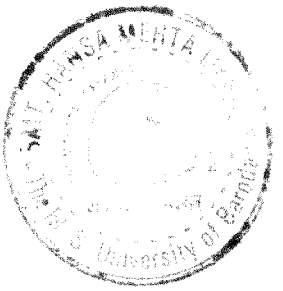


INTRODUCTION

Chapter I
INTRODUCTION

India is a nation where service for public benefit, health and welfare has been an integral part of our cultural ethos. Non-Government Organizations (NGOs) in Gujarat have been supporting the Government in carrying out many of Government schemes including ICDS, in both urban and rural areas. The NGO-Government partnership, if successful can go a long way to reduce the burden of child malnutrition and its adverse consequences through ICDS. But is this partnership successful? This question needs attention. Elucidated in this chapter is the magnitude of the problem of child malnutrition (0-3 years), its adverse consequences and the need to address this burning problem. The role of ICDS and NGOs support for nutrition - health program is described. Finally the role of health systems research to enrich understanding of NGO functioning in ICDS implementation is highlighted.

Prevalence of Undernutrition in Children

Malnutrition is the major underlying cause of 50% of deaths among children. One fourth of the world's children (under 5years) are moderately to severely underweight and nearly one third (31%) are stunted (State of the World's Children 2008). Out of the 146 million underweight children (under 5years) living in developing countries, South Asia accounts for more than half of these children. The trio of India, Pakistan and Bangladesh together account for half the world's underweight children, despite being home to less than one third (29%) of the developing world's under-five population (UNICEF 2006).

Malnutrition in India has been called 'The Silent Emergency'. The proportion of undernutrition among children and women in India is one of the highest in the world. 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. India is committed to halving the prevalence of underweight children by 2015 as one of the key indicators of progress towards the Millennium Development Goal (MDG). 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.

Nearly 31 million children under 3 years of age are underweight (low weight for age) (Technical Group on Population Projection (TGPP), India 2008); this number of malnourished children is equivalent to the entire population of Canada (World Population Prospects 2006). Twenty five and a half million, or 1 in 3 are stunted (low height for age) and 13 million, or 1 in 5 are wasted (low weight for height) (TGPP, RGI India 2008).

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. In spite of unprecedented economic growth, improvements in childhood nutritional status in India over the last decade have been slow.

Table 1.1 Trends in Nutritional Status of Children Under Three years (India)

	NFHS – 3 (2005-06)			NFHS – 2 (1998-99)		
	Urban	**Rural**	**Total**	**Urban**	**Rural**	**Total**
Height-for-Age						
% <-3SD	16.4	23.8	22.0	19.7	30.2	27.7
% <-2SD	37.4	47.2	44.9	41.1	54.0	51.0
Weight-for-Age						
% <-3SD	10.6	17.4	15.8	11.3	19.6	17.6
% <-2SD	30.1	43.7	40.4	34.1	45.3	42.7
Weight-for-Height						
% <-3SD	6.8	8.3	7.9	5.3	7.1	6.7
% <-2SD	19.0	24.1	22.9	16.3	20.7	19.7

Further, in Gujarat the prevalence of underweight (47%) and stunting (42%) among children under 3 years is as high as the national average (NFHS-3 2005-06). According to the Multi Indicator Cluster Sampling Survey (2001) carried out in Vadodara slums, 43% children under five are malnourished.

It is well recognized that the period from birth to two years of age is a "critical window" for the promotion of optimal growth, health and behavioral development. Longitudinal studies have consistently shown that this is the peak age for growth faltering, deficiencies of certain micronutrients, and common childhood illnesses such as diarrhea. Faltering in length extends through the first 40 months of life, though is most pronounced during the first 18 months and faltering in weight is concentrated between 3 and 12 months. Hence, after 12 months weight gain can be adequate even while the process of stunting continues for another two years (Shrimpton 2001, Martorell et al 1994).

Consequences of Malnutrition

Adequate nutrition and health during the first several years of life is fundamental to the attainment of the Millennium Development Goals (MDGs) for child survival and the prevention of malnutrition. It is during infancy and early childhood that irreversible faltering in linear growth and cognitive deficits associated with anemia occur. Productivity losses, poor cognitive development, and increased health care costs in malnourished populations lead to significant economic losses at both the individual and national level (Levinson and Bassett 2007).

