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# Progress in Bangladesh Towards the Goals of the 1990 World Summit for Children

**In 1990 the representatives of over 150 governments held a World Summit for Children and set goals to improve children's health by 2000. Using data collected over the last decade by the Nutritional Surveillance Project (NSP), this bulletin examines the progress made in rural Bangladesh towards meeting four of the nutritional goals set at the World Summit. Bangladesh has lowered the percentage of vitamin A deficiency among preschool children and has achieved a steady decline in child undernutrition. However, at the end of the decade a large percentage of children in rural Bangladesh were still stunted and underweight, and more than a half of women and children were anemic. Many infants were not exclusively breast-fed for long enough and were not given complementary foods at the right age. This review demonstrates the importance of having high quality surveillance systems to monitor health and nutritional targets. It also provides information that can be used to guide ongoing and future food, health and nutrition policies and programs.**

The Nutrition Surveillance Project (NSP), established by Helen Keller International in collaboration with the Government of Bangladesh, has been operating for more than 10 years. During this period, Bangladesh advanced its social and economic development agenda. However, over the same period, Bangladesh experienced serious disasters, including cyclones in 1991, 1992 and 1994 and a devastating flood in 1998.

Throughout this period, the NSP has been a source of high quality data for decision-makers, program managers, and donor organizations to advocate for policies and programs to improve nutrition and health. In 1990, when the NSP had just started, the World Summit for Children (WSC) established 27 goals to ensure the survival, proctection and development of all children. This bulletin presents the progress made in Bangladesh towards four of the nutritional goals and provides insight on what still needs to be done to improve nutrition in Bangladesh.

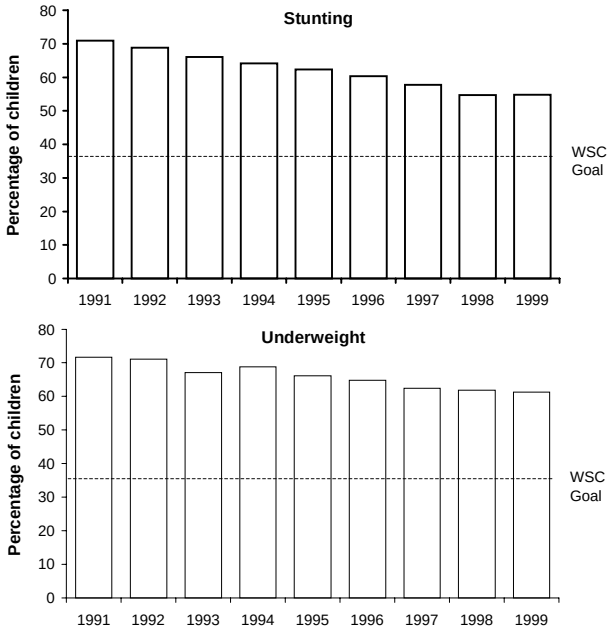
**Child undernutrition**

Undernutrition contributes to more than a half of all childhood deaths (Pelletier *et al.*, 1994) and has long-term consequences for child development. Undernutrition is commonly assessed in terms of the percentage of children who are stunted and underweight when compared with well-nourished and healthy children of the same age and sex.

WSC goal: reduction of severe and moderate undernutrition among under-5 children by one half of 1990 levels

Figure 1 shows how the prevalence of stunting recorded by the NSP fell in rural Bangladesh from 71% in 1991 to 55% in 1999, but illustrates that a further fall of 19% would have been needed to meet the WSC target of about 36%. Over the same period the prevalence of underweight fell from 72% to 61%, requiring a further fall of 25% to meet the WSC target, also of about 36%. Although the prevalence of stunting fell by an average of 1.8% a year

***Figure 1*** *The percentage of stunted children (height-for-age z-score <-2 SD of NCHS median) and underweight children (weight-for-age z-score <-2 SD) aged 6-59 months in rural Bangladesh between 1991 and 1999[1].*




and underweight by 1.2% a year, which is very encouraging, the WSC goals were not met.

*A combination of polices and programs to improve diet quality and quantity, including food policy, targeted food assistance, and health and nutrition interventions, should be promoted to ensure that stunting and underweight continue to decline in the future. Malnutrition among women is also extremely high. Therefore, programs are needed for women during pregnancy and for adolescent girls in order to prevent malnutrition throughout the lifecycle.*

## Vitamin A deficiency disorder

Vitamin A deficiency disorder is associated with an increased risk of illness and deaths among children and is the leading cause of blindness among women and children.

WSC goal: the virtual elimination of vitamin A deficiency and its consequences, including blindness

Data collected during the 1997 National Vitamin A survey by the NSP revealed that the prevalence of reported night blindness in children aged 6 – 59 months had fallen from 3.6% in 1983 to 0.6% (HKI/IPHN, 1999a). This is below the threshold of 1% used to indicate a public health problem. And two years later, in 1999, the prevalence of night blindness reported during NSP surveys was even lower, at only 0.3% (NSP, 2001). The decline in childhood night blindness is largely attributed to the national program to deliver a high potency capsule of vitamin A twice a year to all children aged 12 – 59 months. The coverage of the campaigns since 1996 has been greater than 80% and at the start of the new millennium is averaging around 90% (NSP, 2001).

**Nutritional Surveillance Project (NSP)**

The NSP collects nutrition, health and socioeconomic data every two months from households throughout rural Bangladesh. A multi-stage sampling frame is used to select a random sample of households each survey. From 1990 to 1999, health and nutrition data were collected from children aged 6-59 months in selected households. Children aged less than 6 months and all mothers were included in the sample from February 2000.

