



East Central and Southern African Health Community (ECSA-HC)

Flour fortification in the ECSA region and an overview of ECSA standards

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Outline

1. Introduction of ECSCA
2. Background to the ECSCA Regional FF Initiative
3. Progress made
4. Process of development of Regional Standards including sources of data
5. Current fortification standards
6. Conclusions and Next Steps



1. Introduction

- Intergovernmental organization established in 1974 under auspices of Commonwealth Secretariat in London – Commonwealth Region Health Community (CRHC)
- Autonomous regional organization in 1981, ratification of convention and adoption of new name ECSCA-Health Community in 2005
- Headquarters – Arusha, Tanzania.
- Mandate of the organization is **“to promote and encourage efficiency and relevance in the provision of health services in the region”**



2. The ECSA Regional Food Fortification Initiative

- Started in response to a Resolution passed by the ECSA Health Ministers in 2002 instructing Secretariat to collaborate with partners to promote food fortification
- In 2004, Secretariat in collaboration with USAID, UNICEF, GAIN and MI organized a regional workshop for ECSA countries in Lusaka, Zambia to develop strategies and action plans to implement the Ministers' food fortification resolution
- Workshop developed a consensus statement:
"Building regional collaboration in food fortification will facilitate the implementation of this vital national public health intervention"



The ECSA Regional FF Initiative cont'd--

Main Objective:

To fast-track the implementation of food fortification in the ECSA Region through adequate policy and legislation, technology and research, promotion and advocacy, monitoring and surveillance

Specific Objectives for the Initiative:

- ✓ Fortify sugar with vitamin A
- ✓ Fortify edible oil with vitamin A
- ✓ Fortify maize and wheat flours with iron, zinc, vitamin A, folate, vitamins B-1, B-2, B-6 and B-12
- ✓ Ensure that >90% of households in the region have access to adequately fortified salt



The ECSA Regional FF Initiative Cont'd..

Approach used:

Formation of 4 technical working groups to harmonize and accelerate food fortification activities in the Region

1. Regulations, Standards and Food Control
2. Laboratory Strengthening and Network
3. Technical and Trade Support
4. Advocacy, Coordination and Resource Mobilization

Technical Groups developed and presented action plans to the countries through convened Regional Workshops

- Planning and implementation of the initiative was through multi-stakeholder collaboration (ECSA, USAID, UNICEF, GAIN, ICCIDD, MI, Member States' chief nutritionists, food standards officers, regional trade officers, food manufacturers and fortificants suppliers)



3. Progress made in the region

1. Regulations, Standards and Food Control

1A: Regulations and Standards

- i. Collection of secondary data to determine national availability, accessibility & consumption of staple and commonly consumed foods
- ii. Development of guidelines on food fortification levels by use of the formulator tool
- iii. Countries trained on use of the 'formulator' to develop standards
- iv. Countries supported in revision of national standards
- v. Development of draft model standards on fortified foods



1. Regulations, Standards and Food Control

1B: Food Control

- i) USAID and A2Z supported development of 17 food control manuals for salt, oil, sugar, maize flour and wheat flour.
- ii) Scope of Manuals:
 - i. Internal Monitoring (Quality Control and Quality Assurance) procedures for large and small scale factories (in the case of salt and maize flour)
 - ii. External Monitoring (Technical Auditing and Inspection) combined with QC) in large and small scale factories
 - iii. Commercial Inspection of fortified foods
 - iv. Inspection of fortified foods at importation sites.
- ii) Trained 4 countries on the use of these manuals (Uganda, Kenya, Malawi and Tanzania).



2. Laboratory Strengthening and Network

- i) Analysis of existing testing capacity in the region
- ii) Training of Laboratory Analysts in 2 phases:
 - i) Kenya, Malawi Tanzania, Uganda and Zambia – September 2005
 - ii) Rwanda, Burundi, Ethiopia and Somaliland –March 2009
- iii) Establishment of Laboratory Proficiency Testing (LPT)Scheme
- iv) Developed a manual on testing procedures



ECSCA Laboratory Proficiency Testing Network

- So far conducted 4 rounds.
- 1st, 2nd and 3rd round included laboratories from Kenya, Uganda, Tanzania, Malawi and Zambia
- 4th round in 2009 included “newly trained countries” (Burundi, Rwanda, and Ethiopia)
- Review meetings conducted after each round to share results and discuss on remedial actions



