

FOOD FORTIFICATION INITIATIVE

The Food Fortification Initiative (FFI) champions effective grain fortification so people have the nutrition they need to be smarter, stronger, and healthier.

HOW WE WORK

We help country leaders **plan, implement, and monitor** sustainable, country-led fortification programs. The only global group that focuses exclusively on the world's most commonly consumed grains--industrially milled **wheat flour, maize flour, and rice**--our data-driven approach effectuates large-scale change by engaging public, private, and civic stakeholders. FFI is also the only organization that tracks country and global progress in grain fortification. Established in 2002, FFI is based at Emory University's Rollins School of Public Health.



Photo: USAID/Cambodia HARVEST

WHY WE WORK

More than a third of the world's population does not get enough of the essential vitamins and minerals, or micronutrients, that help build a healthy and productive life. Micronutrient deficiencies stunt growth and learning, weaken immune systems, and disproportionately affect the world's most vulnerable women and children. Fortifying foods with micronutrients like iron and folic acid is a proven, cost-effective strategy to prevent micronutrient deficiencies and their severe health consequences.



1.2 billion

women of childbearing age have at least one micronutrient deficiency¹

These women face a greater risk for maternal death, anemia, and other health consequences. Anemia is often caused by deficiencies of micronutrients including iron and zinc. Pregnant women with severe anemia are twice as likely to die during or shortly after pregnancy than non-anemic women.



204,000

babies are born with a folic acid-preventable NTD each year²

Birth defects of the brain and spine called neural tube defects (NTDs) can be debilitating and are often fatal. NTDs can be prevented when women of childbearing age consume adequate amounts of folate or its synthetic form, folic acid, before and after conception.



372 million

preschool-aged children have at least one micronutrient deficiency¹

Micronutrient deficiencies during childhood, and particularly during early childhood, can have lasting harmful health effects such as stunted cognitive and physical development, permanent blindness, and a weakened immune system. Each year, at least 1 million children die as a result of health effects linked to micronutrient deficiencies.

FORTIFICATION FOR IMPACT

Reducing micronutrient deficiencies improves a country's economic productivity, reduces healthcare expenditures, and builds food security. Furthermore, fortification can restore to diets the nutrients lost in crops as a result of climate change. FFI's work addresses United Nations Sustainable Development Goals 1-5, 8, 10, 11, and 17.

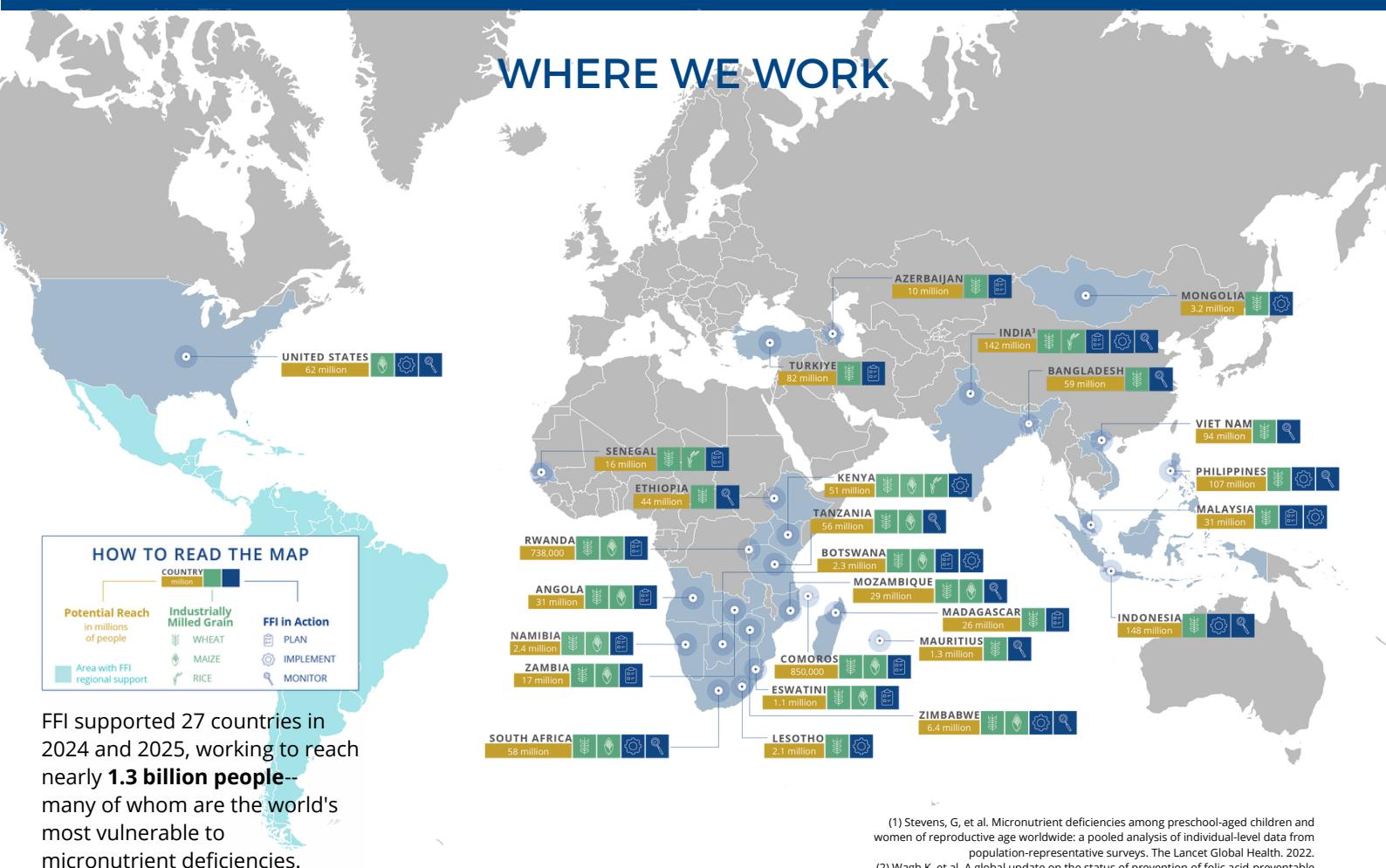


THE OPPORTUNITY

According to FFI estimates, only 24% of industrially milled cereal grain was fortified in 2024. This gap represents a tremendous opportunity for fortification to improve the lives of millions.

Top economists have declared fortification to be one of the most cost-effective development investments that exist today; for every \$1 USD spent on fortification, there is a \$27 USD return. And, when implemented and monitored well, fortification has the power to make large-scale impact on lives. An estimated 24% of folic acid-preventable spina bifida and anencephaly, 63,520 NTDs, were prevented globally in 2022--an average of 174 a day--in countries where flour was fortified with folic acid.²

Fortification of flour with folic acid prevents birth defects for an average of 174 babies a day globally.



(1) Stevens, G, et al. Micronutrient deficiencies among preschool-aged children and women of reproductive age worldwide: a pooled analysis of individual-level data from population-representative surveys. *The Lancet Global Health*. 2022.

(2) Wagh K, et al. A global update on the status of prevention of folic acid-preventable spina bifida and anencephaly in year 2022. *Birth Defects Res*. 2024