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INTERNATIONAL SUCCESS STORIES IN REDUCING UNDERNUTRITION: STRATEGIC CHOICES, POLICY ACTIONS AND LESSONS

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Thailand, Brazil and Vietnam are examples of developing countries that have successfully reduced undernutrition. While each country used its own set of policies, strategies and approaches to address undernutrition, there are common elements which contributed to successes. This note synthesizes lessons from these country case studies for consideration to improve nutrition in India.

The overall burden of stunting in developing countries is estimated to have reduced from 40 percent to 29 percent.[1] Reductions in undernutrition have not always demonstrated a direct relationship with economic development and progress of various countries indicates that there is no one solution to improving nutrition.[2] This note focuses on the policies and approaches adopted by three developing countries–Thailand, Brazil and Vietnam that have successfully reduced undernutrition; and synthesizes the key lessons of significance to the Indian context.

Thailand–the community-based approach

Thailand is the earliest success story of achieving significant reductions in undernutrition.[3,4,5] Prevalence of underweight children below five years of age declined sharply from 50 percent in 1982 to below 20 percent in 1991, and severe and moderate malnutrition was virtually eliminated. By 2006, the prevalence had declined to less than 10 percent (Figure 1).[6]

Figure I: Trends in prevalence of underweight in children under 5: Thailand

Source: Nutrition Divison, MoPH, Thailand
Data of First quarter of each fixcal year (Oct.-Dec)

Thailand's strong political commitment and consensus at national and local levels for nutrition, and positioning of nutrition as an investment for the country's future rather than as mere welfare expenditure, was key to making this remarkable transformation possible.

Thailand initiated action to address undernutrition during 1977-81.[4] Reducing child malnutrition was made an explicit goal in the national policy for poverty alleviation. In line with this approach, the government initiated integrated community-based programs, of which nutrition was a part. Strategic program planning both at micro and macro levels included clear goals with a clear set of responsibilities for representatives of health, agriculture, education and rural development sectors. Nutrition interventions were integrated not only with the existing primary health care activities but also with overall community development initiatives.

This community-based approach emphasized service providers teaming with community leaders and community volunteers; the latter being well-respected individuals selected by the community. The volunteers, each responsible for about 10 to 20 households, played a key role in mobilizing communities, providing regular counseling and support to caregivers to improve feeding, care and hygiene practices, and in the prevention and treatment of disease. Promotion of a culture that involved women in decision making, presence of community-based organizations and charismatic community leaders, and parallel implementation of poverty alleviation programs facilitated as well as supplemented the community-based approach.[6] Technical capacity of various stakeholders was strengthened for effective implementation of the program.[5] Establishment of a strong technical support

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institution was central to sustaining the commitment for nutrition and contributed to Thailand's success.

In 1986, Thailand adopted a Basic Minimum Needs (BMN) approach which used simple indicators for village-based social planning.[5] The BMN approach included both process and outcome indicators. While process indicators comprised immunization and antenatal service coverage and availability of potable water and sanitary services, the outcome indicators included rates for child malnutrition, low birth weight and micronutrient deficiencies.[3]

In sum, a combination of high political commitment, sustained integrated action, strong social mobilization and community ownership, focused program implementation and systematic monitoring was central to the strategy.

Brazil–addressing the underlying determinants of undernutrition

The experience of Brazil in improving maternal and child nutrition is yet another success story. In the 33-year period between 1974-2007, Brazil effectively reduced prevalence of stunting in children under five years of age from 37.1 percent to 7.1 percent–a reduction of almost 80 percent.[2,7] The greatest reductions were achieved in the poorest areas of Brazil and among the poorest quintile. In the poorest quintile, prevalence of stunting fell from 59 to 11.2 percent, whereas it declined from 12.1 to 3.3 percent in the wealthiest quintile.