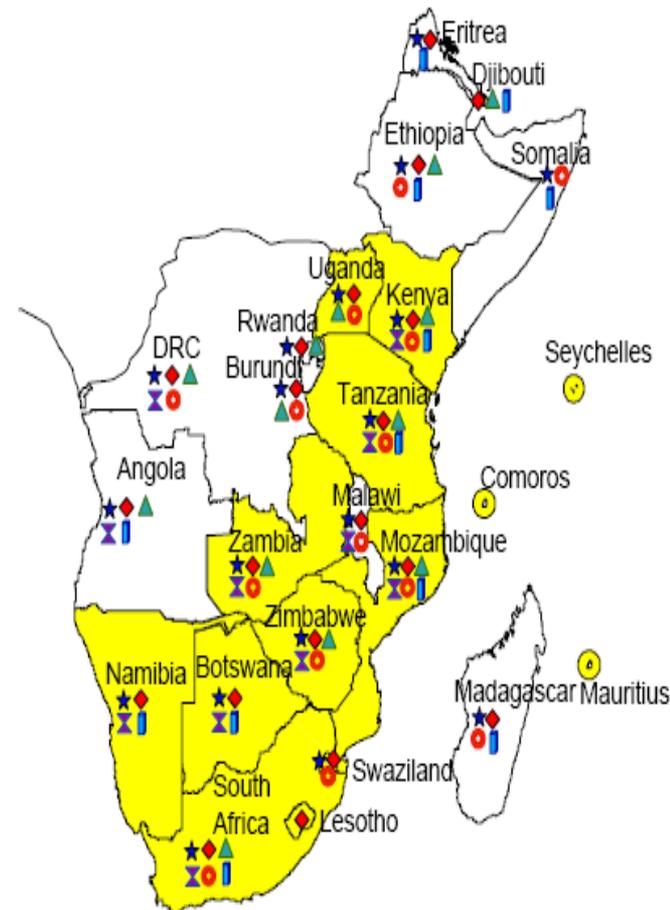
3. Technical and Trade Support

- i) Conducted an assessment of Industry capacity to fortify in the region
- ii) Conducted food Industry Mapping – production, consumption and trade (imports and exports) of staple foods
- iii) Policies and Legislation governing the Food Industry
- iv) Conducted an assessment in Tanzania on the capacity of oil and wheat flour to fortify
- v) Study on costs associated with food fortification in the region – salt, oil, wheat and maize flour.



KEY

- ★ Wheat Flour
- ◆ Maize Flour
- ▲ Palm Oil
- ✕ Sunflower Oil
- Sugar
- ▮ Salt



4. Advocacy, Coordination and Resource mobilization

- Advocacy for government support at high level ECSCA Forums (the HMC, AC and DJCC) and to Partners within the region – USAID-EA, UNICEF, GAIN, MI, ICCIDD, HKI and lately the World Bank and IMPPaCt/CDC
- Supported countries to form Public-Private Partnerships (NFFA) which oversee implementation of FF activities in the countries.
- Mobilization of financial and technical resources to support the Regional Initiative - Recruitment a food fortification advisor to facilitate regional collaboration and coordination
- Developed advocacy materials on food fortification – need review
- Website: www.ecsa.or.tz/rffn



5. Monitoring and Evaluation

- i) Developed monitoring tools for countries to report progress and performance of national programs
- ii) Trained on use of data obtained from regular household surveys (HIES or HBS) to estimate consumption of foods proposed for fortification in April 2009
- iii) Explore ways of modifying data collection tools to include questions that will assist in providing data to estimate potential benefit of food fortification.



