EXECUTIVE SUMMARY

The global community has designated halving the prevalence of underweight children by 2015 as a key indicator of progress towards the Millennium Development Goal (MDG) of eradicating extreme poverty and hunger. Economic growth alone, though impressive, will not reduce malnutrition sufficiently to meet the nutrition target. If this is to be achieved, difficult choices about how to scale up and reform existing nutrition programs or introduce new ones have to be made by the Government of India and other agencies involved in nutrition in India.

Several factors are converging to make a review of the Integrated Child Development Services (ICDS) program timely. These include the launch of the Government of India's National Health Mission and a National Nutrition Mission in fiscal year 2005-2006; the decision to target improving nutrition outcomes as part of the MDGs; the findings of the Copenhagen Consensus project which identified several nutrition interventions as some of the most high-yielding of all possible development investments; and the Government of India's pledge, in its February 2005 Budget speech, to expedite the expansion of the ICDS program.

The World Bank has supported efforts to improve nutrition in India since 1980 with mixed results. This report aims at helping those who have to make difficult policy decisions, by providing information on the characteristics of child malnutrition across regions and over time and on the effectiveness of the ICDS program in addressing the causes and symptoms of undernutrition. The most important mismatches between what an effective, efficient and equitable program should do to reduce child undernutrition and what is currently being done are identified and possible options to resolve them are presented.

Approximately 60 million children are underweight in India. Given its impact on health, education and productivity, persistent undernutrition is a major obstacle to human development and economic growth in the country, especially among the poor and the vulnerable, where the prevalence of malnutrition is highest. The progress in reducing the proportion of undernourished children in India over the past decade has been modest and slower than what has been achieved in other countries with comparable socioeconomic indicators. While aggregate levels of undernutrition are shockingly high, the picture is further exacerbated by the significant inequalities across states and socioeconomic groups – girls, rural areas, the poorest and scheduled tribes and castes are the worst affected – and these inequalities appear to be increasing.

In India, child malnutrition is mostly the result of high levels of exposure to infection and inappropriate infant and young child feeding and caring practices, and has its origins almost entirely during the first two to three years of life. However, the commonly-held assumption is that food insecurity is the primary or even sole cause of malnutrition. Consequently, the existing response to malnutrition in India has been skewed towards food-based interventions and has placed little emphasis on schemes addressing the other determinants of malnutrition.

India's main early child development intervention, the Integrated Child Development Services program, has been sustained for about 30 years and has been successful in many ways. However, it has not yet succeeded in making a significant dent in child malnutrition. This is mostly due to the priority that the program has placed on food supplementation rather than on nutrition and health education interventions, and because of the fact that the program targets children mostly after the age of three when malnutrition has already set in. Interventions to address good caring behaviors, which have been proven to be cost-effective in many places, including India, require substantial development of the skills of grass-roots workers and an efficient management system. Although there has been progress towards providing training and skill development, much of the emphasis has been on universalizing the program rather than on strengthening the quality of its implementation and monitoring in a way that increases its impact. Transforming ICDS into an intervention that effectively combats undernutrition will yield huge benefits for India, both in terms of human development and economic returns, but will require substantial changes in the program's design and implementation. In particular, public investments in ICDS should be redirected towards the younger children (0-3 years) and the most vulnerable population segments in those states and districts where the prevalence of undernutrition is higher. The focus should be on those ICDS components that directly address the most important causes of undernutrition in India, specifically improving mothers' feeding and caring behavior, improving household water and sanitation, strengthening the referral to the health system and providing micronutrients.

The report consists of three chapters. A short summary of each is presented below.

CHAPTER 1

The consequences of child undernutrition for morbidity and mortality are enormous – and there is, in addition, an appreciable impact of undernutrition on productivity so that a failure to invest in combating nutrition reduces potential economic growth. In India, with one of the highest percentages of undernourished children in the world, the situation is dire. Moreover, inequalities in undernutrition between demographic, socioeconomic and geographic groups increased during the 1990s. More, and better, investments are needed if India is to reach the nutrition MDGs. Economic growth will not be enough.

