

# Child and Maternal Nutrition in Bangladesh

## KEY STATISTICS

Nutrition	% of the population
Malnutrition, in children (birth to 59 months)	
Wasting (weight-for-height)	17.4 <sup>2</sup>
Stunting (height-for-age)	43.2 <sup>2</sup>
Underweight (weight-for-age)	41 <sup>2</sup>
Low birth-weight	36 <sup>1</sup>
Exclusive breastfeeding (birth to 6 months)	43 <sup>2</sup>
Anemia, in children (6 - 23 months)	64 <sup>3</sup>
Chronic energy deficiency, in mothers	32 <sup>5</sup>
Night blindness (Vitamin A deficiency), in children (18-59 months)	0.04 <sup>5</sup>
Iodine deficiency, in children (6 - 12 years)	33.8 <sup>6</sup>

<sup>1</sup> Statistical Yearbook of Bangladesh, Bangladesh Bureau of Statistics, 2004

<sup>2</sup> Bangladesh Demographic and Health Survey, 2007

<sup>3</sup> Helen Keller International / Institute of Public Health and Nutrition, 2002

<sup>4</sup> Child and Mother Nutrition Survey of Bangladesh, 2005

<sup>5</sup> Nutrition Surveillance Programme; Helen Keller International / Institute of Public Health and Nutrition, 2005

<sup>6</sup> Bangladesh Iodine Deficiency Disorder / Universal Salt Iodisation Survey, 2005

## BACKGROUND

The prevalence of malnutrition in Bangladesh is among the highest in the world. Millions of children and women suffer from one or more forms of malnutrition including low birth weight, wasting, stunting, underweight, Vitamin A deficiencies, iodine deficiency disorders and anemia. Today malnutrition not only affects individuals but its effects are passed from one generation to the next as malnourished mothers give birth to infants who struggle to develop and thrive. If these children are girls, they often grow up to become malnourished mothers themselves. Globally, malnutrition is attributed to almost one-half of all child deaths. Survivors are left vulnerable to illnesses, stunted growth and intellectual impairment.

Although Bangladesh has made good progress in the past decade to achieve Millennium Development Goal 1, the eradication of extreme poverty and hunger, more needs to be

done. Malnutrition rates have seen a marked decline in Bangladesh throughout the 1990s, but remained high at the turn of the decade. Nationally, 41%<sup>2</sup> of children under five years are moderately to severely underweight and 43.2%<sup>2</sup> suffer from moderate to severe stunting, an indicator for chronic malnutrition. Underweight prevalence decreased slightly between 2004 and 2007. Of greater concern are the rates of wasting that increased over the same period reaching 17.4 %, exceeding the WHO emergency threshold level (15%), which indicates an urgent need for action.

Micronutrient deficiencies especially iron and folic acid deficiencies that result in nutritional anemia in children and women and neural tube defects in newborns, remain a public health problem in Bangladesh. Poor intake of foods rich in iron and folic acid and multiple infections have resulted in high rates of anemia among pregnant women and children under two years. Coverage of pre and postnatal iron and folic acid supplements is very low (only 15% of pregnant women in rural areas take at least 100 tablets during pregnancy<sup>7</sup>) due, in part, to low compliance rates and low coverage of antenatal services. Coverage of multiple micronutrient supplements formulated to address iron and other micronutrient deficiencies is also very low.

## ISSUES

In Bangladesh, crop production, predominantly rice, is characterized by fluctuations in yield that are tied to climatic conditions. Recurrent natural disasters such as floods and cyclones have affected rice production and the livelihoods of both urban and rural populations. Food security and access of the poor to a diverse and balanced diet remains a challenge. Global food price hikes have dealt a new blow to those who are already nutritionally insecure in Bangladesh.

An important dynamic in Bangladesh that undermines nutrition outcomes, is seasonality. Levels of malnutrition (wasting and underweight) follow a seasonal tendency, increasing during the summer months and decreasing in the winter months. During summer months, the increased levels of malnutrition are linked to rise in child morbidity and restricted access to food resources. Diarrhoea and acute respiratory infections are major causes of illness especially in children. Diarrhoeal disease has been repeatedly linked to increased risk of malnutrition, underpinned by conditions such as lack of clean water, poor sanitation and inadequate health services.

