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.\(^7\) 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

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

Most of the irreversible damage due to malnutrition in Indonesia happens during gestation and in the first 24 months of life.\(^6\)
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.\(^4\)
- 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.\(^3\)
- 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


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**

![Graph showing high rates of vitamin A and iron deficiency](https://via.placeholder.com/150)

- **Vitamin A:** About one-fifth of preschool aged children and pregnant women are deficient in vitamin A.\(^7\)
- **Iron:** Just under half of preschool aged children and pregnant women suffer from anemia.\(^9\)

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.\(^8\)
- **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.\(^11\)