



## Country Context

**HDI ranking:** 134th out of 182 countries<sup>1</sup>

**Life expectancy:** 64 years<sup>2</sup>

**Lifetime risk of maternal death:** 1 in 70<sup>2</sup>

**Under-five mortality rate:** 69 per 1,000 live births<sup>2</sup>

**Global ranking of stunting prevalence:** 11th highest out of 136 countries<sup>2</sup>

## Technical Notes

**Stunting** is low height for age.

**Underweight** is low weight for age.

**Wasting** is low weight for height.

Current stunting, underweight, and wasting estimates are based on comparison of the most recent survey data with the WHO Child Growth Standards, released in 2006. They are not directly comparable to the trend data shown in Figure 1, which are calculated according to the previously-used NCHS/WHO reference population.

**Low birth weight** is a birth weight less than 2500g.

The methodology for calculating nationwide costs of vitamin and mineral deficiencies, and interventions included in the cost of scaling up, can be found at: [www.worldbank.org/nutrition/profiles](http://www.worldbank.org/nutrition/profiles)

## The Costs of Undernutrition

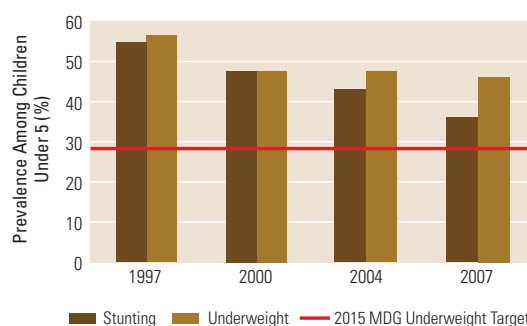
- Over one-third of child deaths are due to undernutrition, mostly from increased severity of disease.<sup>2</sup>
- Children who are undernourished between conception and age two are at high risk for impaired cognitive development, which adversely affects the country's productivity and development.
- The economic costs of undernutrition include direct costs such as the increased burden on the health care system, and indirect costs of lost productivity.
- Childhood anemia alone is associated with a 2.5% drop in adult wages.<sup>5</sup>

## Where Does India Stand?

- 48% of children under the age of five are stunted, 43% are underweight, and 20% are wasted.<sup>2</sup>
- More than 1 in 4 infants are born with a low birth weight.<sup>2</sup>

As shown in **Figure 1**, although the overall prevalence of stunting and underweight has been decreasing over the past two decades, India will not meet MDG 1c (halving 1990 rates of child underweight by 2015) with business as usual.<sup>6</sup>

**FIGURE 1 India's Progress Toward MDG 1 is Insufficient**



Source: WHO Global Database on Child Growth and Malnutrition using data from NFHS (figures based on the NCHS/WHO reference population)

As seen in **Figure 2**, India has higher stunting rates than some of its South Asian neighbors including those with lower income. India also has higher stunting rates than other poorer nations.

**Most of the irreversible damage due to malnutrition in India happens during gestation and in the first 24 months of life<sup>6</sup>**

Annually, India loses over US\$12 billion in GDP to vitamin and mineral deficiencies.<sup>3,4</sup> Scaling up core micronutrient interventions would cost less than US\$574 million per year.

(See *Technical Notes* for more information.)

## Key Actions to Address Malnutrition:

### Promote Appropriate Infant and Young Child Feeding and Caring Practices:

- Initiation of breastfeeding within one hour of birth
- Exclusive breastfeeding for six months
- Introduction of complementary foods at six months
- Age-appropriate, adequate complementary feeding (quality, quantity, and frequency) for children 6–24 months
- Frequent, appropriate, and active feeding of children during and after illness
- Safe handling of complementary foods and hand washing

### Scale-up Micronutrient Interventions:

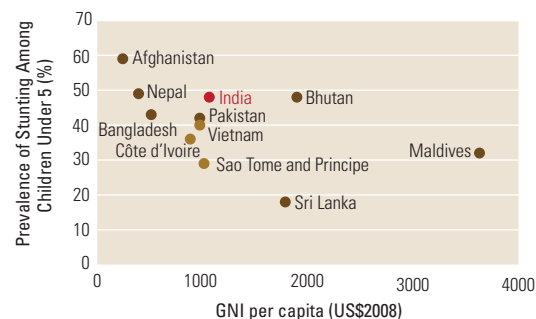
- Vitamin A supplementation; deworming; zinc supplementation during diarrhea for children
- Iron-folic acid supplementation for pregnant and nursing mothers; weekly doses for adolescent girls
- Universal regular consumption of iodized salt
- Food fortification with iron

### Improve Maternal Nutrition:

Promote adequate nutrient intake for pregnant, nursing mothers and adolescent girls including iron-folic acid supplementation

**Provide timely, quality therapeutic feeding and care for all children with severe acute malnutrition.**

**FIGURE 2 India has Higher Rates of Stunting than many Neighbors and Income Peers**



Source: Stunting rates were obtained from the WHO Global Database on Child Growth and Malnutrition. GNI data were obtained from the World Bank's World Development Indicators.

