The Costs of Malnutrition
- 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.
- Over one-third of child deaths are due to undernutrition, mostly from increased severity of disease.2
- The Africa region is anticipated to lose at least a cumulative US$4.0 billion to chronic disease by 2015.5
- The economic costs of undernutrition and over-weight 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.6

Where Does Swaziland Stand?
- 29% of children under the age of five are stunted, 5% are underweight, and 3% are wasted.2
- 46% of those aged 15 and above are overweight or obese.7
- Close to 1 in 10 infants are born with a low birth weight (9%).2
- Swaziland is currently on track to meet MDG 1c (halving 1990 rates of child underweight by 2015).9

As seen in Figure 1, Swaziland has similar rates of stunting as other countries with much lower per capita incomes in its region and in other regions. This shows that child malnutrition is not a function of income alone.

FIGURE 1 Swaziland has Similar Stunting Rates to Countries with Less than Half its Income

<table>
<thead>
<tr>
<th>Country</th>
<th>Prevalence of Stunting Among Children Under 5 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Gambia</td>
<td>27</td>
</tr>
<tr>
<td>Togo</td>
<td>30</td>
</tr>
<tr>
<td>Ghana</td>
<td>25</td>
</tr>
<tr>
<td>Mongolia</td>
<td>32</td>
</tr>
<tr>
<td>Iraq</td>
<td>17</td>
</tr>
<tr>
<td>Swaziland</td>
<td>27</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: DHS 2006/07 (figures based on NCHS/WHO reference population).

Undernutrition is not just a problem of poverty at the household level, either. As Figure 2 shows, children are undernourished in 1 in 6 of even the richest households. This is not an issue of food access, but of caring practices and disease.

FIGURE 2 Undernutrition Affects All Wealth Quintiles – Poor Infant Feeding Practices and Disease are Major Causes

<table>
<thead>
<tr>
<th>Wealth Quintile</th>
<th>Prevalence of Stunting Among Children Under 5 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richest</td>
<td>17</td>
</tr>
<tr>
<td>Fourth</td>
<td>25</td>
</tr>
<tr>
<td>Middle</td>
<td>27</td>
</tr>
<tr>
<td>Second</td>
<td>32</td>
</tr>
<tr>
<td>Poorest</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: DHS 2006/07 (figures based on NCHS/WHO reference population).

Most of the irreversible damage due to malnutrition happens during gestation and in the first 24 months of life.3
Solutions to Primary Causes of Undernutrition

SWAZILAND

Poor Infant Feeding Practices

• Close to one-third (32%) of all newborns do not receive breast milk within one hour of birth.1
• Two-thirds of infants (67%) under six months are not exclusively breastfed.2
• During the important transition period to a mix of breast milk and solid foods between six and nine months of age, almost one-quarter (23%) of all 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 2008 HIV and infant feeding revised principles and recommendations.17

High Disease Burden

• Undernutrition 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.

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

• 18% of households are food insecure, according to a measure of per capita access to calories.4 Many more households likely lack access to diverse diets year round.
• Achieving food security means ensuring quality and continuity of food access, in addition to quantity, for all household members.
• High levels of micronutrient deficiencies coexisting with obesity indicate that diet quality is not optimal.

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

The Double Burden of Undernutrition and Overweight

Though child stunting rates are high in Swaziland, the country has also seen a recent increase in adult obesity. The coexistence of undernutrition and overnutrition may lead to particular risks: low-birth weight infants and stunted children may be at greater risk of chronic diseases such as diabetes and heart disease than children who start out well-nourished.10

This “double burden” is the result of various factors. Progress in improving community infrastructure and development of sound public health systems has been slow, thwarting efforts to reduce undernutrition; while rapid urbanization and the adoption of Western diets high in refined carbohydrates, saturated fats and sugars, combined with a more sedentary lifestyle are commonly cited as the major contributors to the increase in overweight and chronic diseases.11

Vitamin and Mineral Deficiencies Cause Hidden Hunger

Although they may not be visible to the naked eye, vitamin and mineral deficiencies impact well-being, and are prevalent in Swaziland.

• Vitamin A: 45% of preschool aged children and 18% of pregnant women are deficient in vitamin A.12 Supplementation of young children and dietary diversification can eliminate this deficiency.
• Iron: Current rates of anemia among preschool aged children and pregnant women are 47% and 24%, respectively.13 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: 20% of households do not consume iodized salt,9 leaving children in those households unprotected from iodine deficiency disorders.
• Zinc: 21% of the population are at risk for insufficient zinc intake.14 Zinc supplementation during diarrheal episodes can reduce morbidity by more than 40%.15
• 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 Swaziland

The World Bank is currently supporting a US$2.7 million maternal and child health project through the Japan Social Development Fund, which will improve provision of iron-folic acid tablets, oral rehydration salts, and vitamin A supplements to community health workers. It will also provide information, education and motivation materials on breastfeeding, nutrition, post-natal care and immunization.

References


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.16