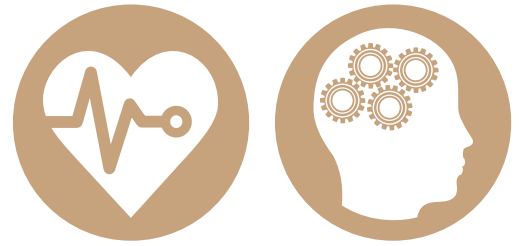
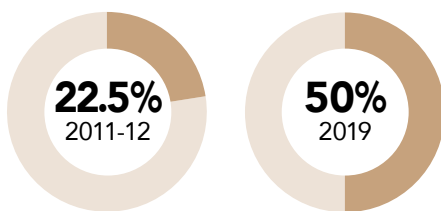


# How large-scale food fortification will define Bangladesh's future

Micronutrient deficiencies are a public health challenge in Bangladesh. Many children, women, and vulnerable populations are not getting the nutrients they need for proper brain development, immunity, and physical and mental health.



## A Vitamin A deficiencies are severe and deadly



In 2019, the National Micronutrient Deficiency Survey in Bangladesh found that **50%** of children under 5 – suffered from vitamin A deficiency.<sup>1</sup> This is a rise from **20.5%** of children under 5 with vitamin A deficiency in 2011-2012.<sup>2</sup>

Vitamin A deficiency, which suppresses the **immune system** and increases the risk of respiratory and diarrhoeal infections, contributes to stunted growth, and can reduce the likelihood of survival from serious illness. Vitamin A deficiency is also a contributor to maternal mortality and other poor outcomes of pregnancy.



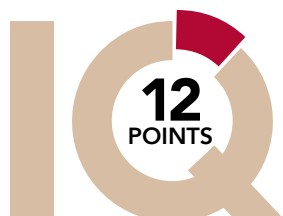
About **2%** of all deaths among under-five children in Bangladesh are attributable to vitamin A deficiency.<sup>3</sup>

## I Iodine deficiency can cause major impacts on cognition and intelligence



Iodine deficiency was found in approximately one in five children under 5 years of age and in nearly **30%** of women of reproductive age.

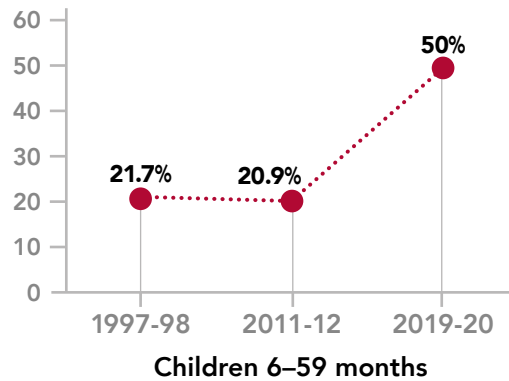
Iodine deficiency can cause **thyroid issues**, such as goiter and can cause severe intellectual disability in newborns and children.



Children born to iodine deficient mothers suffer an average **12-point** reduction in IQ.<sup>4</sup>

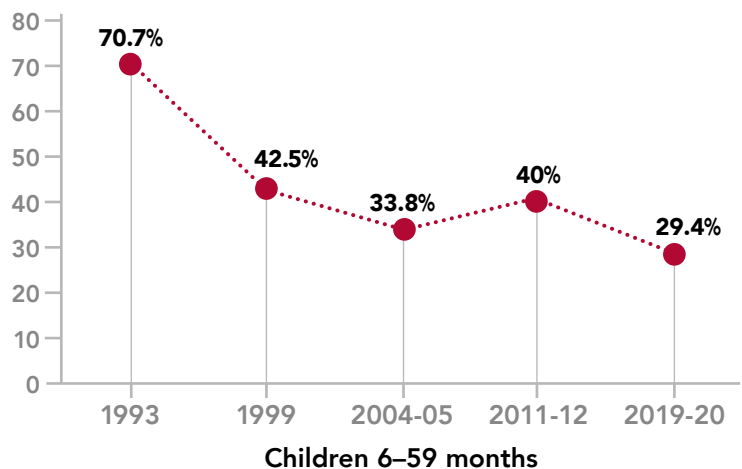
**A**

**Vitamin A deficiency is alarmingly high and trending upwards for Bangladeshi children**



**I**

**Progress in iodine deficiency is a fortification success story for Bangladesh, but nearly ¼ of Bangladeshi children are still impacted – improved fortification quality will help to get the job done**



**Micronutrient deficiencies are costing the Bangladesh economy millions of dollars every day**

The World Bank estimates Bangladesh loses over **US\$700 million** in GDP to vitamin and mineral deficiencies. These losses come from multiple sources, including lost productivity, early death, illness, reduced capacity, and resources diverted to healthcare.



Together with diversified diets, **large scale food fortification** has the potential to make a significant impact on micronutrient deficiency in Bangladesh. By ensuring that vitamins and minerals are added to staple foods, in line with the mandated national standards, fortified food producers have the power to transform the health of the nation.



- 1 National Micronutrient Survey in Bangladesh 2019-2020 icddr,b, NI, GAIN, Institute of Public Health Nutrition
- 2 International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR,B), Global Alliance for Improved Nutrition (GAIN), The United Nations Children’s Fund (UNICEF) (2013) The National Micronutrients Status Survey 2011–12. Dhaka, Bangladesh: International Centre for Diarrhoeal Diseases Research, Bangladesh.
- 3 Stevens GA, Bennett JE, Hennocq Q, Lu Y, Rogers L, Li G, et al. Trends and mortality effects of vitamin a deficiency in children in 138 low-income and middle-income countries between 1991 and 2013: a pooled analysis of population-based surveys. Lancet Glob Health. 2015;3(9):528–36 [https://doi.org/10.1016/S2214-109X\(15\)00039-X](https://doi.org/10.1016/S2214-109X(15)00039-X)
- 4 <https://pubmed.ncbi.nlm.nih.gov/15734706/>
- 5 Ahmed F, Prendiville N, Narayan A. Micronutrient deficiencies among children and women in Bangladesh: progress and challenges. J Nutr Sci. 2017;5:e46. Published 2017 Jan 3. doi:10.1017/jns.2016.39
- 6 <https://documents1.worldbank.org/curated/en/994581468200681224/pdf/772170BRI0Box00angladesh0april02011.pdf>

