



ADVOCACY BRIEF

# New Global Estimates for Hidden Hunger

ACTION NEEDED TO ADDRESS ALARMING MICRONUTRIENT DEFICIENCY LEVELS WORLDWIDE

## SUMMARY

- Micronutrient deficiencies can have serious health and economic consequences; they increase the risk for infectious diseases, compromise child growth and development, and reduce educational outcomes and work productivity thus limiting human potential worldwide.
- A new article in *The Lancet Global Health* estimates that 1 in 2 preschool-aged children and 2 in 3 women of reproductive age worldwide have at least one micronutrient deficiency.
- Micronutrient deficiencies are most prevalent in South Asia and Sub-Saharan Africa, but there is surprisingly high prevalence even in high-income countries.
- Coordinated actions and investments are needed to scale up cost-effective micronutrient interventions and transform food systems to improve access to nutrient rich diets to support population health and resilience in light of rising global food insecurity and climate shocks.

## RECOMMENDED ACTIONS

- Increase actions and investments to:
  - » Transform food systems to better deliver nutrient rich diets.
  - » Scale up food fortification and biofortification efforts.
  - » Scale up micronutrient supplementation programs targeting young children and women of reproductive age.
- Increase coordination with diverse stakeholders to promote access to and affordability of healthy diets and the prioritization of nutrition across food, health, agriculture, and social protection systems.
- Strengthen micronutrient data collection and systems to ensure reliable data across all population subgroups to guide programs and monitor and track progress.



**1 in 2** PRESCHOOL-AGED CHILDREN



**2 in 3** WOMEN OF REPRODUCTIVE AGE

Are affected by at least one micronutrient deficiency



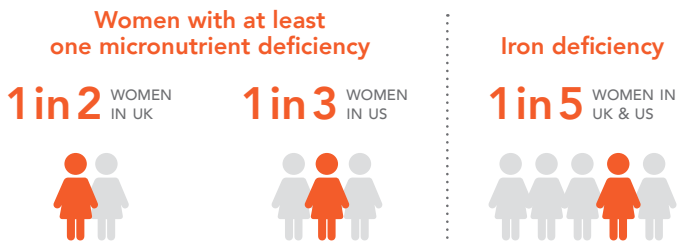
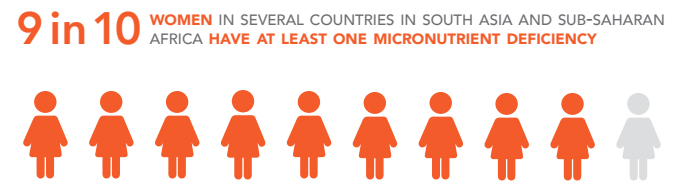
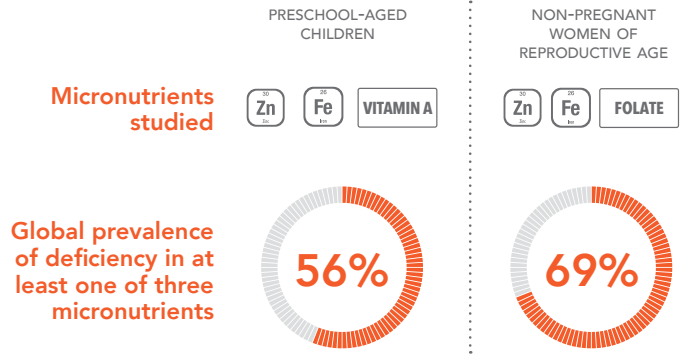
Coordinated actions and investments are needed

**NEW DATA**

# Billions Worldwide Affected by Micronutrient Deficiencies

A new article in *The Lancet Global Health* entitled “Micronutrient deficiencies among preschool-aged children and women of reproductive age worldwide,” was a collaborative project led by the Global Alliance for Improved Nutrition (GAIN), through the USAID Advancing Nutrition project, along with a team of global micronutrient experts, including an Advisory Panel brought together by the Micronutrient Forum. The study assessed the prevalence of deficiency in at least one of three micronutrients for preschool-aged children (iron, zinc, vitamin A) and for non-pregnant women of reproductive age (iron, zinc, folate).

