

THE THREAT OF COVID-19 ON IRON DEFICIENCY ANAEMIA RATES IN AFRICA, ASIA AND SOUTH AMERICA

Iron deficiency is the leading cause of anaemia worldwide¹. Iron Deficiency Anaemia (IDA) the type of anaemia caused by iron deficiency is a huge problem globally, affecting²:



billion people



24.8% total population



Worldwide, the highest prevalence is in pre-school aged children where:



47.4% are anemic



The Global Burden of Disease project estimates that IDA causes more disability than all other micronutrient deficiencies combined resulting in 35 million years lived with disability around the world each year 4



Africa, Asia and South America tend to be the most affected continents with the highest rates of IDA for infants and young children⁵:

THAILAND

28.3%²

INDONESIA

36.8%²

AFRICA

38.0%⁶ **INDIA**

57.3%²

MALAYSIA

38.1%²

ARGENTINA

52.6%⁷

BRAZIL

58.1%⁸

This issue is high on the World Health Organisation (WHO) agenda who are committed to achieving⁹:



50% reduction of anemia in women of reproductive age by 2025



40% reduction in the number of children under-5 who are stunted by 2025

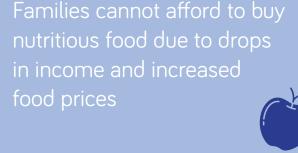
Despite progress made towards meeting this commitment, the current COVID-19 pandemic is threatening to make an already dangerous situation worse as many families struggle to feed their children. This is likely to have a knock-on effect on IDA rates in infants due to 10:

FOOD DISRUPTION AND SHORTAGES



Making it difficult for families and breastfeeding mothers to maintain an adequate, iron-rich diet

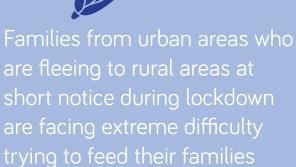
INCOME SHOCKS **& INCREASES** IN THE COST OF **NUTRITIOUS FOOD**





DISPLACEMENT

DESTITUTION &



Iron is a vital nutrient essential for growth and development and is particularly important in the early years when young children have higher nutrient requirements than adults and are laying down critical brain and neural tissues. Early years infants typically require¹¹:











IDA can cause health problems for young children, including 12,13:



cognitive development

Impaired physical &



Poor immune function





Fatigue & lethargy



Increased child mortality

child, including: CURRENT STRATEGIES¹⁴⁻¹⁸ POST-PANDEMIC STRATEGIES^{14,1}

Alleviating the impact of COVID-19 – now and post-pandemic - on child nutrition & IDA rates

can be achieved through a combination of practical strategies which support the mother and





receive their usual ante-natal care including iron and folic acid Altered eating patterns to

Ensuring that pregnant mothers



increase iron bioavailability and absorption



Supporting all breastfeeding mothers



Consuming foods and milks

fortified with iron



increased consumption of iron-rich foods Enhance the uptake of modern

Higher accessibility to and



nutrient content (e.g iron-rich beans and millets) Promote the better

biofortified crops bred for high



understanding of the importance of nutrient-dense and varied diets – especially for infants and young children

https://www.who.int/health-topics/anaemia#tab=tab_1

 $https://www.who.int/vmnis/anaemia/prevalence/summary/anaemia_data_status_t2/en/\#: \sim: text=Globally \%2C\%20 anaemia\%20 affects \%201.62\%20 billion, CI\%3A\%2022.9\%E2\%80\%9326.7\%25)$ https://www.who.int/vmnis/anaemia/prevalence/summary/anaemia_data_status_t2/en/#:~:text=Globally%2C%20anaemia%20affects%201.62%20billion,CI%3A%2022.9%E2%80%9326.7%25)

GBD-2016-Disease-and-Injury-Incidence-and-Prevalence-Collaborators Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries,

https://www.who.int/nutgrowthdb/jme_brochoure2017.pdf Ministry of Health, National Nutrition and Health Survey, 2007, Argentina Carvalho, A. G. C., et al. (2010). Diagnosis of iron deficiency anemia in children of Northeast Brazil. Revista de Saúde Pública, 44(3), 513-519. doi:10.1590/s0034-89102010000300015

Source of data (% of anemia) for all countries: World Bank (2016)

8. https://www.who.int/nutrition/global-target-2025/en/ $10. \quad https://www.unicef.org/media/68281/file/IYCF-Programming-COVID19-Brief.pdf\\$ 11. EFSA. Dietary Reference Values for nutrients. EFSASupporting publication 2017:e15121 Chamley CA. Developmental Anatomy and Physiology of Children: A Practical Approach. London: Elsevier, 2005

 $1990-2016: A systematic analysis for the Global Burden of Disease Study 2016. Lancet. 2017; \\ 390:1211-1259. \\ doi: 10.1016/S0140-6736(17)32154-2016. \\ Lancet. 2017; \\ 390:1211-1259. \\ Lancet. 2017;$

12. https://www.nhlbi.nih.gov/health-topics/iron-deficiency-anemia 13. Hassan et al. Impact of iron deficiency anemia on the function of the immune system in children Medicine (2016) 95:47 https://www.who.int/health-topics/anaemia#tab=tab_3 14.

Verger et al. Evaluation of a Nutrient-Based Diet Quality Index in UK Young Children and Investigation Into the Diet Quality of Consumers of Formula and Infant Foods Public Health Nutr. 2016 16. Lovell, A.L., et al. 2018. Compared with Cow Milk, a Growing-Up Milk Increases Vitamin D and Iron Status in Healthy Children at 2 Years of Age: The Growing-Up Milk-Lite (GUMLi) Randomized Controlled

Trial. The Journal of Nutrition 148, 1570–1579 Akkermans et al., 2017. A micronutrient-fortified young-child formula improves the iron and vitamin D status of healthy young European children: a randomized, double-blind controlled trial. The American Journal of Clinical Nutrition 105, 391-399

Gera et al. Effect of iron-fortified foods on hematologic and biological outcomes: systematic review of randomized controlled trials. Am J Clin Nutr 2012;96:309-24 https://www.harvestplus.org

