



PROMOTING AND ASSISTING EFFORTS TO REDUCE GLOBAL ZINC DEFICIENCY

WHY ZINC?

Zinc is Important for Public Health



Zinc is an essential nutrient for human health.



At least 17% of the world's population is at risk of inadequate zinc intake, making zinc deficiency one of the most prevalent micronutrient deficiencies worldwide (1).



In 2011, approximately 116,000 deaths among children under five years of age were attributable to zinc deficiency (2), not including possible deaths due to preterm births in zinc-depleted mothers.



Preventive zinc supplementation can reduce the incidence of child diarrhea and pneumonia by 13% (3, 4), mortality in children >12 months of age by 18% (5), and improve linear growth (3). Zinc supplementation during pregnancy can reduce the risk of preterm birth by 14% (6).



Zinc as part of the treatment of diarrhea reduces diarrhea mortality by 23% (7) and is a WHO Essential Nutrition Action for improving maternal, newborn, infant and young child health and nutrition.



Zinc supplementation is a cost-effective intervention (8).

IZiNCG's primary objectives are to promote and assist efforts to reduce global zinc deficiency through interpretation of nutrition science, dissemination of information, and provision of technical assistance to national governments and international agencies.

IZiNCG focuses on identification, prevention and treatment of zinc deficiency in the most vulnerable populations in low-income countries: infants, young children, and pregnant and lactating women because of their elevated requirements for this essential nutrient.

IZiNCG WORKS TO:

- ▶ Use expertise to translate zinc research into useful resources and recommendations for best program and policy practice.
- ▶ Fill evidence gaps, big and small, for effective zinc interventions by conducting applied research.
- ▶ Create effective partnerships for improving zinc nutrition — zinc deficiency is unlikely to occur in isolation of other nutritional deficiencies and health problems.
- ▶ Provide technical assistance to organizations and governments.
- ▶ Advocate for the inclusion of zinc assessment in national surveys.

Invest in Data



There is an urgent need for more and better data on the zinc status of vulnerable populations to effectively target and monitor zinc intervention programs.

The Biomarkers of Nutrition for Development Zinc Expert Panel recommends three measures for estimating zinc status (9):

- dietary zinc intake;
- plasma or serum zinc concentration;
- height-for-age of growing infants and children.

If a population is considered at high-risk of zinc deficiency based on inadequacy of zinc in the food supply or a high prevalence of child stunting, IZiNCG recommends that plasma or serum zinc concentration be measured in vulnerable groups.

STRATEGIES FOR ELIMINATING ZINC DEFICIENCY

The combination of strategies will depend on the level of risk of zinc deficiency, whether an approach that reaches the entire population or a specific subgroup is warranted, and in-country resources, infrastructure and technology available to deliver and sustain the intervention (10).



Dietary Diversification & Modification

- Promoting dietary diversity to ensure adequate zinc intake and absorption. This includes both increasing the availability of animal-source foods, and processing technologies to improve zinc absorption in staple foods (11).
- Exclusive breastfeeding during the first six months of life - breast milk is an excellent source of bioavailable zinc (12).
- From six months onward, improved complementary feeding practices with zinc-rich foods, along with continued breastfeeding (11, 12).



Fortification

- Fortification of a staple food with zinc is economical, safe and increases zinc absorption (13). Available evidence suggests it is an effective strategy for improving zinc nutrition (14).
- Currently, 26 countries globally have standards for mandatory zinc fortification of wheat flour, maize flour, or rice (15).
- Several zinc-biofortified varieties of rice and wheat are now available or being tested. Trials with zinc wheat have demonstrated an increase in zinc intake, and reduced child morbidity (16).



Supplementation

- Preventive zinc supplementation is both safe and efficacious and is a way of ensuring adequate zinc status of vulnerable groups (5).
- Zinc is being delivered as part of micronutrient powders (MNP) in large-scale programs, but evidence of the efficacy of MNPs on key zinc outcomes is limited (17).
- As part of global efforts to continuously enhance the impact of zinc programs, IZiNCG is undertaking research to investigate different doses, modes, and frequency of preventive zinc supplementation in young children (18), and plans to evaluate different platforms for delivering zinc as part of a community-based child health program.

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OUR VISION

IZiNCG sees a world in which no child suffers from infectious disease, stunting, premature death, or other adverse conditions because of zinc deficiency.

OUR MISSION

IZiNCG aims to provide leadership by advocating and supporting well-designed and effective zinc nutrition interventions at scale for children and women, based on sound technical guidance and best practices. IZiNCG aims to pool together the talents and experience of the world's leaders in zinc nutrition and become a global resource for the best science, strategic thinking, and policy recommendations to control zinc deficiency.

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