The Costs of Undernutrition
- Over one-third of child deaths are due to undernutrition, mostly from increased severity of disease.  
- 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 healthcare system, and indirect costs of lost productivity.
- Childhood anemia alone is associated with a 2.5% drop in adult wages.  

Where Does Mozambique Stand?
- 44% of children under the age of five are stunted, 4% are wasted, and 18% are underweight.  
- 15% of infants are born with a low birth weight.  

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

As shown in Figure 1, the prevalence of underweight has decreased enough to stay on track with meeting MDG 1c (halving 1990 rates of child underweight by 2015). The prevalence of stunting is stagnating, however, and progress to reduce malnutrition must continue.

Vitamin and Mineral Deficiencies Cause Hidden Hunger
Although they may not be visible to the naked eye, micronutrient deficiencies are widespread in Mozambique, as shown in Figure 4.
Solutions to Primary Causes of Undernutrition

**Poor Infant Feeding Practices**
- One-third of all newborns do not receive breast milk within one hour of birth.2
- Only 37% 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, 16% 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. In high HIV settings, follow WHO 2009 HIV and infant feeding revised principles and recommendations.12

**High Disease Burden**
- 13% of deaths among children under five are caused by diarrhea.2
- Undernutrition increases the likelihood of falling sick and 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**
- Over one-third of households 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.
- Lack of consistently-accessible diverse diets contributes to high levels of micronutrient deficiencies and lost human capital.

**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.

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**References**

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

<table>
<thead>
<tr>
<th>Wealth Quintile</th>
<th>Stunting Among Children Under 5 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richest</td>
<td>20</td>
</tr>
<tr>
<td>Fourth</td>
<td>35</td>
</tr>
<tr>
<td>Middle</td>
<td>46</td>
</tr>
<tr>
<td>Second</td>
<td>47</td>
</tr>
<tr>
<td>Poorest</td>
<td>49</td>
</tr>
</tbody>
</table>


**FIGURE 4** High Rates of Vitamin A and Iron Deficiency Contribute to Lost Lives and Diminished Productivity

- Adequate intake of micronutrients, particularly iron, vitamin A, iodine and zinc, from conception to age 24 months is critical for child growth and mental development.

**World Bank Nutrition Related Activities in Mozambique**

**Projects:** The World Bank is currently supporting the Health Service Delivery project, a US$72.4 million project (co-financed with multiple donors) which includes initiatives to reduce child and maternal mortality.

**Analytic Work:** The World Bank intends to conduct a scoping mission in April 2010 to see how it can best engage in the nutrition sector.