Undernutrition, both protein-energy malnutrition and micronutrient deficiencies, directly affects many aspects of children's development. In particular, it retards their physical and cognitive growth and increases susceptibility to infection and disease, further increasing the probability of being malnourished. As a result, malnutrition has been estimated to be associated with about half of all child deaths and more than half of child deaths from major diseases, such as malaria (57 percent), diarrhea (61 percent) and pneumonia (52 percent), as well as 45 percent of deaths from measles (45 percent). In India, child malnutrition is responsible for 22 percent of the country's burden of disease. Undernutrition also affects cognitive and motor development and undermines educational attainment; and, ultimately impacts on productivity at work and at home, with adverse implications for income and economic growth. Micronutrient deficiencies alone may cost India US$2.5 billion annually.

The prevalence of underweight among children in India is amongst the highest in the world, and nearly double that of Sub-Saharan Africa. Most growth retardation occurs by the age of two, in part because around 30 percent of Indian children are born with low birth weight, and is largely irreversible. In 1998/99, 47 percent of children under three were underweight or severely underweight, and a further 26 percent were mildly underweight such that, in total, underweight afflicted almost three-quarters of Indian children. Levels of malnutrition have declined modestly, with the prevalence of underweight among children under three falling by 11 percent between 1992/93 and 1998/99. However, this lags far behind that achieved by countries with similar economic growth rates.

Disaggregation of underweight statistics by socioeconomic and demographic characteristics reveals which groups are most at risk of malnutrition. Underweight prevalence is higher in rural areas (50 percent) than in urban areas (38 percent); higher among girls (48.9 percent) than among boys (45.5 percent); higher among scheduled castes (53.2 percent) and scheduled tribes (56.2 percent) than among other castes (44.1 percent); and, although underweight is pervasive throughout the wealth distribution, the prevalence of underweight reaches as high as 60 percent in the lowest wealth quintile. Moreover, during the 1990s, urban-rural, inter-caste, male-female and inter-quintile inequalities in nutritional status widened.

There is also large inter-state variation in the patterns and trends in underweight. In six states, at least one in two children are underweight, namely Maharashtra, Orissa, Bihar, Madhya Pradesh, Uttar Pradesh, and Rajasthan. The four latter states account for more than 43 percent of all underweight children in India. Moreover, the prevalence in underweight is falling more slowly in the high prevalence states. Finally, the demographic and socioeconomic patterns at the state level do not necessarily mirror those at the national level (e.g. in some states, inequalities in underweight are narrowing and not widening, and in some states boys are more likely to be underweight than girls) and nutrition policy should take cognizance of these variations.

Undernutrition is concentrated in a relatively small number of districts and villages with a mere 10 percent of villages and districts accounting for 27-28 percent of all

underweight children, and a quarter of districts and villages accounting for more than half of all underweight children, suggesting that future efforts to combat malnutrition could be targeted to a relatively small number of districts/villages.

Micronutrient deficiencies are also widespread in India. More than 75 percent of preschool children suffer from iron deficiency anemia (IDA) and 57 percent of preschool children have sub-clinical Vitamin A deficiency (VAD). Iodine deficiency is endemic in 85 percent of districts. Progress in reducing the prevalence of micronutrient deficiencies in India has been slow - IDA has not declined much, in part due to the high prevalence of hookworm, and reductions in subclinical VAD slowed in the second half of the 1990s, despite earlier gains. As with underweight, the prevalence of different micronutrient deficiencies varies widely across states.

Economic growth alone is unlikely to be sufficient to lower the prevalence of malnutrition substantially – certainly not sufficiently to meet the nutrition MDG of halving the prevalence of underweight children between 1990 and 2015. It is only with a rapid scaling-up of health, nutrition, education and infrastructure interventions that this MDG can be met. Additional and more effective investments are especially needed in the poorest states.

CHAPTER 2

India's primary policy response to child malnutrition, the Integrated Child Development Services (ICDS) program, is well-conceived and well-placed to address the major causes of child undernutrition in India. However, more attention has been given to increasing coverage than to improving the quality of service delivery and to distributing food rather than changing family-based feeding and caring behavior. This has resulted in limited impact.

