FOOD FORTIFICATION INITIATIVE
REDESIGNING A MONITORING STRATEGY
BY

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26 November 2010

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Department:
Health
REPUBLIC OF SOUTH AFRICA

BACKGROUND

Mandatory fortification of all maize meal and white and brown flour came into effect 7 October 2003

- Guidelines non existent at the time
- Fortification levels, based on advice of scientist and organoleptic tests
- Fortification was not seen as an additional function, incorporated into existing staff responsibilities
- Whist there was a grant from Gain at the time, existing systems were used to facilitate the process and monitor the programme (EHP, local Laboratories, project manager an existing staff member)
- Built partnership with millers

CHALLENGES WITH RELYING ON EXISTING SYSTEMS

- Incorporated the monitoring aspect as one of the Key activities of the EHP at the time this was a logical option, but the situation changed over years.
- Relied on Government labs - (Many competing priorities such as the Sudan red without expanding the capacity of these labs.
- Early identification of challenges (Randall's study) Vitamin A stability.

ACTIONS TAKEN

- This lead to the amendment of regulations in 2008 to strengthen the compliance monitoring of fortification mixes.
- Research institutes also able to monitor outcomes- Reduction in prevalence of neural tube defects

Implementation challenges

- Some fortification mixes still do not comply in respect of vitamin A
- Iron bioavailability
- Low zinc levels
- Small millers not fortifying- Audit planned internally for early next year.

IMPACT

There is still a need to strengthen the programme

- 2005 National Food Consumption Survey has shown that vitamin A and iron deficiency have increased. Impact of fortification on other micronutrients also not known

Impact on Neural Tube Defects

Condition	Pre fortification		Post fortification		Percentage decline RR (95% CI)
	Cases	Rate/ 1000	Cases	Rate/ 1000	
Anencephaly	33	0.41	17	0.37	10.9% RR=0.89 (0.50 - 1.60)
Spina bifida	74	0.93	25	0.54	41.6% RR=0.58 (0.37 - 0.92)
Oro-facial clefts	33	0.41	18	0.39	5.7% RR=0.94 (0.53 - 1.68)

Opportunities

- *Increased awareness of the value of Fortification in improving nutrition security and its contribution to increasing life expectancy by Government.*
- *WHO guidelines*
- *Commitment of big millers*
- *Commitment of research institutes*
- *Commitment of SABS*
- *Use of other laboratories*
- *Gain's continued support in fortification is welcomed*

COMMUNICATION

- Formal communication campaigns were conducted in 2006, 2007 and 2008
- Communication continues -Incorporating fortification logo and message in booklets on maternal nutrition, infant feeding, HIV and AIDS, Food-based dietary Guidelines and any other nutrition messages.
- New advocacy drive will follow the improved programme-this will need resources

WAY FORWARD

a) Expansion of SABS audit system to millers **to strengthen monitoring**. The system will link premix supplies sold and industry production volumes.

b) Development of standards to strengthen compliance monitoring of milliers) **The Process has started**

c) Adding vit A stability trial as part of premix audit; including "screening vitamin A" analytical method,

d) Efficacy and sensory study on iron compounds; amending zinc levels;

Partners to achieve above: SABS, Millers, premix suppliers, DTI, NDOH, researchers, UNICEF,GAIN , MI and FFI, plus other relevant regional partners (technical and financial support)

Stakeholders meeting was held: A roadmap was developed. There is strong support from various partners, there is renewed support from DTI including capacity building of small millers.

Way Forward

- Appointment and training of provincial teams to conduct compliance monitoring
- Identification and costing of a suitable iron compound.
- Finalize the development of standards
- Small-scale survey to assess impact on other micronutrients and to assess KAB levels on fortification.
- Inclusion of Fortification indicators in the EHP data set at District level.


FORTIFIED FOR BETTER HEALTH

Micronutrient	Maize meal (per 200g raw)	Wheat flour (Per 200g raw)
Vitamin A	25%	25%
Thiamin	25%	25%
Riboflavin	17%	20%
Niacin	25%	25%
Vitamin B6	25%	25%
Folic acid	50%	50%
Iron	25% 12%(unsifted)	25%
Zinc	20%	20%

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