

Summaries of country case studies

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The following are summaries of country case studies that were presented at a workshop on “Successful Micronutrient Programs” held at the International Union of Nutritional Sciences, Vienna, August 2001.

The complete texts of the case studies are available at www.inffoundation.org. No summaries or texts are available for the case studies from India and Myanmar.

1. Bangladesh

Fighting micronutrient malnutrition in Bangladesh: Progress made over the past decade

M. Hossain and T. Hussain

In the past decade, Bangladesh has made substantial improvement in food production. However, people still suffer from imbalance in nutrient intake, characterized by protein and micronutrient deficiencies. From 1991 to 1999, among children under five years of age, the prevalence of stunting decreased from 71% to 55%, and the prevalence of underweight decreased from 72% to 61%. Women had, in 1991–1999, an average pregnancy weight gain of less than 6 kg. Over half of the adult population was undernourished during this time, with 10% suffering from severe malnutrition.

The government operates nationwide programs for the control of vitamin A deficiency, iodine-deficiency disorders, and iron-deficiency anemia. However, control of iron-deficiency anemia is still unsatisfactory. Vitamin A deficiency was a huge problem, with 3.6% of children six to nine months of age having nutritional blindness during 1982–83. In 1999, the prevalence of nutritional blindness was 0.3%, and vitamin A capsule distribution coverage was almost 100%. However, some children (22%) still have low (< 20 µg/dl) serum retinol concentrations, and 2.7% of lactating moth-

ers and 1.7% of nonpregnant, nonlactating women have night-blindness. The rate of usage of iodized salt is satisfactory (> 85%). However, a substantial number of poor and uninformed people still use cheaper noniodized salt, which comes through illegal importation from neighboring India. Iron-deficiency anemia in Bangladesh is estimated to cause an annual loss equivalent to 2% of the gross domestic product. Although recent nationally representative data on iron-deficiency anemia control programs are not available, a 1997 report concluded that 49% of pregnant women and 53% of preschool children were anemic. Because of programmatic difficulties in the current methods of iron distribution and patient compliance, the emerging food-fortification technology may be a good alternative. However, wheat flour as a food vehicle will not be a universal choice here; the possibilities for rice or potato need to be investigated.

Bangladesh has positive cultures, policies, programs, and institutions to support breastfeeding. Prolonged breastfeeding up to the second year of life is common (97%); but both early and late starting of complementary feeding are still problems. The rate of exclusive breastfeeding in the first six months is 55%; some infants (22%) are given only liquids or rice water in addition to breastmilk, while 6% receive

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no complementary food at all. Despite reasonable achievements to solve various nutritional problems, Bangladesh still shows the highest level of malnutrition in the world. Therefore, the country needs large-scale studies to get a clear picture of the dimension and

nature of the nutritional problems. Capacity building of the existing nutrition institutions of the country is urgently needed. There is an opportunity for the whole world to learn from Bangladesh through working with the local institutions.

2. Cambodia

The micronutrient-deficiency control program in Cambodia

O. Poly

Interventions to address micronutrient deficiencies are somewhat recent in Cambodia, with broad application of micronutrient interventions dating from the mid-1990s. Experience is still being gained from implementation of iodized salt, vitamin A, and iron supplementation interventions in Cambodia. Some data are available for assessment of program coverage or impact.

Efforts to establish a national program to address iodine deficiency began largely in response to documentation of the extent of the problem. The results from the first national goiter survey (1996–97) indicated that 17% of children 8 to 12 years of age were iodine deficient. Shortly thereafter, a national subcommittee consisting of 8 governmental ministries, 12 international agencies, and several local nongovernmental organizations was formed. The national program for salt iodization began in 1999, with the subcommittee participating in program areas related to legislation, monitoring, and quality control, as well as in the development of educational and training materials to promote the use of iodized salt. A Demographic and Health Survey in 2001 showed only 13% of households using iodized salt, a finding that contributed to a new thrust (with UNICEF support) to promote its use.

Development of the national vitamin A–supplementation program was also catalyzed largely by the results of a national survey that documented the extent of the problem. Soon after the prevalence findings from a 1993 vitamin A survey were reported, the first national vitamin A policy and implementation document was adopted by the government. This early policy

document recommended universal vitamin A capsule supplementation to children between the ages of six months and six years two times per year. More recently, the national policy has changed to include vitamin A supplementation to women during their first few weeks postpartum. Over the course of program implementation, the distribution system for vitamin A capsules has also transitioned. With the phaseout of national immunization days, capsule distribution began to be linked more strongly with routine immunization outreach and routine health services, including immunization and maternal health services, as well as during supplemental distribution campaigns such as school health days and bed net distribution interventions.

Cambodia's policy for addressing iron deficiency is iron supplementation to pregnant women, with delivery through the antenatal system for health care. However, recent initiatives demonstrate government concern for addressing anemia among demographic groups wider than pregnant women. In 2001, the Ministry of Health, in cooperation with the Ministry of Social Affairs and with the support of the World Health Organization (WHO) and UNICEF, launched a one-year study in select communities to introduce a program of preventative iron supplementation to women of reproductive age and to secondary-school girls, complemented by social marketing and health-education campaigns. The objectives of the study include assessing the effectiveness of weekly iron supplementation in improving the knowledge, attitudes, and practices as well as the hemoglobin status of women of reproductive age and secondary-school girls. On the basis of this study, it is planned to extend the iron supplementation program.

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