The Costs of Malnutrition

- The Latin America and Caribbean region is anticipated to lose a cumulative US$8 billion to chronic disease by 2015.³
- 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.⁵

Where Does Ecuador Stand?

- 23% of children under the age of five are stunted and 6% are underweight.²
- There are roughly equivalent numbers of overweight and underweight children in Ecuador, and overweight is increasing.⁵
- 50% of those aged 15 and above are overweight, of which 14% are obese.⁶
- 10% of infants are born with a low birth weight.²

Ecuador has comparable rates of stunting to many countries in its region, despite having a higher per capita income than many (Figure 1).

The Double Burden of Undernutrition and Overweight

Though Ecuador is currently on track to meet MDG 1c (halving 1990 rates of child underweight by 2015), it has seen a recent increase in child obesity.⁵ 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.⁷

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.⁸ Cultural factors, perceptions and beliefs about different foods types may also play a significant role.⁹

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 Ecuador, as indicated in Figure 2.
Solutions to Primary Causes of Undernutrition

Ecuador

Poor Infant Feeding Practices

- Over half (60%) of infants under six months are not exclusively breastfed.1
- During the important transition period to a mix of breast milk and solid foods between six and nine months of age, 23% of infants are not fed appropriately with both breast milk and other foods.2

**Solution:** Support women and their families to exclusively breastfeed newborns for six months, and to introduce adequate complementary foods when infants are six months of age, while still breastfeeding.

High Disease Burden

- Undernourished children have an increased risk of falling sick and greater 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 disease through hand-washing, deworming, zinc supplements during and after diarrhea, and continued feeding. Promote adequate coverage of basic health and nutrition services, and improve community outreach.

Limited Access to Nutritious Food

- For most households in Ecuador, access to calories is not a problem.
- Dietary diversity is essential for food security.
- Achieving a diverse and nutritious diet seems to be a problem reflected in high rates of anemia, overweight and obesity.

**Solution:** Involve multiple sectors including education, health, agriculture, gender, the food industry, and other sectors, to ensure that diverse, nutritious diets are available and accessible to all household members. Examine food policies and the country regulatory system as they relate to overweight and obesity.

References

5. PAHO. Malnutrition in Infants and Young Children in Latin America and the Caribbean: Achieving the Millennium Development Goals.

**FIGURE 2**

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

- Vitamin A: 15% of preschool aged children are deficient in vitamin A.10
- Iron: Current rates of anemia among preschool aged children and pregnant women are 38%.11 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.
- 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 Ecuador

The World Bank is supporting the Government of Ecuador in its efforts to reduce malnutrition largely through its analytical and advisory work. A nutrition review was completed in 2006 and highlighted key recommendations for improving the nutrition situation. The Bank is now working with the government through a Non Lending Technical assistance program (NLTA) to implement some of the recommendations of the study, and strengthening the nutrition monitoring system, SIVAN. The Bank, in collaboration with the Ministry of Social Development, has also recently produced and disseminated a video to make chronic malnutrition more visible and promote the use of basic health and nutrition services.

**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.12