NUTRITION at a GLANCE

INDONESIA

Country Context

HDI ranking: 111th out of 182 countries[1]

Life expectancy: 71 years[2]

Lifetime risk of maternal death: 1 in 97[2]

Under-five mortality rate: 41 per 1,000 live births[2]

Global ranking of stunting prevalence: 42nd highest out of 136 countries[2]

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*

The Costs of Undernutrition

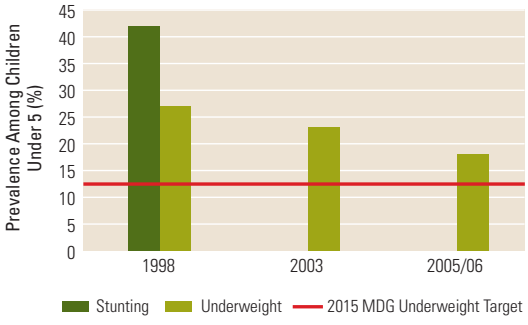
- Over one-third of child deaths are due to undernutrition, mostly from increased severity of disease.[2]
- Children who are undernourished between conception and age two are at high risk for impaired cognitive development, which adversely affects the country's productivity and growth.
- The economic 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.[5]

Where Does Indonesia Stand?

- 37% of children under the age of five are stunted, 18% are underweight, and 14% are wasted.[2]
- 1 in 10 infants are born with a low birth weight.[2]
- Indonesia has achieved high rates of vitamin A supplementation: 86% of children 6–59 months of age receive the recommended two doses of vitamin A approximately six months apart.[2]

As shown in **Figure 1,** the overall prevalence of underweight has fallen over the past two decades and Indonesia is on track to meet MDG 1.[6] However, since decentralization began in 2001, undernutrition rates have stagnated and are even increasing in a number of provinces.[7]

FIGURE 1 Indonesia is On Track to Meet MDG 1



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

Most of the irreversible damage due to malnutrition in Indonesia happens during gestation and in the first 24 months of life.[6]

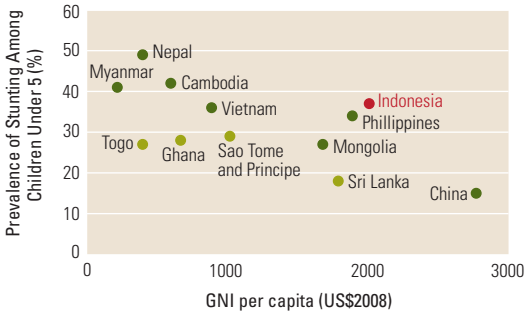
Annually, Indonesia loses over US$2.6 billion in GDP to vitamin and mineral deficiencies.[3,4] Investing 0.05% of total public spending over the next 5 years would halve Indonesia's prevalence of underweight among young children.[7]

(See Technical Notes for more information)

Key Actions to Address Malnutrition:	Approximate Return on Investment (%):[12]
Improve infant and young child feeding through effective education and counseling services.	1400
Invest in vitamin A Supplementation.	1700
Achieve universal salt iodization.	3000
Fortify commonly consumed foods with iron.	800
Ensure an adequate supply of zinc supplements for the treatment of diarrhea.	1370

As seen in **Figure 2**, Indonesia performs worse relative to many of its neighbors and income peers. A number of countries with less income have lower rates of stunting such as Togo and Ghana, in Africa.

FIGURE 2 Indonesia has Higher Rates of Stunting than its 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.

Nutritional status also varies by region and income level. Children under five in Gorontalo are almost 3 times as likely to be underweight than those in Yogyakarta.[7] Undernutrition affects both

Solutions to Primary Causes of Undernutrition

INDONESIA

Poor Infant Feeding Practices

- 39% of all newborns receive breast milk within one hour of birth.[2]
- Less than one-third (32%) of infants under six months are exclusively breastfed.[2]
- 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.[2]

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

- 13% of deaths of children under 5 are due to diarrhea.[6]
- 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

- Nearly one-fifth of households (16%) are food insecure.[8]
- 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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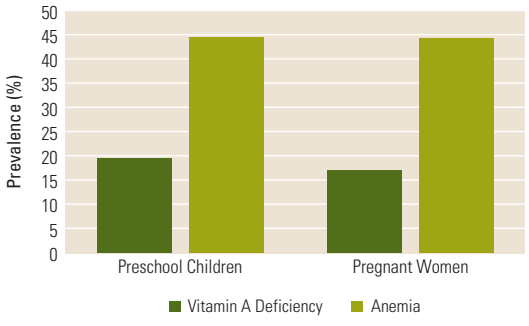
the rich and poor. Although the national prevalence of underweight children under 5 among the poor is 30%, 1 in 5 wealthy children under five are still underweight.[7]

Vitamin and Mineral Deficiencies Cause Hidden Hunger

Although they may not be visible to the naked eye, vitamin and mineral deficiencies impact well-being in Indonesia, as indicated in **Figure 3**.

FIGURE 3 High Rates of Vitamin A and Iron Deficiency Contribute to Lost Lives and Diminished Productivity



Source: 1995–2005 data from the WHO Global Database on Child Growth and Malnutrition

- **Vitamin A:** About one-fifth of preschool aged children and pregnant women are deficient in vitamin A.[9]
- **Iron:** Just under half of preschool aged children and pregnant women suffer from anemia.[10] Iron-folic acid supplementation of pregnant women, deworming, provision of multiple micronutrient supplements to infants and young children, and fortification of staple foods are effective strategies to improve the iron status of these vulnerable subgroups.
- **Iodine:** While 62% of households consume iodized salt, nearly 1.6 million infants remain unprotected from iodine deficiency disorders.[6]
- **Zinc:** Nearly 35% of the population is at risk of insufficient zinc intake.[12] Zinc supplementation during diarrheal episodes can reduce morbidity by more than 40%.[13]

World Bank Nutrition-Related Activities in Indonesia

The World Bank is supporting expansion of Indonesia's human resources for health through the Health Professional Educational Quality Project which includes training for nutritionists, an Early Childhood Development project with entry points for nutrition, the National Program for Community Empowerment with conditional cash transfers with entry points to nutrition, a feasibility study to strengthen the use of the locally collected child weight gain data and the Water Supply and Sanitation for Low Income Countries project which aims to impact nutritional status through reduction of diarrheal disease frequency and intensity.

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.[11]