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 individual’s learning ability, the efficiency of the country’s investments in education and skills development and national productivity and development.
- 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 Afghanistan Stand?

- 59% of children under the age of five are stunted, 33% are underweight, and 9% are wasted.2
- Afghanistan has achieved high rates of vitamin A supplementation: 96% of children 6–59 months of age receive the recommended two doses of vitamin A approximately six months apart.3 Full coverage can decrease the risk of mortality by 23%.6
- National policy on zinc supplementation for the treatment of diarrhea has been enacted.7 Zinc supplementation during diarrheal episodes can reduce morbidity by more than 40%.8

As shown in Figure 1, the overall prevalence of stunting and underweight have decreased over the past two decades and the country is currently on track towards meeting MDG 1c (halving 1990 rates of child underweight by 2015).9 Nevertheless, much remains to be done to accelerate reductions in underweight and reduce low birth weight to improve outcomes for future generations of children.

Most of the irreversible damage due to malnutrition in Afghanistan happens during gestation and in the first 24 months of life.2

As seen in Figure 2, Afghanistan performs poorly relative to countries in the same region and income

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

Country Context

HDI ranking: 181st out of 182 countries1

Life expectancy: 44 years2

Lifetime risk of maternal death: 1 in 82

Under-five mortality rate: 257 per 1,000 live births2

Global ranking of stunting prevalence: Highest out of 136 countries2

Key Actions to Address Malnutrition:

- Increase the valuation of nutrition as central to national development by developing and implementing a multi-sectoral strategy to address both the short routes to nutrition improvement and the underlying causes.
- Improve infant and young child nutrition, focusing on improving early and exclusive breastfeeding during the first 6 months and appropriate complementary feeding from 6 to 24 months.
- Ensure good nutrition for women during pregnancy to improve birth outcomes and protect the health of the mother.
- Develop the capacity of Afghanistan to deliver nutrition services in the country.

FIGURE 1 Afghanistan is On Track Toward Meeting MDG 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Stunting (%)</th>
<th>Underweight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>2000</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>2004</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: WHO Global Database on Child Growth and Malnutrition (figures based on the NCHS/WHO reference population).
Solutions to Primary Causes of Undernutrition

Poor Infant Feeding Practices

- Qualitative field studies have found that exclusive breastfeeding (no liquids or solids but breast milk) for infants under six months is extremely rare.10
- During the important transition period to a mix of breast milk and solid foods between six and nine months of age, 71% 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

- 1 in 3 child deaths are due to pneumonia; close to 1 in 4 child deaths are due to diarrhea.9
- Only 22% of the population has access to clean water.2
- 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

- Close to 1 in 4 households is food insecure.12
- 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

3. UNICEF and the Micronutrient Initiative. 2009. Investing in the 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.

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 Afghanistan, as indicated in Figure 3.

- **Vitamin A:** 65% of preschool aged children and 16% of pregnant women are deficient in vitamin A.13
- **Iron:** Current rates of anemia among preschool aged children and pregnant women are 38% and 61%, respectively.14 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.

**World Bank Nutrition-Related Activities in Afghanistan**

**Projects:** The World Bank is currently supporting the Strengthening Health Activities for the Rural Poor (SHARP) project which intends to increase the provision of health care and nutrition services to women and children in underserved areas. Other projects such as the National Solidarity Program are also supporting activities which improve nutrition.

**Analytic Work:** Several policy notes have been completed in past years including an overall health sector review and an examination of food policy and security in the country. An assessment on the current nutrition situation is scheduled to be delivered in 2010. This assessment was carried out with funding from the Japan Trust Fund for Scaling-Up Nutrition and the World Bank’s Regional Reprioritization Fund.

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