NUTRITION at a GLANCE

77199

TAJIKISTAN

Country Context

HDI ranking: 127th out of 182 countries[1]

Life expectancy: 67 years[2]

Lifetime risk of maternal death: 1 in 160[2]

Under-five mortality rate: 64 per 1,000 live births[2]

Global ranking of stunting prevalence: 38th highest out of 136 countries[2]

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^2) 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*

The Costs of Malnutrition

- The Europe and Central Asia region is anticipated to lose a cumulative US$7 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.[6]

Where Does Tajikistan Stand?

- 39% of children under the age of five are stunted, 15% are underweight, and 7% are wasted.[2]
- Over 40% of those aged 15 and above are overweight or obese.[7]
- 10% of infants are born with a low birth weight.[2]
- Tajikistan has achieved high rates of vitamin A supplementation: 87% of children 6–59 months of age receive the recommended two doses of vitamin A approximately six months apart.[2] Full coverage can decrease the risk of mortality by 23%.[8]

As seen in **Figure 1**, Tajikistan has much higher rates of stunting than countries in the same region and income group. Neighboring Kyrgyzstan (not displayed below), with a similar per capita income, has a stunting prevalence of 18%, illustrating that stunting is not dependent on GNI alone.

The Double Burden of Undernutrition and Overweight

Though Tajikistan 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[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 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]

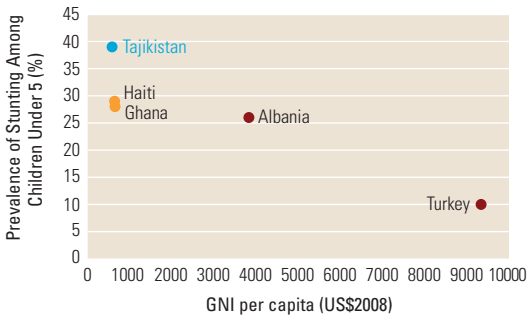
Annually, Tajikistan loses over US$60 million in GDP to vitamin and mineral deficiencies.[3,4] Scaling up core micronutrient nutrition interventions would cost US$4 million per year.

(See Technical Notes for more information.)

Key Actions to Address Malnutrition:

- Improve infant and young child feeding, including exclusive breastfeeding for 6 months, through effective education and counseling services.
- Support vitamin A supplementation of young children.
- Increase coverage of iron supplementation for pregnant women.
- Achieve universal salt iodization.
- Improve dietary diversity through increased market access, diversified agricultural production, and national food policies that align with public health nutrition.

FIGURE 1 Tajikistan has Higher Rates of Stunting than its neighbors and 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.

Most of the irreversible damage due to malnutrition in Tajikistan happens during gestation and in the first 24 months of life.[9]

Solutions to Primary Causes of Undernutrition

TAJIKISTAN

Poor Infant Feeding Practices

- 39% of all newborns do not receive breast milk within one hour of birth.[2]
- Three-quarters 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, 85% 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 introduction and use of appropriate complementary food. 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

- Undernourished children have an increased likelihood of falling sick and experiencing a severe course 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.
- Poor sanitation is the major determinant of diarrheal disease in Tajikistan.

Solution: Prevent and treat childhood infection and other disease. Hand-washing, deworming, oral rehydration salts and zinc supplements during and after diarrhea, and continued feeding during illness are important.

Limited Access to Nutritious Food

- 1 in 4 households are food insecure9, although this figure may have decreased slightly since the 2008 food crisis.
- Households often cope with food insecurity by reducing the number of meals consumed per day, and relying on less-preferred and cheaper foods.
- 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.