Although this success is encouraging, the consequences of a vitamin A deficiency were not fully appreciated when the WSC goals were set. There is now convincing evidence that deficiencies of vitamin A without apparent eye signs are common, and that they contribute to higher rates of illness and death among children, and even among their mothers.

*It is clear that vitamin A capsule programs need to be continued; that high program coverage needs to be sustained; that all opportunities to deliver vitamin A to mothers and children need to be seized; and that other programs to increase vitamin A consumption, such as home gardening, dietary diversification and food fortification, need to be expanded.*

## Iron deficiency anemia

Iron deficiency is the most common micronutrient deficiency in the world today and is the main cause of anemia in areas where there is no malaria. Anemic women are at greater risk of dying and having small babies than those who are not, and iron deficient children have impaired immunity and show poor growth and learning (ACC/SCN, 2000).

Progress in Bangladesh towards this goal cannot be

WSC goal: reduce iron deficiency anemia in women by one third of 1990 levels

assessed because nationally representative data on anemia are not available from the early 1990s. However the data collected by the NSP during the national Vitamin A survey in 1997 revealed that 49.2% of pregnant women and 52.7% of preschool children were anemic (HKI/IPHN, 1999b), prevalence levels that denote a severe public health problem (ACC/SCN, 1997).

Since the WSC goals were established in 1990, considerable evidence has been gathered documenting the serious consequences of anemia, such as impaired cognitive development and growth of children, increased risk of child and maternal morbidity and mortality and lowered work productivity.
As a result, anemia has tremendous and long-lasting harmful consequences for a country's economic growth.

*While programs aimed at improving the intake of iron through the diet should be supported, the high prevalence of anemia among women and children in Bangladesh warrant immediate intervention through supplementation for children and for women during pregnancy and lactation. Internationally, there is growing consensus for programs to combat iron and other nutrient deficiencies simultaneously with multiple micronutrient supplements.*

## Breast-feeding

Exclusive breast-feeding until six months of age and timely introduction of nutrient-rich complementary foods after six months of age supports good growth and development.

WSC goal: empowerment of all women to breast-feed their children exclusively for four to six months and to continue breast-feeding with complementary food, well into the second year.

Data collected by the NSP in February 2000 and shown in Figure 2 reveal that only 55% of all infants less than 6 months old were exclusively breast-fed. The survey also found that over 20% of children aged 6-9 months were given only liquids such as animal milk or rice water, while 6% received no complementary foods at all, suggesting that they were

***Figure 2.*** *The percentage of children in rural Bangladesh who were exclusively breast-fed and partially breast-fed by age in February 2000.*

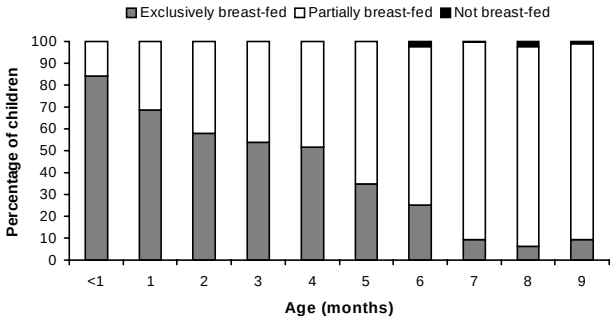
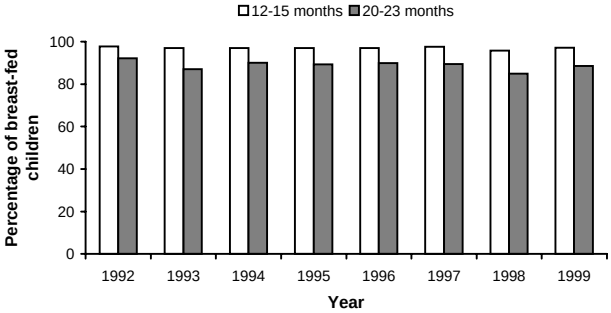



***Figure 3.*** *The percentage of breast-fed children aged 12-15 months and 20-23 months in rural Bangladesh in 1992-1999[1].*




still exclusively breast-fed. The picture in terms of prolonged breast-feeding is better. Over 97% of children were still breast-fed at the start of their second year and, although Figure 3 shows that this fell both with age and over the 8 years between 1992 and 1999, about 90% of children in 1999 were still breast-fed as they neared their second birthday.

*Programs should support women to exclusively breast-feed children up to six months of age. In addition, programs that increase availability and access to micronutrient-rich complementary foods are needed (e.g. food fortification, homestead food production).*

## Conclusions

The improvements in the nutrition of young Bangladeshi children recorded by the NSP are substantial and encouraging. These improvements were paralleled by important economic and social gains in Bangladesh during the 1990s. However, the rates of malnutrition among women and children in Bangladesh remain among the highest in the world, thus more needs to be done. There is little doubt of the value of vitamin A supplements, for mothers as well as young children, and programs should not be

[1]Values for 1997 comprise data collected during February, April and June only as the 1997 National Vitamin A survey replaced the NSP surveys in August, October and December 1997.

abandoned or else the gains of the last decade may be lost. But the emphasis on delivering supplements should not detract from longer-term efforts to diversify diets and promote food fortification.

This report also demonstrates the importance of having technically sound data collection systems in place to monitor the nutrition and health status of women and children, which can be used to guide decisions for food, health and nutrition polices and programs. By examining the achievements of the last decade realistic goals can be set for the future. A special session of the United Nations is to be held in September 2001 to review progress towards the goals of the 1990 World Summit for Children and set new targets. As this report demonstrates, information provided by the NSP can be used to assess such goals and to shape them.

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