The Costs of Undernutrition

- Over one-third of child deaths are due to undernutrition, mostly from increased severity of disease.3
- 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.6
- 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.4

Where Does Mali Stand?

- 39% of children under the age of five are stunted, 28% are underweight, and 15% are wasted.5
- About one-fifth of infants are born with a low birth weight.2

Most of the irreversible damage due to malnutrition happens during gestation and in the first 24 months of life.6

As seen in Figure 1, prevalence of stunting is relatively high in Mali compared to countries with similar per capita incomes such as Burkina Faso and Ghana. This shows that it is possible to achieve better nutrition outcomes despite low income.

Undernutrition is not just a problem of poverty. As Figure 2 shows, children are undernourished in over one-fifth of even the richest households. This is typically not an issue of food access, but of caring practices and disease.
Solutions to Primary Causes of Undernutrition

Poor Infant Feeding Practices
- Less than one-half (46%) of all newborns receive breast milk within one hour of birth.2
- Only 38% of infants under six months are exclusively breastfed.3
- During the important transition period to a mix of breast milk and solid foods between six and nine months of age, 70% 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. In high HIV settings, follow WHO 2009 HIV and infant feeding revised principles and recommendations.13

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 including worms. Hand-washing, deworming, zinc supplements during and after diarrhea, and continued feeding during illness are important.

Limited Access to Nutritious Food
- One in ten households is food insecure, as defined as per capita access to calories.9 However, 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.

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.

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 Mali, as indicated in Figure 3.

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


- Vitamin A: One-half of preschool aged children and 1 in 6 pregnant women are deficient in vitamin A.10 Supplementation of young children and dietary diversification can eliminate this deficiency.
- Iron: Current rates of anemia among preschool aged children and pregnant women are 83% and 73%, respectively.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.
- Iodine: One fifth of households still do not consume iodized salt6, leaving infants and children in those households unprotected from iodine deficiency disorders.
- 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.

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.12

World Bank Nutrition Related Activities in Mali
There are currently no World Bank projects that directly support nutrition activities in Mali.

References
5. WHO Global Database on Child Growth and Malnutrition.