References

1. UNDP. 2009. *Human Development Report.*
2. UNICEF. 2009. *State of the World's Children.*
3. UNICEF and the Micronutrient Initiative. 2004. *Vitamin and Mineral Deficiency: a Global Progress Report.*
4. World Bank. 2009. *World Development Indicators* (Database).
5. Abegunde D et al. 2007. *The Burden and Costs of Chronic Diseases in Low-Income and Middle-Income Countries.* The Lancet 370: 1929–38.
6. Horton S and Ross J. 2003. *The Economics of Iron Deficiency.* Food Policy 28:517-5.
7. WHO. 2009. *WHO Global InfoBase* (Database).
8. Beaton G., et al. 1993. *Effectiveness Of Vitamin A Supplementation in the Control of Young Child Morbidity and Mortality in Developing Countries.* ACC/SCN State-of-the-Art Series, Nutrition Policy Paper No. 13.
9. FAO. 2009. *The State of Food Insecurity in the World: Economic Crises – Impacts and Lessons Learned.*
10. Victora CG, et al. 2008. *Maternal and Child Undernutrition: Consequences for Adult Health and Human Capital.* The Lancet 371:340-57.
11. Popkin BM. et al. 1996. *Stunting is Associated with Overweight in Children of Four Nations that are Undergoing the Nutrition Transition.* J Nutr 126:3009–16.
12. WHO. 2009 *Global Prevalence of Vitamin A Deficiency in Populations at Risk 1995-2005.* WHO Global Database on Vitamin A Deficiency.
13. WHO. 2008. *Worldwide Prevalence of Anemia 1993–2005: WHO Global Database on Anemia.*
14. UNICEF. 2009. *Tracking Progress on Child and Maternal Nutrition.*
15. Micronutrient Initiative. 2009. *Investing in the Future: A United Call to Action on Vitamin and Mineral Deficiencies.*
16. Bhandari N., et al. 2008. E*ffectiveness of Zinc Supplementation Plus Oral Rehydration Salts Compared With Oral Rehydration Salts Alone as a Treatment for Acute Diarrhea in a Primary Care Setting: A Cluster Randomized Trial.* Pediatrics 121;e1279-e1285.
17. Horton S. et al. 2009 *Scaling Up Nutrition: What will it Cost?*
18. Bakilana M and Mshisha W. Tajik Child Health: All Hands on Deck. 2009. World Bank.
19. Tajikistan Poverty Assessment 2009. World Bank.

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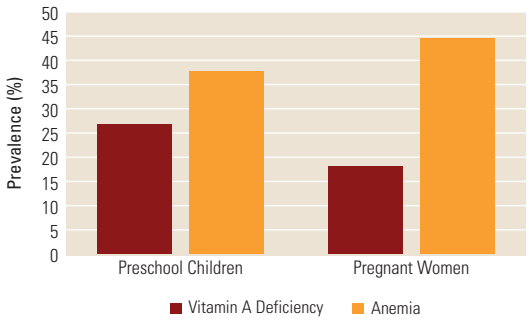
Produced with support from the Japan Trust Fund for Scaling Up Nutrition

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 Tajikistan as indicated in **Figure 2**.

- **Vitamin A:** 26% of preschool aged children and 18% of pregnant women are deficient in vitamin A.[12]
- **Iron:** Current rates of anemia among preschool aged children and pregnant women are 38% and 46%, respectively.[13] 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.

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.

- **Iodine:** Two-thirds of households do not consume iodized salt.[14]
- **Zinc:** One-half of the population is at risk for insufficient zinc intake.[15] Zinc supplementation during diarrheal episodes can reduce morbidity by more than 40%.[16]
- 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 Tajikistan

Projects: The World Bank is currently supporting the US$25 million Community and Basic Health Project, which directs resources to improve delivery of maternal and child health services. Of the total, $4 million was allocated with the specific aim of improving nutritional outcomes for pregnant and breastfeeding women, and infants and children under age five. Following from these activities, the Tajikistan health/social protection team received preliminary approval in 2010 to implement a Crisis Response grant which aims to focus on community based nutrition activities in the most food-insecure region in Tajikistan.

Analytic Work: Several policy notes and reports have been produced in the last year examining the status of Tajikistan's health system, and evaluating the effectiveness of a multi-sectoral approach to health and nutrition-related issues.[18, 19] An ongoing Regional Nutrition Situation Analysis for Central Asia (including Tajikistan) is scheduled for delivery this fiscal year.