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WORLD FLOUR DAY

World Flour Day 2022:

Celebrating Flour Fortification's Legacy

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At the Food Fortification Initiative (FFI), we are taking this World Flour Day to reflect on the millions of lives that you, the millers, have saved through food fortification. As the world finds itself entering a third year of the Covid-19 pandemic, we would like to focus on the good. When it comes to food fortification, good is not in short supply.

The large-scale fortification of staple foods, like wheat flour with vitamins and minerals, is a powerful and established food systems intervention with a proven track record of virtually eliminating debilitating vitamin and mineral deficiencies as a public health concern.

Fortification requires the participation of committed millers to adhere to national standards and legislation on fortification. Though governments, civic advocacy groups, and development

partners may start and strengthen fortification programs, millers add vitamin and mineral premix to flour and ensure flour is fortified to the needs and standards set by their country. Millers make fortification a reality.





A history of saving lives

Fortification, and millers' heroic role in fortifying foods, is not new. Starting over a century ago, fortification has a long history of improving health and virtually eliminating diseases like rickets, goiter, pellagra, and beriberi worldwide over the past 100 years.

According to legend, the first fortification of food was of wine; ancient Persian physicians prescribed sweet wine laced with iron filings for Jason and the Argonauts to strengthen the mythical sailors' resistance to spears and arrows during their quest for the Golden Fleece.

The first modern fortification program began in the 1920s in Switzerland, where salt fortification with iodine was introduced to prevent the consequences of iodine deficiency like goiter.

Wheat flour was the first cereal grain to be fortified; mandatory legislation was introduced in 1942 in the United States, and several countries quickly followed suit. From the early 1940s onwards, the fortification of cereal grain products with iron, thiamine, riboflavin, and niacin became common practice.

In many countries, cereal grain-based foods for young children were fortified with iron, a practice which has substantially reduced the risk of iron-deficiency anemia in children. This is because iron deficiency limits children's physical growth and mental development.

Fortifying flour with a bioavailable form of iron, that is, a form of iron that humans easily absorb, can improve iron levels and ultimately prevent many consequences of iron deficiency.

In more recent years, adding folic acid to fortified wheat flour has become widespread. At least 68 countries currently have mandatory wheat flour fortification with folic acid. Fortifying

with folic acid improves folate levels in women and reduces their children's risk of having brain and spinal defects called neural tube defects (NTDs).

Extensive data indicates that wheat flour fortification with folic acid has significantly decreased the prevalence of NTDs. The success of the intervention in the United States has led the Centers for Disease Control and Prevention to list mandatory folic acid fortification of cereal grain products as one of the ten great public health achievements between 2001 and 2010.

An estimated 65,380 birth defects of the brain and spine were prevented in 2019 due to flour being fortified with folic acid, an average of 179 healthier babies every day.

Fortification today

As of February 2022, 91 countries have mandates that require wheat flour, maize flour, and/or rice to be fortified with micronutrients. When FFI was founded in 2002, only 37 countries had this kind of legislation. FFI estimates that 54 percent of the cereal grain consumed globally is industrially milled. Yet, despite incredible progress, only 22 percent of that grain is fortified. The opportunity is to fortify all industrially milled cereal grain.

Established with a mission to encourage collaboration between the public, private, and civic sectors and build partnerships to advance fortification efforts, FFI's unique mission is to fill this gap.

The Covid-19 pandemic has changed our world and our work. It has also challenged recent gains in global nutrition. Fortification is a powerful tool that can help strengthen nutrition in vulnerable populations, including those that have been adversely impacted by the pandemic. Throughout this challenging time, millers and

other fortification stakeholders have heroically implemented and maintained food fortification programs, doing what they can to lessen the rise in malnutrition.

Though improving the diversity of diets to include more vitamins and minerals is ultimately the optimum strategy to reduce micronutrient malnutrition, food fortification is an immediate, doable nutrition intervention while countries work long-term to improve dietary diversity.

Reducing micronutrient deficiencies not only prevents anemia, NTDs, and other health consequences, it has also been shown to improve a country's economic productivity, reduce healthcare expenditures, and build food security.

Millers: heroes with a lasting legacy

Fortifying wheat flour with micronutrients seems like a no-brainer. But sometimes public health policy makers focus on other issues, and they do not prioritise nutrition programs, such as fortification. In order to move fortification forward in spite of these obstacles, countries can form national alliances that include the public, private and civic sectors. In fact, the main predictors of a program's success are governmental and—crucially—milling industry support.

FFI celebrates its twentieth birthday in October 2022. As we reflect on the past 20 years of helping countries plan, implement, and monitor fortification programs, it is clear fortification's global progress would not be possible without millers' commitment to health.

With millers' support, we can make fortification of cereal grains the industry norm. By engaging public, private and civic champions, we can build a smarter, stronger and healthier future.