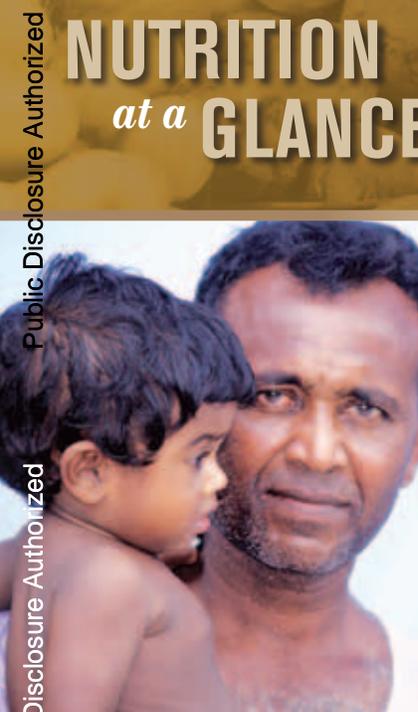




# NUTRITION at a GLANCE

# MALDIVES



## Country Context

**HDI ranking:** 154th out of 182 countries<sup>1</sup>

**Life expectancy:** 57 years<sup>2</sup>

**Lifetime risk of maternal death:** 1 in 22<sup>2</sup>

**Under-five mortality rate:** 118 per 1,000 live births<sup>2</sup>

**Global ranking of stunting prevalence:** 52nd highest out of 136 countries<sup>2</sup>

## Technical Notes

**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.

**Low birth weight** is a birth weight less than 2500g.

**Overweight** is a body mass index (kg/m<sup>2</sup>) of  $\geq 25$ ; obesity is a BMI of  $\geq 30$ .

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](http://www.worldbank.org/nutrition/profiles)

## The Costs of Malnutrition

- The South Asia region is anticipated to lose at least a cumulative US\$20 billion to chronic disease by 2015.<sup>3</sup>
- Globally over one-third of child deaths are due to undernutrition, mostly from increased severity of disease.<sup>2</sup>
- 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.<sup>4</sup>

## Where Does the Maldives Stand?

- 32% of children under the age of five are stunted, 26% of children under the age of five are underweight, and 13% are wasted.<sup>2</sup>
- 44% of those aged 15 and above are overweight or obese.<sup>5</sup>
- 22% of infants are born with a low birth weight.<sup>2</sup>

**Most of the irreversible damage due to malnutrition in the Maldives happens during gestation and in the first 24 months of life.<sup>7</sup>**

As seen in **Figure 1**, the Maldives performs better than many of its neighbors in the region. However, many African countries with significantly lower per capita incomes exhibit similar rates of child stunting. At the same GNI, Ecuador has a lower rate of stunting, showing that nutrition progress cannot be attributed to income alone.

## The Double Burden of Undernutrition and Overweight

Though the Maldives is currently on track to meet MDG 1c (halving 1990 rates of child underweight by 2015) it has seen a recent increase in adult obesity. 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.<sup>14</sup>

Scaling up core micronutrient interventions would cost about \$720,000 per year.

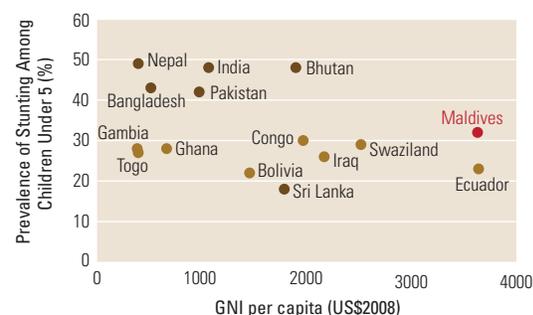
(See *Technical Notes* for more information)

## Key Actions to Address Malnutrition:

Approximate Return on Investment (%)<sup>12,13</sup>:

Improve infant and young child feeding through effective education and counseling services.	1400
Fortify staple foods with iron.	800
Ensure supply of multiple micronutrient powders for home fortification of complementary foods for infants and young children.	3700
Achieve universal salt iodization, including salt used in tuna processing.	3000
Address obesity through national food policies that align with public health nutrition.	Not currently estimable

**FIGURE 1** The Maldives has Higher Rates of Stunting than its Lower Income Peers



Source: Stunting rates were obtained from WHO Global Database on Child Growth and Malnutrition. GNI data were obtained from the World Bank's World Development Indicators.

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.<sup>8</sup>

## Poor Infant Feeding Practices

- Exclusive breastfeeding of infants is far less common than it should be for optimal nutrition. Only 10% of infants under six months are exclusively breastfed.<sup>2</sup>
- During the important transition period to a mix of breast milk and solid foods between six and nine months of age, 15% of all infants are not fed appropriately with both breast milk and other foods.<sup>2</sup>

**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.

## 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

- For most households in Maldives, access to calories is not a problem.<sup>6</sup>
- 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. Examine food policies and the country regulatory system as they relate to overweight and obesity.

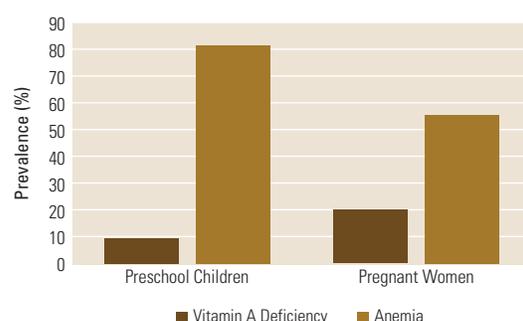
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## Vitamin and Mineral Deficiencies Cause Hidden Hunger

Although they may not be visible to the naked eye, vitamin and mineral deficiencies impact well-being, and are highly prevalent in the Maldives as indicated in **Figure 2**.

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



Source: 1995–2005 data from the WHO Global Database on Child Growth and Malnutrition.

- **Vitamin A:** Roughly 10% of preschool aged children and 20% of pregnant women are deficient in vitamin A.<sup>9</sup>
- **Iron:** Current rates of anemia among preschool aged children and pregnant women are 82% and 55%, respectively.<sup>10</sup> 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:** Two-thirds of households are not consuming iodized salt.<sup>7</sup> Salt is often consumed through processed foods such as canned tuna, and iodization of salt used in food processing could be an effective route to curbing iodine deficiency. At the same time, households should not be encouraged to consume more salt than they already do, to avoid aggravation of hypertension. An approach of iodizing all salt currently in use while discouraging excess salt and processed food consumption can address both risks of chronic disease and of iodine deficiency.
- 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 the Maldives

The World Bank is currently supporting the US\$18 million Integrated Human Development Project which intends to address issues of child malnutrition through the communication of strategic behavioral changes; improved nutrition surveillance; and greater use of locally available complementary foods.

**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.<sup>11</sup>**

