRAT) conducted in Dodoma and Arumeru ditricts of Tanzania in 2007.

Food fortification logo



Recommended Daily Allowance of Iron, Vitamin A, and Folic Acid in Tanzania

Results

- Standards by Tanzania Bureau of Standard (TBS) and regulations passed by TFDA in 2011 made fortification of wheat flour and cooking oil mandatory, and premix and vitamin A have been made tax exempt
- A premix provider is established in Dar es Salaam
- National food fortification was launched in May 2013 and by March 2014, 92% of both wheat flour and vegetable oil was being fortified
- More than 48% of Tanzania's mainland population (21 million people) are now reached with fortified food products
- 6 large wheat flour and 3 large vegetable oil industries have been certified by TFDA to participate in the national program
- A web-based system is used to collect food fortification data from key partners
- Training and capacity building of the public and private sector and civil society to ensure quality control in:
  - Compliance and Regulations for maximum quality
  - Proper storage dosing and calibration of machines
  - Sample collection and testing
  - Awareness and demand creation
  - Adherence to Ntl. Standards for fortified products

Lessons Learned

- Political will and commitment can trigger action in both public and private sectors to achieve food fortification with national nutrition impact.
- Establishing a mechanism to help industries absorb some of the initial start-up costs facilitates roll-out.
- Appropriate capacity building and QA/QC procedures within industry are essential to ensure quality and supply of fortified products.
- A concerted effort among all partners to ensure continuous external monitoring is done and standards are applied equally across the board is needed to assure quality production and industry compliance

Conclusion

Large scale food fortification is feasible even in poor countries and is a cost-effective approach for delivering much needed micro-nutrients.

Acknowledgements

The authors thank NFFA members, TFDA and TFNC food fortification focal persons and industry representatives for their participation in this study, thank the U.K. Department for International Development (DFID) and GAIN for supporting food fortification initiatives in Tanzania, and thank Smarter Future for funding the presenter to participate in the Micronutrient Form