

# Scaling up: Adequate nutrition for mothers, newborns and children

Undernutrition is the underlying factor in up to 50 per cent of under-five deaths, and there is evidence of links between a mother's nutritional status and the risk of maternal and child death. Among the developing countries and territories, more than one quarter of children under age five were moderately or severely underweight or stunted in 2000–2006, and 28 per cent of children aged 6–59 months were still not receiving vitamin A supplementation in 2005.

Food security, though necessary, is insufficient by itself to avert undernutrition, as evidenced by the many children who have been found to be underweight or stunted in food-secure or non-poor environments. Undernutrition results from an array of interrelated factors, including inappropriate feeding and care practices, inadequate sanitation, disease, poor access to health services, and weak knowledge of the benefits of exclusive breastfeeding, complementary feeding practices and the role of micronutrients. Diarrhoea, which often results from poor sanitation facilities and hygiene practices, is a contributing factor to undernutrition. Another contributing factor to undernutrition among infants and young children is the lack of supportive environments for many mothers, who may have limited time to care for themselves during pregnancy, or for their infants, due to household demands and insufficient access to health services.

Scaling up effective nutrition strategies across a continuum of care for mothers, newborns and children demands an integrated approach. It requires the sustained engagement of parents and communities, supported by local and national development of primary health care and environmental health services, particularly water and sanitation. When these prerequisites are in place, they can lead to remarkable results in a relatively short time. In Thailand, for example, moderate and severe undernutrition were reduced through such means by 75 per cent or more in a decade. And, in spite of considerable economic setbacks, many developing countries have made impressive progress in providing essential vitamins and minerals to their citizens. Nearly 70 per cent of households in developing countries consume iodized salt, about 450 million children now receive vitamin A capsules, and health strategies, particularly community partnerships, are employing new and innovative ways to promote and support breastfeeding.

Undernutrition in the developing regions is highest in South Asia, which has the highest rates of infants with

low birthweights and of children under five who are moderately or severely underweight, wasted or stunted – and the lowest rates of vitamin A supplementation. Although sub-Saharan Africa has moderately better numbers for these indicators, it is the region with the lowest rates of exclusive breastfeeding for infants under six months, and severe acute undernutrition remains a pressing problem. The country examples below illustrate ways in which these issues are successfully being addressed in the region.

## **Benin: Teaching mothers about the importance of breastfeeding**

In Benin, the 1996 Demographic and Health Survey (DHS) reported that only about 16 per cent of newborns in the Borgou Region were breastfed within the first hour, and in 1998 less than 1 in 5 infants under four months old, or 14 per cent, benefited from exclusive breastfeeding. To address this challenge, as well as some of the broader nutritional challenges associated with the high rates of malnutrition and infant mortality, the Essential Nutrition Actions programme was introduced in 1997. In order to reinforce essential nutrition-related behaviours, the programme emphasized six measures in health facilities and communities:

- Exclusive breastfeeding for infants up to 6 months.
- Appropriate complementary feeding with continued breastfeeding from 6–24 months.
- Vitamin A supplementation for children.
- Iron and folic acid supplementation for pregnant women.
- Iodized salt supplementation.
- Support and counselling for undernourished and sick children.

Essential Nutrition Actions has effectively combined measures designed to strengthen the health system, such as training for health workers, with community mobilization and a large-scale communications campaign tailored to the specific conditions of the target populations.

Community leaders were actively involved in selecting community volunteers, known as *relais communautaires*, who provided the link between communities and health facilities and were trained in nutrition activities. Youth, traditional singers, community theatre groups, and women's and other community groups participated

in workshops to develop messages and materials. Community theatre groups performed dramas in villages and neighbourhoods, while community radio stations broadcast spots, games and dramas developed in the workshops.

This vast community mobilization led to a genuine change in breastfeeding behaviour among mothers. In 2001, nearly 50 per cent of mothers with infants under four months old in these areas reported that their babies were exclusively breastfed. Furthermore, in 2002, selected communities in Borgou reported exclusive breastfeeding of infants under four months of 61 per cent, compared to 40 per cent in 1999.

## **Community-based management of severe acute undernutrition in Ethiopia, Malawi and Sudan**

Severe acute undernutrition remains a major killer of children under five years of age. Until recently, treatment has been restricted to facility-based approaches, greatly limiting its coverage and impact, because in many poor countries children who are severely malnourished are never brought to a health facility. New evidence suggests, however, that large numbers of these children can be treated in their communities without being admitted to a health facility or a therapeutic feeding centre. The community-based approach involves timely detection of severe acute undernutrition in the community and provision of treatment for those without medical complications with ready-to-use therapeutic foods or other nutrient-dense foods at home. If properly combined with a facility-based approach for those undernourished children with medical complications and implemented on a large scale, community-based management of severe acute undernutrition could prevent the deaths of hundreds of thousands of children.

Recent evidence from Ethiopia, Malawi and Sudan illustrates the high impact and cost-effectiveness of community-based management of severe acute malnutrition. In contrast to treatment in health facilities – where in most developing countries fatality rates have remained largely unchanged for the past five decades – community-based therapeutic care has brought about a fundamental shift in the understanding of the disease and the implementation of treatment. To date, data from more than 20 programmes implemented in Ethiopia, Malawi, and North and South Sudan between 2000 and 2005 indicate these programmes achieved recovery rates of almost 80 per cent and reduced mortality rates to as little as 4 per cent. Coverage rates reached 73 per cent, while more than

three quarters of the severely undernourished children who presented were treated solely as outpatients. Furthermore, initial data indicate these programmes are affordable, with costs varying between US\$12 and US\$132 per year of life gained.

Community-based therapeutic care programmes use new, ready-to-use therapeutic foods that in many cases are made locally from local crops. Their implementation is based on three premises:

- Underlying all programmes is a strong emphasis on the importance of early care in the evolution of malnutrition and the need for patients to remain in a nutritional programme until recovery.
- Programmes start from the assumption that in order to present early and comply with treatment, families and communities must understand, accept and participate in the programmes.
- Programmes focus on the involvement of key stakeholders who can benefit from the feedback and attention successful programmes generate and thus have a stake in their long-term sustainability.

The results of community-based programmes to address severe acute undernutrition suggest that, even though they cannot eliminate the need for external assistance, scaled-up treatment can have a major public health impact, preventing hundreds of thousands of child deaths.