The ICDS has expanded tremendously over its 30 years of operation to cover almost all development blocks in India and offers a wide range of health, nutrition and education services to children, women and adolescent girls. However, while the program is intended to target the needs of the poorest and the most undernourished, as well as the age groups that represent a significant "window of opportunity" for nutrition investments (i.e. children under three, pregnant and lactating women), there is a mismatch between the program's intentions and its actual implementation.

Key mismatches are that:

(i) The dominant focus on food supplementation is to the detriment of other tasks envisaged in the program which are crucial for improving child nutritional outcomes. For example, not enough attention is given to improving child-care behaviors, and on educating parents how to improve nutrition using the family food budget;

(ii) Service delivery is not sufficiently focused on the youngest children (under three), who could potentially benefit most from ICDS interventions. In addition, children from wealthier households participate much more than poorer ones and ICDS is only partially succeeding in preferentially targeting girls and lower castes (who are at higher risk of undernutrition);

(iii) Although program growth was greater in underserved than well-served areas during the 1990s, the poorest states and those with the highest levels of undernutrition still have the lowest levels of program funding and coverage by ICDS activities.

In addition to these mismatches, the program faces substantial operational challenges. Inadequate worker skills, shortage of equipment, poor supervision and weak M&E detract from the program's potential impact. Community workers are overburdened, because they are expected to provide pre-school education to four to six year olds as well as nutrition services to all children under six, with the consequence that most children under three—the group that suffers most from malnutrition—do not get micronutrient supplements, and most of their parents are not reached with counseling on better feeding and child care practices.

However, examples of successful interventions (Bellary district in Karnataka) and innovations/variations in ICDS from several states (the INHP II in nine states, the Dular scheme in Bihar and the TINP in Tamil Nadu) suggest that the potential for better implementation and for impact does exist.

CHAPTER 3

Urgent changes are needed to bridge the gap between the policy intentions of ICDS and its actual implementation. This is probably the single biggest challenge in international nutrition, with large fiscal and institutional implications and a huge potential long-term impact on human development and economic growth.

ICDS was designed to address the multidimensional causes of malnutrition. As the program has expanded to reach more and more villages, it has tremendous potential to impact positively on the well-being of the millions of women and children who are eligible for participation. The key constraint on its effectiveness is that its actual implementation deviates from the original design. There has been an increasing emphasis on the provision of supplementary feeding and preschool education to children four to six years old, at the expense of other components that are crucial for combating persistent undernutrition. Because of this, most children under three—the group that suffers most from malnutrition—are not reached, and most of their parents do not receive counseling on better feeding and child care practices. Realizing ICDS' potential, however, will require substantial commitment and resources in order to realign its implementation with its original objectives and design:

- The first immediate step should be to resolve the current ambiguity about the priority of different program objectives and interventions;

- To reduce malnutrition, ICDS activities need to be refocused on the most important determinants of malnutrition. Programmatically, this means emphasizing disease control and prevention activities, education to improve domestic child-care and feeding practices, and micronutrient supplementation. Greater convergence with the health sector, and in particular the Reproductive and Child Health (RCH) program, would help tremendously in this regard;

- Activities need to be better targeted towards the most vulnerable age groups (children under three and pregnant women), while funds and new projects need to be redirected towards the states and districts with the highest prevalence of malnutrition;

- Supplementary feeding activities need to be better targeted towards those who need it most, and growth-monitoring activities need to be performed with greater regularity, with an emphasis on using this process to help parents understand how to improve their children's health and nutrition;

- Involving communities in the implementation and monitoring of ICDS can be used to bring in additional resources into the *anganwadi* centers, improve quality of service delivery and increase accountability in the system;

- Monitoring and evaluation activities need strengthening through the collection of timely, relevant, accessible, high-quality information — and this information needs to be used to improve program functioning by shifting the focus from inputs to results, informing decisions and creating accountability for performance.