Nutritional Glance at Technical Notes

Nutritional Status

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.

The Costs of Malnutrition

- 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.
- Childhood anemia alone is associated with a 2.5% drop in adult wages.⁶
- The Africa region is anticipated to lose at least a cumulative US$4.0 billion to chronic disease by 2015.³
- 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.

Country Context

HDi ranking: 169th out of 182 countries¹
Life expectancy: 58 years²
Lifetime risk of maternal death: 1 in 12²
Under-five mortality rate: 110 per 1,000 live births⁴
Global ranking of stunting prevalence: 38th highest out of 136 countries²

Where Does Liberia Stand?

- 39% of children under the age of five are stunted, 19% of children under the age of five are underweight, and 8% are wasted.²
- Liberia will not meet MDG 1c (halving 1990 rates of child underweight by 2015) with business as usual.⁹
- 14% of infants are born with a low birth weight.²
- 39% of those aged 15 and above are overweight or obese.⁷

As seen in Figure 1, Liberia’s stunting rates are higher than many countries in the Africa region with similar per capita income.

FIGURE 1 Liberia Has Higher Rates of Stunting than Many of its Neighbors and Income Peers

Source: Stunting rates were obtained from 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.

Technical Notes

Stunting is low height for age. Underweight is low weight for age. Wasting is low weight for height. Low birth weight is a birth weight less than 2500g. Overweight is a body mass index (kg/m²) of ≥ 25; obesity is a BMI of ≥ 30.

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

Undernutrition is not just a problem of poverty. As Figure 2 shows, children are undernourished in 1 in 4 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


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

**Poor Infant Feeding Practices**
- One third of all newborns do not receive breast milk within one hour of birth.
- 71% of infants under six months are not exclusively breastfed.
- During the important transition period to a mix of breast milk and solid foods between six and nine months of age, over one-third of all infants are not fed appropriately with both breast milk and other foods.

**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.10

**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.

**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**
- 38% of households are food insecure as defined as per capita access to calories.11 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.
- Dietary diversity is essential for food security. High rates of hidden hunger indicate that dietary diversity is likely to be low.

**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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**The Double Burden of Undernutrition and Overweight**
Liberia remains a country with a high rate of child undernutrition that has not substantially decreased in the last two decades. Paradoxically, it has also seen a recent increase in adult obesity. 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.12

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.13 Cultural factors, perceptions and beliefs about body weight may also play a significant role.

**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 Liberia, as indicated in Figure 3.
- 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.

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**Resources**

13. Popkin BM et al. 1996. Stunting is Associated with Overweight in Children of Four Nations that are Undergoing the Nutrition Transition.

**FIGURE 3**
High Rates of Vitamin A and Iron Deficiency Contribute to Lost Lives and Diminished Productivity

- **Vitamin A:** Just over one half of preschool aged children and 1 in 12 pregnant women are deficient in vitamin A.14 Supplementation of young children and dietary diversification can eliminate this deficiency.
- **Iron:** Current rates of anemia among preschool aged children and pregnant women are 87% and 62%, respectively.15 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 Liberia**
The World Bank is not currently supporting any nutrition projects in Liberia.