Fortified foods in the region under the programme

| Country | Foods currently being fortified |
|---------------------------|---|
| Uganda | Edible oil, maize flour and wheat flour |
| Kenya Zimbabwe | Salt, edible oil, maize flour Salt, margarine (with vit.A and vit.D) |
| Tanzania | Salt |
| Zambia | Sugar |
| Malawi | Edible oil. (Maize flour and trials on sugar fortification successfully completed) |
| Lesotho | Wheat and maize flours. Also imports fortified salt and maize and wheat flours from SA |
| Swaziland | Importing fortified salt, maize flour and wheat flour from SA |



4. Process of Development of Regional Standards

1. Collection of secondary information to determine national availability and consumption of staple and other common foods
2. Held a meeting in Lilongwe, Malawi in April 2005 to develop harmonized guidelines on fortification levels using the available data and procedures provided in the FAO/WHO publication on “Guidelines for food fortification”
3. Guidelines presented to the 3rd Regional Workshop in September 2005 and the Standards Group asked to refine and facilitate implementation at country level
4. Follow up meeting held in Arusha in 2007 to refine guidelines. Participants exposed to the “*formulator tool*” – a spreadsheet made up of excel pages that can be used to formulate an efficacious fortification program.



Data collection

- All countries provided data – different sources of data
- Data requested included:
 - Food production and availability
 - Food Consumption patterns
 - Expenditure — retail prices for salt, oil, sugar, maize flour and wheat flour
 - Country Standards and Regulations
- Used these data, following procedures in the WHO/FAO Guidelines on food fortification with micronutrients” to develop the 1st draft of standards – in Malawi in 2005 (Report available)



Review of draft standards – Arusha 2007

- Calculator Tool - Program is as a result of a joint initiative of the Micronutrient Unit of the Department of Nutrition for Health and Development of WHO and A2Z, the USAID Micronutrient and Child blindness Project
- Based on following principles:
 - Establishment of nutritional goals based on EAR to be provided to individual at 5th percentile
 - Avoiding that individuals at the 95th percentile of consumption have an intake above the Upper Tolerable Level (UL)
 - Price increase is compatible for keeping usual practice of production and trade.
- Major Outputs:
 - Fortification levels
 - Estimation of cost of programme
 - Formulations of premixes



Comparison – ECSA/WHO Flour Standard Wheat

| | ECSA | WHO |
|-----------|-------------|-------------------------|
| ■ Iron – | 40 | ■ 60 (fumerate) |
| ■ Folic – | 3.0 | ■ 2.6 |
| ■ B12 - | 0.015 | ■ 0.02 |
| ■ Zinc – | 30 | ■ 55 |
| ■ VA - | 2 | ■ 3 |
| ■ B-1 - | 9.2 | |
| ■ B-2 - | 5.2 | |
| ■ B-3 - | 50.0 | |
| ■ B-6 - | 6.0 | Consumption 75-149g/day |



ECSA/WHO Comparison (Cont'd)

Maize

ECSA

- Iron – 10
- Folic - 1.0
- B-12 - 0.005
- Zinc - 20
- VA - 0.5
- B-1 - 2.0
- B-2 - 2.5
- B-3 - 20

WHO

- 15 - (EDTA)
- 1.0 - 1.0
- 0.008
- 30
- 1.0

Consumption >300g/day

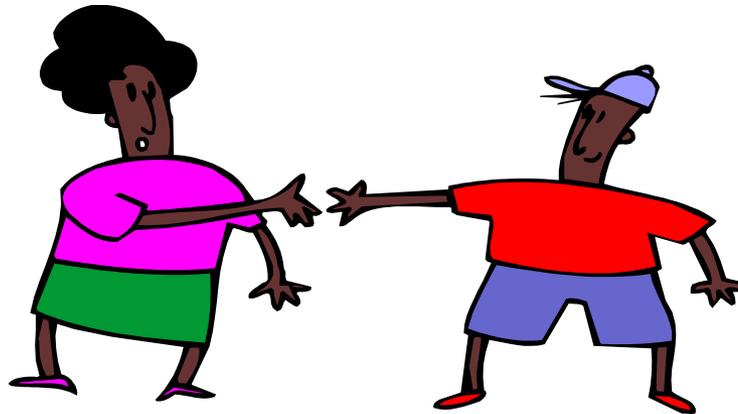


Conclusions and Next Steps

- i) ECSCA recognizes food fortification is science based and its design should be based on information on nutritional status of population; dietary patterns; and dietary intakes of micronutrients of interest
- ii) As regional harmonization takes place, its important to remember that there are variations both within and between countries
- iii) We know the deficiencies, but there is limited data on consumption patterns – but we can use data from HIES etc to estimate consumption levels and review programme.



Good Collaborations are necessary!



Thank you for your attention!!