One of the challenges in the last couple of years has been the availability of timely, appropriate and reliable nutrition information to identify needs, guide programme implementation and function as an early warning system. There has been a lack of national level nutrition surveillance data since 2006. It is hoped that recent funding will allow this important component of nutrition programmes.



© Dr Harriet Torlesse/ UNICEF

The National Nutrition Programme currently covers only 109 sub-district (upazilas) out of 482, covering approximately 20% of the population of the country with plans to scale that up to over one-third in 2009.

---

<sup>7</sup> Nutrition Surveillance Programme; Helen Keller International/ IPHN 2006

Through this programme, volunteer Community Nutrition Promoters work in 24,000 community nutrition centers providing information, advice and counseling to improve the nutritional status of children, adolescent girls and women.

At the national policy level, there is no dedicated nutrition policy and strategy. Nutrition is embedded within the existing food policy, which is heavily focused on food-based approaches and gives scant attention to non food-based strategies needed to address nutrition problems. To tackle malnutrition, a national nutrition policy and a better integration of nutrition programmes are required. A multi-sectoral approach also needs to be considered.



© Shehzad Noorani/UNICEF

Provision of treatment for severely malnourished children remains limited despite national guidelines for facility based-treatment. Even if the guidelines were fully implemented, only about 20% of the severely malnourished children could be managed within health facilities. Guidelines for community-based treatment need to be developed so malnourished children can also be managed at home.

## ACTION

UNICEF focuses its nutrition work in Bangladesh on high-impact interventions that improve nutrition across the entire lifecycle, from infancy through childhood, adolescence, and the childbearing years. These interventions are implemented in close partnerships with the Government of Bangladesh, UN agencies (FAO, WFP, WHO), development partners (USAID, CIDA, BMGF, GAIN), the Micronutrient Initiative and more than 20 national and international NGOs.

With the assistance of UNICEF and other development partners, the government has made substantial investments in nutrition, including the National Nutrition Programme, which provides comprehensive nutrition services to around 29 million people at community level. As a result, the country has made considerable progress in addressing some forms of malnutrition among children, including Vitamin A and iodine deficiencies.

### ***Capitalizing on the benefits of Vitamin A***

Very good progress has been made to reduce Vitamin A deficiency among children under five years through Vitamin A supplementation. Night blindness in children under five years has reduced from 3.76%<sup>8</sup> in 1983 to 0.04%<sup>9</sup> in 2005 and is being maintained well below the WHO-recommended 1% threshold level. National Vitamin A campaigns, developed by the government and UNICEF, deliver Vitamin A supplements twice each year to children aged 12-59 months. These campaigns reach 20.6 million children (95%<sup>10</sup> of all Bangladeshi children), and are an ideal platform for delivering deworming tablets and nutrition

<sup>8</sup> Nutrition Surveillance Programme; Helen Keller International/ IPHN, 1983

<sup>9</sup> Nutrition Surveillance Programme; Helen Keller International/ IPHN 2005

<sup>10</sup> Nutrition Surveillance Programme; Helen Keller International/ IPHN 2005

messages. UNICEF is also supporting Vitamin A supplementation for children under one year of age in order to improve coverage from 85% to more than 90%.

However, the number of mother receiving Vitamin A supplements within six weeks of delivery, remains very low because most women give birth at home, without the assistance of skilled birth attendants. UNICEF is supporting the government to develop strategies to target these mothers, with the aim of increasing postpartum Vitamin A coverage from 35% to at least 60% by 2010.

Grains of salt to reduce iodine deficiency disorders A successful campaign to iodize all salt is reducing iodine deficiency in Bangladesh. Iodine deficiency causes intellectual impairment and lowers IQ by as much as 10 - 15%<sup>6</sup>. The Universal Salt Iodization programme has made significant progress in the past decade, reducing the prevalence of iodine deficiency disorders in school-aged children to 33.8%<sup>6</sup> (from 42.5% in 1999<sup>6</sup>). With strong political commitment and administrative support from the government and the private sector, household utilization of iodized salt has increased to 84%<sup>11</sup>. However, only 51%<sup>6</sup> of household salt is adequately iodized. UNICEF supports amendments to the Salt Law, making it mandatory for livestock, food and beverage industries to use only adequately iodized salt.