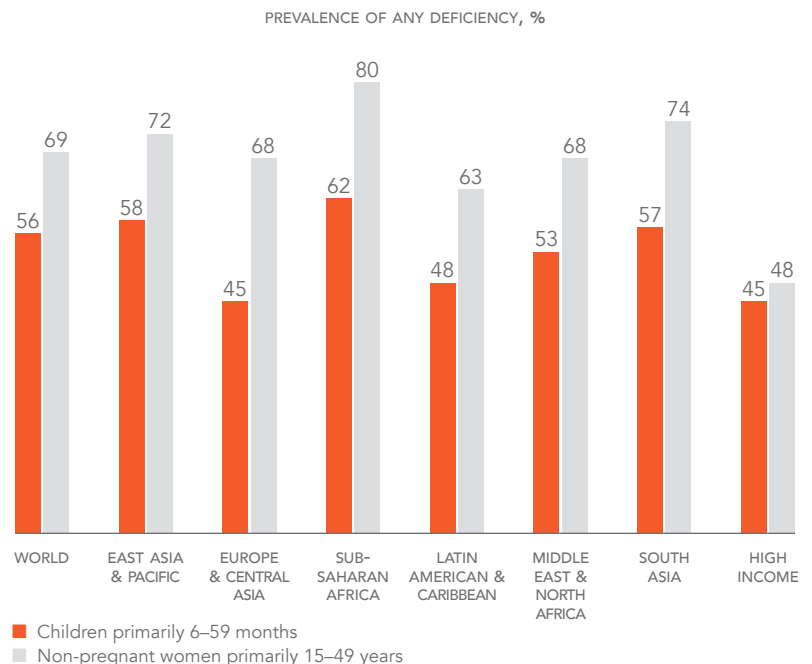
- The global burden of deficiency in at least one of three micronutrients is 56% for preschool-aged children and 69% for women of reproductive age.
- The estimates per economic strata and geographic region showed high levels of micronutrient deficiencies, particularly in South Asia and Sub-Saharan Africa but also in countries of all income levels.
- Nine in 10 women in several countries in South Asia and Sub-Saharan Africa have at least one micronutrient deficiency.
- Even high-income countries have high levels of micronutrient deficiencies—1 in 2 women (UK) and 1 in 3 (US) have at least one deficiency. Iron deficiency alone is prevalent among 1 in 5 women in both countries.



*The Lancet Global Health* article is the first evidence-based global estimation of micronutrient deficiencies that systematically analyzed data on population-representative surveys from preschool-aged children and women of reproductive age. This new analysis suggests that the widely cited figure of 2 billion people globally suffering from micronutrient deficiencies is a major underestimate.

The new estimate had to exclude prevalence of deficiency in school-aged children, adolescents, men, and older adults due to data gaps. This highlights the urgent need for more and better data on malnutrition across all population groups. Data must be collected using transparent, reproducible methods so that trends can be tracked over time.

**Prevalence of deficiencies in one or more of three core micronutrients, world and different regions (2003–2019)**



## MICRONUTRIENTS

# Foundational for Good Health and Prosperity

Micronutrient deficiencies can have serious and sometimes irreversible consequences that affect immune systems, making people more vulnerable to infectious diseases, which can cost the lives of children and other vulnerable population groups. They also increase the risk for non-communicable diseases like

diabetes and heart problems. Micronutrient deficiencies impair brain development, impacting cognition and school performance and eventually work productivity. These human and economic costs affect countries at all development levels.



BRAIN DEVELOPMENT



PHYSICAL GROWTH



IMMUNE FUNCTION



PHYSICAL ACTIVITY



BONE, SKIN, AND EYE HEALTH



HUMAN POTENTIAL

## URGENT NEED FOR ACTIONS

# Transform Food Systems and Scale-up Micronutrient Interventions

Evidence-based and cost-effective micronutrient interventions like food fortification, biofortification, and supplementation programs are readily available, cost effective, and scalable. These interventions are proven to improve child survival and growth, protect against cognitive impairments and birth defects, and enhance health and productivity for all.

New and innovative actions to transform food systems are necessary to ensure access to nutritious, safe, affordable, and sustainable diets that are micronutrient rich, particularly for women and young children globally.

This includes efforts to improve the affordability of micronutrient dense foods, such as animal source foods, dark green leafy vegetables, and pulses (beans, peas, lentils), particularly in food-insecure populations.

Intensifying global challenges, including food crises and climate change, will escalate the prevalence of the micronutrient deficiencies reported in *The Lancet Global Health* article across all populations worldwide.



**Food fortification** adds essential vitamins and minerals to widely consumed foods, including cereal flours, rice, cooking oil, salt, and other condiments.



**Biofortification** increases the micronutrient content of staple crops such as wheat, rice, beans, and maize through natural breeding of crops while optimizing yield and climate resilience.



**Supplementation** targeting pregnant women and young children provides supplemental doses of vitamin A, iron, folic acid, and multiple micronutrient supplements, which are important during life stages when physiological needs are particularly high such as during childhood and gestation.

We call for a [new global mobilization across all sectors](#)—including donors, researchers, policymakers, program implementors, private sector, and civil society—working in partnership to address and prevent micronutrient deficiencies worldwide. Micronutrient deficiencies compromise immune systems, burden health systems, and limit human potential worldwide. As a global community we cannot afford for the next generation to grow up without access to the nutrients they need to develop and thrive.