The Costs of Malnutrition

- The Middle East and North Africa region is anticipated to lose at least a cumulative US$2.3 billion to chronic disease by 2015.5
- 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 and overweight 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.8

Where Does Morocco Stand?

- 15% of infants are born with a low birth weight.4
- About 70% of children are not exclusively breastfed until the recommended 6 months.2
- 23% of children under the age of five are stunted, 9% are underweight, and 10% are wasted.2
- 43% of those aged 15 and above are overweight or obese.7
- 16% of children under the age of 5 are overweight.8

As seen in Figure 1, levels of child stunting in Morocco are comparable to lower-income countries in the region such as Iraq and Egypt. Stunting in Morocco is substantially higher than countries with similar per capita incomes such as Georgia, Turkmenistan, and Paraguay (not displayed below). Within the country, there is likely to be variation in malnutrition rates across geographies and socio-demographic groups.

The Double Burden of Undernutrition and Overweight

Morocco has seen a recent increase in adult obesity with over one-half of women either overweight or obese. Low-birthweight 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 In addition, marginalized status of women and non-egalitarian social roles may play a role in why women are more likely to be obese than men.12

Key Actions to Address Malnutrition: Approximate Return on Investment(%)16:

<table>
<thead>
<tr>
<th>Action</th>
<th>Approximate Return on Investment(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve universal salt iodization.</td>
<td>3000</td>
</tr>
<tr>
<td>Address obesity and chronic disease through national food policies that align with public health nutrition, including diversified agricultural production.</td>
<td>Not currently estimable</td>
</tr>
<tr>
<td>Invest in vitamin A supplementation for all children 6-59 months.</td>
<td>1700</td>
</tr>
<tr>
<td>Sustain and expand iron fortification of staple foods.</td>
<td>800</td>
</tr>
<tr>
<td>Ensure an adequate supply of zinc supplements for the treatment of diarrhea.</td>
<td>up to 1370</td>
</tr>
</tbody>
</table>

Annually, Morocco loses over US$173 million in GDP to vitamin and mineral deficiencies.34

Scaling up core micronutrient nutrition interventions in Morocco would cost less than US$24 million per year.

(See Technical Notes for more information.)

Source: Stunting rates were obtained from the WHO Global Database on Child Growth and Malnutrition (figures based on WHO child growth standards). GNI data were obtained from the World Bank’s World Development Indicators.

FIGURE 1 Morocco has Relatively Lower Overall Stunting Rates than its Neighbors, but Large Inequities Exist
Solutions to Primary Causes of Undernutrition

Poor Infant Feeding Practices

- 1 in 2 newborns do not receive breast milk within one hour of birth.2
- 70% of infants 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, two-thirds of infants are not fed appropriately with both breast milk and other foods.2
- Two-fifths of children with diarrhea are given less food than usual.18

Solution: Support women and their families to practice optimal infant and young children feeding practices. Breast milk fulfills all nutritional needs of infants up to six months of age, boosts their immunity, and reduces exposure to infections. After the 6 months, it is important that breast milk intake be complemented with nutrient dense food.

High Disease Burden

- 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.
- The 3 main causes of death are related to nutrition: cardiovascular diseases (21% of deaths), cancer (10%), and diabetes (6%).19

Solution: Prevent and treat childhood infection as well as chronic diseases. Hand-washing, deworming, zinc supplements during and after diarrhea, and continued feeding of diverse, nutritious food during illness are important.

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 pervasive in Morocco as indicated in Figure 2.

FIGURE 2 High Rates of Vitamin A and Iron Deficiency Contribute to Lost Lives and Diminished Productivity

Limited Access to Nutritious Food

- 5% of households are food insecure.9
- Regional disparities in food access are likely to exist.
- As of 2008, an estimated 96% of industrial flour in Morocco was fortified with micronutrients. But flour milled by numerous small producers is often not fortified.20
- Achieving food security means ensuring quality and continuity of food access, in addition to quantity, for all household members.
- High rates of micronutrient deficiencies, concurrent with obesity in the population, indicate that dietary quality is not optimal.

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.

World Bank Nutrition-Related Activities in Morocco

Projects: Financing from the Japan Trust Fund for Scaling-Up Nutrition will be used to support the development of a health development policy loan which plans to integrate nutrition activities within health activities to decrease the burden of chronic diseases; improve access to quality primary health care; and increase awareness of nutritional issues.

Analytic work: Non-lending technical assistance in the form of how-to-guidance on health financing and health improvement (with particular attention given to child health issues) was recently delivered. At present there are no reports with a substantive nutrition component in the pipeline.

References