

OUTLINE

- · Micronutrient deficiencies or Hidden Hunger
- Global prevalence and health impact of micronutrient deficiencies
- · Solutions to overcome micronutrient deficiencies

Micronutrient.org face

@mic book.co

· Health impact of agronomic bio-fortification

Key messages

- An estimated 2 billion people are micronutrient deficient, known as 'hidden hunger'
- Young children and women of reproductive age in developing countries are the hardest hit.
- Even mild to moderate deficiencies of micronutrients have detrimental effects on human health and productivity.
- Deficiencies of iron, zinc, vitamin A, iodine and folic acid have the biggest health impact.
- Different strategies to combat Hidden Hunger should be combined and are all important: supplementation, fortification, biofortification and dietary diversity
- Agronomic and genetic bio-fortification can improve intakes of essential minerals (iron, zinc, and and others) and have potential to impact associated health outcomes. This has been demonstrated for some micronutrients for genetic bio-fortification (breeding) not yet for agronomic biofortification

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An estimated 2 billion people are micronutrient deficie (2013)					
	Vitamin A deficiency Children <5 years Serum retinol <0.70 µmol/L	lodine deficiency (UIC <100 µg/L)	Zinc deficiency (weighted average of country means)	Iron deficiency anaemia (haemoglobin <110 g/L)	
				Children <5 years	Pregnant women
Global	33.3%	28.5%	17.3%	18.1%	19.2%
Africa	41.6%	40.0%	23.9%	20.2%	20.3%
Americas and the Caribbean	15.6%	13.7%	9.6%	12.7%	15.2%
Asia	33.5%	31.6%	19.4%	19.0%	19.8%
Europe	14.9%	44.2%	7.6%	12.1%	16.2%



Micronutrient www.micronutrient.or Why micronutrients matter...

IODINE

- Fundamental for the intelligence of the next generation
- 13 point increase in I.Q.; each year 18M babies are born mentally impaired because of maternal iodine deficiency



IRON

- Essential for maternal and fetal health, learning, and productivity
 20% reduction in maternal
- mortality; each year 136,000 women and children die because of iron deficiency anaemia































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