© Shehzad Noorani/UNICEF

### ***Addressing anemia***

UNICEF has supported the government to formulate a National Strategy of Prevention and Control of Anemia. In the Chittagong Hill Tracts, UNICEF and the Integrated Child Development Project have introduced a package of interventions designed to prevent anemia in children, adolescent girls and pregnant and lactating women. The project includes iron-folate supplements, deworming tablets and counseling to improve dietary intake, control disease and improve iron-folate intake. A network of adolescent girls groups is used to reach those who do not have regular contact with health services. In some urban slums of Dhaka and seven selected upazillas, Multiple Micronutrient Powder is being provided to families to prevent and correct anemia in children under five.

### ***Feeding infants and young children***

In Bangladesh, the overall rate of exclusive breastfeeding to six months of age is only 43%<sup>2</sup> and initiation of breastfeeding within the first hour after delivery is 24% while, in most cases, complementary foods are introduced too early or too late with insufficient quality and quantity. Although there is a national Infant and Young Child Feeding (IYCF) strategy, there is no implementation plan. Thus, the strategy has not led to the desired impact. Changing norms and behaviours is a challenge as cultural norms discourage the use of breast milk for the first three days after birth. Increasing women's knowledge of practical steps they can take to improve the nutrition of their children and entire family is a key intervention. As women are unlikely to be the key decision-makers within their families regarding food

<sup>11</sup> Bangladesh Multiple Indicator Cluster Survey 2006

purchases, awareness programmes also need to reach men. UNICEF supports the National Nutrition Programme to scale-up community-based peer counseling through mothers' support groups. The project aims to reach 100,000 mothers in 2009.

### ***Responding to emergencies***

As the UN body mandated to lead the nutrition response in emergencies, UNICEF intervened immediately after Cyclone Sidr in December 2007. Special efforts were made to promote optimum infant and young child feeding practices in difficult circumstances. 150 metric tonnes of high-energy biscuits benefiting were procured and distributed to more than 72,000 children and women in Sidr-affected areas. To complement WFP food rations, 5,550 metric tonnes of supplementary food was distributed to the same vulnerable groups, benefiting to 269,800 children aged 6-59 months, 81,500 pregnant women and 29,300 lactating mothers in seven affected districts.

In 2009, UNICEF will support the roll-out of the national guidelines for treatment of severely malnourished children and facilitate the development of emergency preparedness measures, including capacity building to provide nutrition in emergencies. UNICEF will also work towards the standardization of nutrition assessment tools.

## **IMPACT**

- It is estimated that 30,000 children's lives are saved in Bangladesh each year by Vitamin A supplementation. The prevalence of night blindness, a symptom of Vitamin A deficiency, has been kept below the level that indicates a public health problem. Over 20 million children aged 12 to 59 months received Vitamin A capsules during the last National Vitamin A+ Campaign held in May 2008.
- 84% of all edible salt is now iodized, helping reduce iodine deficiency disorders. The prevalence of goitre in school-aged children decreased from 50% in 1993<sup>12</sup> to 6% in 2004/05 in the last decade as a direct result of salt iodization. Prevalence of severe iodine deficiencies in school-aged children were reduced from 23.4% in 1993<sup>13</sup> to 4% in 2004/05<sup>13</sup>.
- Community-based models for preventing anemia in children, adolescent girls and women have been piloted in selected upazilas of Chittagong Hill Tracts, seven National Nutrition Programme convergence upazilas and selected slums of Dhaka and Chittagong City Corporation areas. This pilot project is being expanded to other areas in urban and rural Bangladesh, targeting 75,000 children, 15,000 adolescent girls and 6,000 women.
- 15 million young children are treated with deworming tablets twice a year, significantly reducing intestinal worm infections, a direct cause of anemia and malnutrition.
- An estimated 50,000 pregnant women and lactating mothers are getting counseling on Infant and Young Child Feeding through Mother Support Groups in ten upazilas covered by the National Nutrition programme and supported by UNICEF. A total of 2,305 community nutrition promoters (CNP) are facilitating these groups, involving 18,440 community volunteers.

*Updated: April 2009*

---

<sup>12</sup> Bangladesh Iodine Deficiency Disorder / Universal Salt Iodisation Survey, 1993

<sup>13</sup> Bangladesh Iodine Deficiency Disorder / Universal Salt Iodisation Survey, 2005