## Poor Infant Feeding Practices

- 1 in 4 newborns receive breast milk within one hour of birth.<sup>2</sup>
- Fewer than half (46%) of infants under six months are exclusively breastfed.<sup>2</sup>
- During the important transition period to a mix of breast milk and solid foods between six and nine months of age, just under half of infants (43%) are not fed appropriately with both breast milk and other foods.<sup>2</sup>

**Solution:** Support women and their families to practice optimal breastfeeding and ensure timely and adequate complementary feeding. Breast milk fulfills all nutritional needs of infants up to six months of age, boosts their immunity, and reduces exposure to infections.

## High Disease Burden

- 1 in 5 child deaths are due to diarrhea.<sup>6</sup>
- Undernourished children have an increased risk of falling sick and greater severity of disease.
- Undernourished children who fall sick are much more likely to die from illness than well-nourished children.
- Parasitic infestation diverts nutrients from the body and can cause blood loss and anemia

**Solution:** Prevent and treat childhood infection and other disease. Hand-washing, deworming, zinc supplements during and after diarrhea, and continued feeding during illness are important.

## Limited Access to Nutritious Food

- 1 in 4 households is food insecure.<sup>7</sup>
- Achieving food security means ensuring quality and continuity of food access, in addition to quantity, for all household members.
- Dietary diversity is essential for food security.

**Solution:** Involve multiple sectors including agriculture, education, transport, gender, the food industry, health and other sectors, to ensure that diverse, nutritious diets are available and accessible to all household members.

## Low Status of Women

A central factor in malnutrition in India is the status of women. Low levels of education, early marriage and child bearing, inequitable power relations and inadequate knowledge of critical feeding and caring practices compromise the quality of child care.

## References

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8. WHO. 2009. *Global Prevalence of Vitamin A Deficiency in Populations at Risk 1995–2005*. WHO Global Database on Vitamin A Deficiency.
9. WHO. 2008. *Worldwide Prevalence of Anemia 1993–2005: WHO Global Database on Anemia*.
10. Horton S. et al. 2009. *Scaling Up Nutrition: What will it Cost?*
11. Micronutrient Initiative. 2009. *Investing in the Future: A United Call to Action on Vitamin and Mineral Deficiencies*

Undernutrition is not just a problem of poverty. As **Figure 3** shows, children are undernourished in one-quarter of even the richest households. This is not an issue of food access, but of caring practices and disease.

## Vitamin and Mineral Deficiencies Cause Hidden Hunger

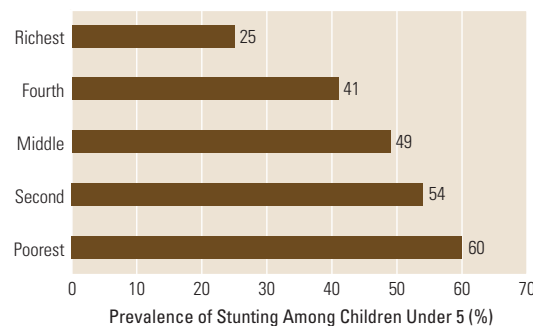
Although not be visible to the naked eye, vitamin and mineral deficiencies impact well-being in India.

- **Vitamin A:** 62% of preschool aged children and 16% of pregnant women are deficient in vitamin A.<sup>8</sup>
- **Iron:** Current rates of anemia among preschool aged children and pregnant women are 74% and 50%, respectively.<sup>9</sup>
- **Iodine:** While 1 in 2 households consume iodized salt, over 13 million infants remain unprotected from iodine deficiency disorders.<sup>6</sup>

## World Bank Nutrition-Related Activities in India

**Projects:** The World Bank has supported efforts to improve nutrition in India since 1980 through six projects with an overall investment of over US\$700 million. The ongoing US\$360 million Second Reproductive and Child Health Project aims to reduce maternal and child mortality by increasing access to essential health services including nutrition. A new nutrition project under preparation will support strengthening the policy framework, systems and capacity of India's flagship nutrition program ICDS, and explore opportunities for multi-sector nutrition

**FIGURE 3** Undernutrition Affects All Wealth Quintiles – Poor Infant Feeding Practices and Disease are Major Causes



Source: NFHS 2005/06 (figure based on the WHO Child Growth Standards)

actions. A regional effort supports several innovations in community-based infant and young child feeding practices.

**Analytic Work:** Several reports and policy notes in past years have analyzed India's progress towards the MDGs, the issues and challenges of India's nutrition programs and their outcomes; and health services for the poor and marginalized. Non-lending technical assistance on repositioning nutrition has been completed, and analytical work on institutional arrangements for nutrition is planned.

**Addressing undernutrition is cost effective: Costs of core micronutrient interventions are as low as US\$0.05–3.60 per person annually. Returns on investment are as high as 8–30 times the costs.<sup>10</sup>**

