

The Food Fortification Formulator:

FREQUENTLY ASKED QUESTIONS

What is Food Fortification?

Food fortification is the practice of deliberately increasing the content of essential micronutrients in a food to improve the nutritional quality. Food fortification can deliver vitamins and minerals to large segments of the population without requiring changes in eating practice.

What is the Food Fortification Formulator?

The Food Fortification Formulator (FFF) is a tool that can be used to maximize health benefits and minimize potential risks of mass food fortification, as well as to plan program introduction estimating costs and parameters for control. The FFF spreadsheets can be used to:

- Help select suitable contents of micronutrients
- Estimate the potential nutritional benefit of micronutrients that are added to different food staples and condiments for different gender and age groups
- Calculate the appropriate micronutrient levels to support control and enforcement activities
- Estimate the cost per micronutrient, per metric ton of fortified food, and per person annually
- Design a micronutrient premix that satisfy the technical requirements

Currently, spreadsheets exist for fortifying eight foods:

- Refined Wheat Flour
- High Extraction Wheat Flour
- Maize Masa Flour
- Maize Flour (no germ)
- Whole Maize
- Sugar
- Salt
- Oil

Spreadsheets for rice and milk are being validated.

What is included in the FFF?

The FFF spreadsheets include dietary parameters for different gender and age groups, the price of commonly used fortificants (sources of micronutrients), and the usual stability of micronutrients during the processes of production, distribution and marketing. The fortification formulas can be adjusted to different consumption patterns and tailored to each country's specific conditions and needs. A guide ([*The Food Fortification Formulator: Technical Determination of Fortification Levels and Standards for Mass Fortification*](#)) provides a general overview of mass food fortification and its importance in public health, outlines the ten necessary steps in designing mass fortification programs, and provides instructions for using and interpreting the formulator.

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FREQUENTLY ASKED QUESTIONS (Continued)

Who can use the Food Fortification Formulator?

Various groups can use the FFF, including:

- *Food industries* interested in fortifying foods
- *Governmental institutions* interested in determining how fortification programs can improve public health
- *Researchers* who want to estimate possible additional intakes of micronutrient and program costs
- *International agencies* considering promoting and financing mass food fortification
- *Government officials* who want to enforce quality standards at factories and retail stores

Where is the FFF being used?

The Formulator is being used in countries of the Eastern, Central and Southern Africa Community (ECSA) to define guidelines for their member countries. For example, Kenya, Malawi and Zambia used the formulator to prepare their standards and regulations. Kenya also used the formulator to analyze the performance of a salt iodization program. The formulator was presented in Central and South America, where it was used to review the importance and current working conditions of wheat flour fortification and other programs.