Brazil chose to address the underlying socio-economic determinants of stunting as opposed to focusing only on direct interventions for improving diet and reducing illness.[2,7] Success is attributed to four factors: increased maternal schooling, improved purchasing power of families with equity oriented public policies, expansion in provision of health care, and better sanitation. Coverage of potable water and sewerage increased to 80 and 50 percent respectively by 1980, and immunization coverage trebled between 1975 and 1988. Investments in both health and food also increased substantially.[2,8]

As a result of strong political will, 2000 onwards Brazil furthered its policy instruments to improve nutrition. It launched a set of policies and strategies that included the Zero Hunger Strategy, the Federal Law for Food and Nutrition Security, and the National Council on Food and Nutrition Security (CONSEA) reporting directly to the President of Brazil. The policy on Food and Nutrition Security was broad based and included strategies for improving family-owned agriculture, local food banks, community kitchens, school meals and promotion of healthy food habits.[8]

In 2003, a number of Conditional Cash Transfer (CCT) programs were merged into one program, the *Bolsa Familia Program* (BFP) with the objective of breaking the inter-generational cycle of poverty.[2,7,8] The program targeted poor families and provided cash transfers with health and education conditionalities. Additionally, initiatives such as the Family Health Strategy, Food and Nutrition Surveillance System, and distribution of micronutrients as a part of basic health services, were launched. The success of this approach is demonstrated by the fact that children from families exposed to BFP were 26 percent more likely to have normal weight-for-age than those from non-exposed families.

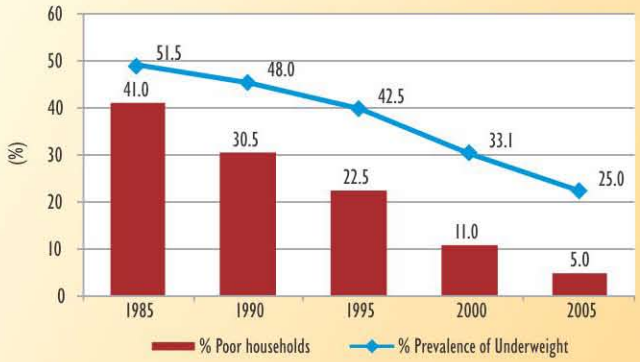
Through these CCT programs, a combination of pathways comprising of increased income and access to food, enhanced maternal control on child care and feeding, improved sanitation and environment, as well as greater use of health services possibly influenced improvement in nutrition. The CCT was supported by a robust monitoring and evaluation culture which strengthened the provision of incentives, supported correction of policy actions and helped in scaling up the program.

Vietnam–addressing undernutrition as an integral component of socio-economic development

The experience of Vietnam from the 1990s presents a unique case study of reducing child undernutrition through policy interventions and changes in the health sector during a period marked by rapid economic growth and transition to a market economy.[9] Figure 2 shows that the percentage of underweight children in Vietnam declined from 51.5 percent in 1985 to 33 percent in 2000 and further to 24.6 percent in 2006, an average decrease of 1.3 percent per year.[9,10]

Vietnam's key policy instruments that made this rapid reduction in undernutrition possible included the economic reforms introduced in 1986, and the well-structured child health and family planning programs that emphasized increased investments in nutrition activities. Nutrition goals were included in the country's Socio-economic Development Plan with almost one-fourth of the health budget being allocated to nutrition despite it being only one of the ten target programs. Vietnam launched the Hunger Eradication and Poverty Reduction program (HEPR) in 1992 and implemented its first national nutrition strategy in the form of the ratified National Plan of Action for Nutrition (NPAN1) during 1995-2000. The strategy not only raised awareness and built commitment of authorities at various levels, it also sought active participation of various groups such as women's and youth unions, and farmer associations in targeting mothers and children.[10,11,12] Since 2006, a special focus on improving nutrition status of mothers was added to the policy. A Child Malnutrition Control Program, designed to educate every woman and newly married couple on proper nutrition, weight monitoring during pregnancy, importance of birth weights and infant/young child feeding practices, was implemented.[13] In addition, the program also encouraged diversity in diets through

Figure 2: Prevalence of underweight in children under 5 and percentage of poor households: Vietnam



Source: Hop L T and Khan N C. 2002. (Asis Pacific Journal of Clinical Nutrition(Suppl): S331 -S334)

production and apt usage of food at the household level.

