The Costs of Undernutrition

- Over one-third of child deaths are due to undernutrition, mostly from increased severity of disease.¹
- 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 Haiti Stand?

- Over half of all households in Haiti (58%) are food insecure.⁷
- 73% of children 6–24 months are anemic.⁸
- 30% of children under the age of five are stunted, 19% are underweight, and 10% are wasted.⁹
- 25% infants are born with a low birth weight.⁹
- Only 41% of infants under six months are exclusively breastfed.²
- 68% of children aged 6–24 months are not fed according to the three recommended infant and young child feeding practices based on diet diversity, adequate feeding frequency and receiving breastfeeding or milk products.⁹

As shown in Figure 1, the overall prevalence of stunting and underweight has only fallen slightly over the past two decades, though Haiti is not on track to meet MDG 1c (halving 1990 rates of child underweight by 2015).⁵

![Figure 1: Haiti is not on track to meet MDG 1c](image)

**Figure 1: Haiti is not on track to meet MDG 1c**

Prevalence of Stunting Among Children Under 5 (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Underweight</th>
<th>2015 MDG Underweight Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>15%</td>
</tr>
</tbody>
</table>

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)

Vitamin and Mineral Deficiencies Cause Hidden Hunger

Although they may not be visible to the naked eye, vitamin and mineral deficiencies are pervasive in Haiti and cause serious damage to well-being and productivity.

- **Vitamin A:** One-third of preschool aged children are deficient in vitamin A.¹⁰ An estimated 3,200
Solutions to Primary Causes of Undernutrition

Poor Infant Feeding Practices
- Less than one-half (44%) of all newborns receive breast milk within one hour of birth.\(^2\)
- Less than half (41%) of infants under six months are exclusively breastfed.\(^3\)
- 68% of children aged 6–24 months are not fed according to the three recommended infant and young child feeding practices including (i) dietary diversity, (ii) adequate feeding frequency and (iii) receiving breastfeeding or milk products.\(^3\)
- Moreover the complementary food is usually of poor nutritional value.

**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. In high HIV settings, follow WHO 2009 HIV and infant feeding revised principles and recommendations.\(^{15}\)

High Disease Burden
- Malnutrition increases the likelihood of falling sick and the 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.
- 40% of the population has no access to an improved water source and 80% has no access to sanitation facilities.\(^{14}\)

**Solution:** Prevent and treat childhood infection and disease through hand-washing counseling, deworming, zinc supplements during and after diarrhea, and continued feeding during diarrhea.

Limited Access to Nutritious Food
- Over half of all households (58%) are food insecure.\(^7\)
- Achieving food security means ensuring quantity, nutritional quality and continuity of food access for all household members.
- The main strategies households adopt in response to lack of food or money to obtain food are reducing food quantity or number of meals per day, reducing dietary diversity, and adults reducing consumption for the benefit of children.
- Food price declines at the international level after the food crisis were not fully reflected in local markets.

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

References

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

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richest</td>
<td>4.7</td>
</tr>
<tr>
<td>Fourth</td>
<td>15.4</td>
</tr>
<tr>
<td>Middle</td>
<td>25.8</td>
</tr>
<tr>
<td>Second</td>
<td>31</td>
</tr>
<tr>
<td>Poorest</td>
<td>32.9</td>
</tr>
</tbody>
</table>

Source: DHS 2005/2006 (figures based on NCHS/WHO reference population)

Child deaths are precipitated by vitamin A deficiency annually.\(^{11}\)

- **Iron:** Two-thirds of children under-five, three-fourths of children under-two and 60% of pregnant women suffer from anemia.\(^{11}\) Iron deficiency increases the risk of maternal mortality and in children leads to impaired cognitive development, poor school performance, and reduced work productivity.

**Addressing undernutrition is cost effective:** Costs of core micronutrient interventions are as low as US$0.05–8.46 per person annually. Returns on investment are as high as 6–30 times the costs.\(^{13}\)

**Note:** The data in this brief have not been updated to reflect the impact of the Jan 12, 2010 earthquake.

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**World Bank Nutrition Related Activities in Haiti**
The World Bank is providing technical assistance to support the nutrition security of children 0–2 years and pregnant and lactating women. The primary focus is on preventing and addressing chronic malnutrition and anemia. Activities, supported by the Japan Nutrition Trust Fund, include analysis (e.g., assessment of nutrition programs and policies and a costing exercise), support for the revision of the national nutrition policy and the development of a national nutrition strategy, and the design of a community-based nutrition package for a pilot program that aims to increase vulnerable families’ access to services and improve their nutritional status. Immediately following the earthquake, the World Bank also contributed US$3 million for blanket supplementary feeding for children 6–23 months through WFP’s Emergency Operation (EMOP) and US$1 million to support PAHO’s health sector response, including basic health and nutrition services for pregnant women and young children.

**World Bank nutrition activities in Latin America:**
www.worldbank.org/lacnutrition