Food Fortification in Malawi

Micronutrient deficiencies represent a largely invisible but often devastating form of malnutrition. Known effects of micronutrient deficiencies include impaired physical and mental growth among children. In all its operations WFP endeavours to provide a nutritionally balanced food basket by including a variety of food commodities based on assessed nutritional needs and taking into account internationally recognised standards with regard to energy, protein and fat content, as well as availability of micronutrients. Food fortification is considered to be one of the most cost-effective approaches to addressing widespread micronutrient deficiencies.

The most common micronutrient deficiencies include:

> Vitamin A deficiency which causes blindness and increased susceptibility to measles and other infections.
> Iron deficiency which causes anaemia.
> Iodine deficiency which causes cretinism and goitre and impaired growth in children.
> In southern Africa it is feared that Pellagra, a serious nutritional condition related to a deficiency of niacin typical amongst populations whose diets are based heavily on maize, could become a problem if niacin fortification is not included in maize meal.

Micronutrient deficiencies affect the entire population across sex and gender groups. However vulnerability occurs in particular during times of increased physiological burden such as pregnancy, lactation, growth and illness. WFP is committed to alleviating nutritional deficiencies and decreasing childhood and maternal illnesses. WFP addresses micronutrient deficiencies through:

> Careful attention to micronutrient needs in ration planning;
> Programming donor supplied or internationally procured food;

Fortification Specifications for WFP Commodities

Maize Meal: Vitamins A, B complex, zinc, folic acid, niacin and iron;
Oils: Vitamins A and D;
Blended Food: Vitamins A, B12, C, thiamine, riboflavin, niacin, folate, iron, calcium and zinc;
Skimmed Milk Powder: Vitamins A and D; and
Salt: Iodine.

> Promotion and use of locally processed fortified foods; and
> Increasing advocacy for national and international policy-making levels.

In emergency situations, the delivery of fortified meals or flours may be the cost-effective way of preventing malnutrition and micronutrient deficiencies. In many such situations, micronutrient fortification of food is both curative and preventive in function.

Micronutrient fortification of all staple commodities will ensure a protective intake of micronutrients by all including those who are not aware of their HIV status. It slows down the progression of the disease and protects against opportunistic infections. WFP provides fortified foods to pregnant and lactating women and preschool children through supplementary feeding programmes.
Government’s Commitment

> The Malawi Government has rescinded taxes and duties on micronutrients and fortification equipment which shows its commitment.
> A National Food Fortification Alliance is in place which gives a recognised platform for further initiatives.
> In Malawi, salt fortification with iodine is mandatory. Fortification of cooking oil and maize meal is voluntary.
> Maize meal is fortified with vitamins A and B complex, iron, zinc and folic acid.
> The Ministry of Trade and Industry is working with the private sector to fortify sugar with vitamin A in Malawi.

Companies providing fortified foods for WFP in Malawi are:

Bakelines: High energy biscuits
Bakemans Confectioneries: High energy biscuits
Bakhresa Grain Milling: Maize Meals
Commodity Processors: Corn soya blend
Export Trading: Corn soya blend (Likuni Phala)
Farmers World: Salt
Rab Processors: Maize meal, corn soya blend
Universal Industries Limited: High energy biscuits

Factors to consider in national fortification programmes:

> Does a nutritional problem exist? If so, will fortification alleviate the problem? Are there any other viable options such as supplementation?
> Does the impact of HIV/AIDS necessitate the response capacity to fortify?
> Distribution.
> Impact on development.
> Existing processing and technology capacity.
> Volume, which will determine coverage for the vulnerable people and whether it will have any significant impact.
> Monitoring and enforcement.
> Legislation, tariffs and price controls.

Fortified Food: Corn soya blend porridge

> Losses and shelf life.
> Differing requirements.
> Adherence to international guidelines (Codex Alimentarius).
> National standards which can be comparable to other countries.
> Presence of a food inspection system.
> Consensus regarding voluntary or mandatory fortification initiatives.
> Impact of fortification on trade.
> Fortification as a cost and its impacts on procurement, processing and storage.
> Nature of the crop or food to be fortified, for example pulses are technically challenging to fortify.

Micronutrient fortification can be introduced in roller or hammer mills by batch or continuous systems and the choice of the system will depend on the output of the mill.

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