The income growth and reduction in poverty coupled with progressive nutrition and health policy changes of 1990s, contributed to the decline in undernutrition rates. The successful family planning program helped reduce fertility rates from 3.1 percent in 1994 to 2.3 percent in 2002. This possibly improved investments of families in child nutrition and health care. Targeted maternal and child health programs resulting in improved immunization coverage, control of diarrhoeal diseases and respiratory infections, had a cumulative effect. Performance to meet the nutrition targets was monitored closely by a newly established National Institute of Nutrition.[9]

Thereafter, reducing child malnutrition remained a high priority. The 10th Party Conference's Document testified to the government's commitment to reduction in child malnutrition. Government and local budgets were mobilized and each sector was assigned responsibility to take into consideration objective of improving nutrition status in their plans and inter-sectoral coordination and collaboration was promoted.[13]

Key Lessons for India

The diverse country approaches described above share common elements which contributed to their success in improving nutrition. The following lessons emerging from these success stories are highly relevant to India, especially in the current environment of its renewed commitment to improve nutrition.

a) Commitment of leadership: Commitment of the leadership and at the highest level for reducing and preventing undernutrition is key to the success of any policy instrument. Commitment must be coupled with substantial investments to keep nutrition high on the development agenda. The recent 'Mission' approach adopted by a few states in India with special budget allocation, portends a focused, accelerated effort for reducing undernutrition.

b) Comprehensive national nutrition strategy: Sustained reduction in undernutrition in a rapidly changing economic scenario calls for simultaneous investments to address both the immediate and underlying causes of undernutrition. Along with promoting the direct nutrition interventions, e.g., behavior change for infant young child feeding and caring practices, micronutrient interventions, and environmental sanitation, protecting food security of the poorest and the disadvantaged, as well as social and economic empowerment of women to reduce poverty, gender bias and household violence, are critical. An explicit, comprehensive, multi-sector, community-based nutrition strategy which reaches the poor and marginalized is crucial. Additionally, actions for addressing undernutrition in the highest wealth quintile are also worthy of attention.

c) Explicit focus on maternal nutrition and women's development: It is imperative for programs to, besides pregnant and nursing women, reach all prospective mothers in the pre-pregnancy state with an education package that provides the critical knowledge of self and child care, family planning, and nutrition and health. Education of girls, especially their retention in schools is important. Further, existing public health and nutrition programs, the Integrated Child Development Services (ICDS), and the Reproductive and Child Health (RCH) Program of the National Rural Health Mission (NRHM) must promote maternal and child nutrition, especially amongst the poorest and marginalized. In this context, revising the key result areas of Accredited Social Health Activists (ASHAs) to also promote such behaviors may be explored.

d) Addressing Low Birth Weight (LBW): Given that almost a third of newborns in India are of LBW or undernourished because of intra-uterine growth restriction, a targeted strategy for lowering LBW incidence is essential. The recent, significant increase in uptake of antenatal services and institutional deliveries in India offers scope to promote key maternal nutrition and health interventions, as well as identify LBW newborns to provide them with adequate care and systematically promote their growth.

e) Conditional Cash Transfer (CCT) Programs: Globally, social transfer programs such as CCT have demonstrated high acceptance and are an important approach for tackling the immediate and underlying causes of undernutrition. However, these must be targeted towards the most vulnerable and disadvantaged. Moreover, their design must factor in the size of the transfer, the extent to which women, especially pregnant women and young children are targeted, and effective monitoring and payment mechanisms. These are important lessons applicable to the *Indira Gandhi Matriva Sahyog Yojna* (IGMSY) recently launched in select districts of India.

f) Centers to support policy formulation: Both Thailand and Vietnam have established Institutes for Nutrition which play a central role in formulation of nutritional policies as well as in their effective implementation and monitoring. Establishing such centers of excellence for public health nutrition to guide policy and program, as well as support monitoring and nutrition surveillance should be explored.

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