



# NUTRITION at a GLANCE

# NEPAL

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## Country Context

**HDI ranking:** 144th out of 182 countries<sup>1</sup>

**Life expectancy:** 67 years<sup>2</sup>

**Lifetime risk of maternal death:** 1 in 31<sup>2</sup>

**Under-five mortality rate:** 51 per 1,000 live births<sup>2</sup>

**Global ranking of stunting prevalence:** 10th 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 individual's learning ability, the efficiency of the country's investments in education and skills development, national productivity and growth.
- 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 Nepal Stand?

- 49% of children under the age of five are stunted, 39% are underweight, and 13% are wasted.<sup>2</sup>
- More than 1 in 5 infants are born with a low birth weight.<sup>2</sup>
- Nepal has achieved high rates of vitamin A supplementation: 93% of children 6–59 months of age receive the recommended two doses of Vitamin A approximately six months apart.<sup>2</sup> Full coverage of vitamin A supplementation can decrease the risk of mortality by 23%.<sup>7</sup>
- National policy on zinc supplementation for the treatment of diarrhea has been enacted<sup>8</sup>, although coverage is still low. Zinc supplementation during diarrheal episodes can reduce morbidity by over 40%.<sup>9</sup>
- National coverage of women receiving iron-folic acid tablets is estimated to have increased from 23% in 2001 to 59% in 2006,<sup>14</sup> which may have reduced anemia rates among pregnant women since the last national survey.
- The proportion of households consuming adequately iodized salt was 63% in 2000.<sup>2</sup>

As shown in **Figure 1**, although the overall prevalence of stunting and underweight has been decreasing over the past two decades Nepal will not

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

Annually, Nepal loses nearly US\$190 million in GDP to vitamin and mineral deficiencies.<sup>3,4</sup> Scaling up core micronutrient interventions would cost less than US\$14 million per year.

(See *Technical Notes* for more information.)

## Key Actions to Address Malnutrition:

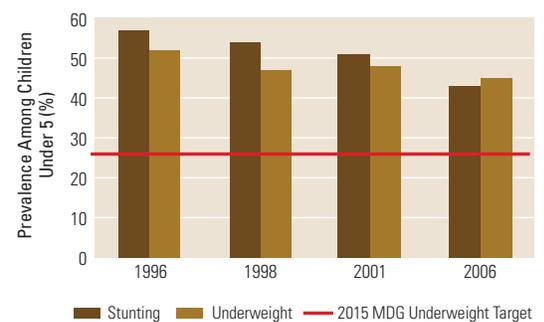
Engage in national-level multi-sectoral planning for nutrition. Increase the capacity of all sectors (health, water and sanitation, agriculture, local development, education) to address the underlying factors that cause malnutrition.

Scale-up well-proven interventions such as breastfeeding promotion, support for adequate complementary feeding, and zinc supplementation/ORS for treatment of diarrhea, for which coverage is currently too low.

Consolidate existing programs that are currently operating at scale: vitamin A supplementation and deworming for preschool children, IFA supplementation and deworming for pregnant women, and salt iodization.

Test innovative approaches, such as models for behavior change and double-fortified salt, to engage communities, including the private sector, to address malnutrition.

**FIGURE 1 Nepal is Not On Track Towards Meeting MDG 1**



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

meet MDG 1c (halving 1990 rates of child underweight by 2015) with business as usual.<sup>11</sup>

As seen in **Figure 2**, Nepal has high rates of stunting compared to countries in the same region and income group. African countries with similar per capita incomes exhibit lower rates of child stunting, which demonstrate the ability to achieve better nutrition outcomes despite low income.

## Poor Infant Feeding Practices

- Just over 1 in 3 newborns receive breast milk within one hour of birth.<sup>2</sup>
- Just over one-half (53%) 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, one-quarter of infants 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

- One-quarter of deaths among children under five are caused by 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

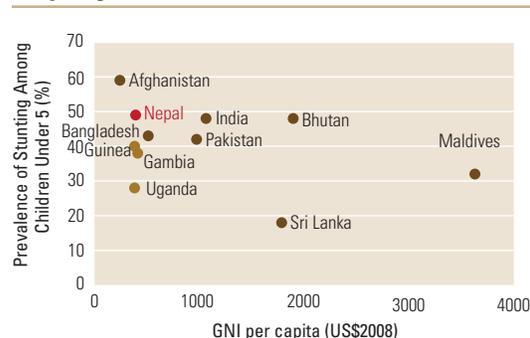
- 16% of households are food insecure.<sup>10</sup>
- Achieving food security means ensuring quality and continuity of food access, in addition to quantity, for all household members.
- Dietary diversity is essential for food security.

**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.

## References

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**FIGURE 2** Nepal 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 (figures based on WHO child growth standards). GNI data were obtained from the World Bank's World Development Indicators.

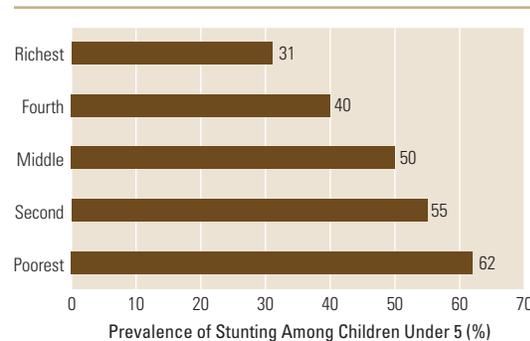
Undernutrition is not just a matter of poverty. **Figure 3** shows that children in Nepal are stunted in about one-third of even the richest households.

## Vitamin and Mineral Deficiencies Cause Hidden Hunger

Although they may not be visible to the naked eye, vitamin and mineral deficiencies impact well-being, and are pervasive in Nepal.

- **Vitamin A:** Almost one-third of preschool aged children and pregnant women are deficient in vitamin A.<sup>11</sup>
- **Iron:** Current rates of anemia among preschool aged children and pregnant women are 48% and 36%, respectively.<sup>12</sup> Iron-folic acid supplementation of pregnant women, deworming, provision of multiple micronutrient supplements to infants

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



Source: DHS 2006 (figures based on the WHO Child Growth Standards).

and young children, and fortification of staple foods are effective strategies to improve the iron status of these vulnerable subgroups.

## World Bank Nutrition-Related Activities in Nepal

**Projects:** The World Bank is currently supporting the Nepal Health Sector Program which includes components to improve maternal and child nutrition. The Bank-financed Social Safety Nets project also has a significant focus on protecting and improving the nutritional status of the most vulnerable.

**Analytic Work:** A Nutrition Assessment and Gap Analysis financed by the Japan Trust Fund for Scaling-Up Nutrition was recently completed. Further resources will be directed from this Fund to support the planning process for nutrition scale-up within multiple sectors.



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