Poor nutrition during these critical formative years has both immediate and long-term consequences.

★ Immediate consequences include significant morbidity and mortality and delayed physical and mental development.

★ Long term consequences include impaired intellectual performance, work capacity, and reproductive capacity, and increased risk of chronic diseases (Lutter 2003).

★ In girls and women, it leads to an unending cycle of inter generational malnutrition. When girl children are undernourished, their future ability to bear healthy children is threatened and thus the cycle of malnutrition continues (UNICEF 2006).

Causes of Malnutrition in Children below 3 years

The immediate causes are: poor breastfeeding – complementary feeding practices (contributors of poor energy or nutrient intake), the high prevalence of infections and the downward synergistic spiral of the interaction between undernurtition and infection.

Breastfeeding – Complementary feeding practices

Recommended practice of EBF is prevalent in only 46% mothers in India (NFHS-3). Even more important contributory factor is inadequate intake of complementary foods. Three independent factors are likely to interact to influence intake from complementary foods: child appetite, care giver behaviours, and characteristics of the diet. Child appetite will change depending on the state of nutrition and health. Diarrhoea can reduce intake of complementary foods up to 30% (Martorell 1980). Important care giver behaviours include the level of encouragement provided to the child during feeding, the frequency with which foods are fed, the general quality of the child caregiver interaction, and the environment where feeding takes place. Characteristics of the diet, such as energy density, sweetness, and viscosity are the third factor that affects total energy intake (Dewey and Brown 2003).

Prevalence of infection

The fact that post-natal linear growth begins to falter at birth when energy from breast milk is adequate and continues to falter long after weight gain is normal, suggests that something other than lack of energy is primarily responsible for growth failure. The most plausible causal factors include unidentified aspects of the prenatal environment; and in the post-natal environment, nutritional inadequacies resulting from morbidity and poor nutrition, and the interaction between them (Kramer 2001, Scrimshaw 2003, Brown 2003, Lutter 2003). Diarrhoea and acute respiratory infections are highly prevalent early in life. As a result, their negative effect on nutrition continues.

The underlying factors for young child malnutrition include household food insecurity and poor health services in an unhealthy environment (UNICEF 1990).

Controlling Malnutrition in Children Under Three

A recent authoritative paper on child survival ranked nutrition interventions among the most effective preventive actions for reducing under-five mortality (Jones et al 2003). Promotion of exclusive breastfeeding ranked first and was estimated to have the potential to prevent 1,301,000 or 13% of all deaths. Improved complementary feeding ranked third and was estimated to have the potential to prevent 587,000 or 6% of all deaths.

Recent studies show that counseling on feeding practices in health facilities is effective, not only to improve breastfeeding practices, but also to improve complementary feeding. In Brazil, where the duration of breastfeeding was short and complementary foods were introduced early, counseling in health facilities was associated with the prevention of growth faltering among children older than six months. Improvements in maternal knowledge about complementary feeding, timely introduction of complementary foods, quality of appropriate foods and feeding practices resulted in significant increases in energy and nutrient intakes and growth (Santos et al 2001).

A recent review of evidence of effective community-based strategies for improving breastfeeding practices emphasizes the importance of investing in policies, health system support and community-based interventions to create a supportive environment for optimal infant and young child feeding, growth and development.

A large community-based study in Haryana confirmed that complementary feeding practices can also be improved if information and support are given to families and care givers

through various channels within the health system and the community. The study evaluated the effect of interventions to improve exclusive breastfeeding during the first six months and complementary feeding practices thereafter, and the impact on infant diarrhoeal diseases and growth. The intervention resulted in a substantial improvement in complementary feeding practices. Meal frequencies, energy intake and proportion of mothers who actively fed their children were significantly higher in the intervention group. Intervention group children also had significantly higher lengths at 12 months of age but there was no impact on weight (Bhandari et al 2003).

Integrated Child Development Services (ICDS)

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. 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. 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.

Interventions to promote child feeding and healthcare, good behaviours, which have been proven to be cost- effective in disadvantage households, 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.

Quality of Implementation of ICDS services

Mismatch Between the Program's Intentions and its Actual Implementation

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 are some mismatches in the ICDS schemes (Gragnolati 2006)

1. The dominant focus is on food supplementation which detriments implementation of other tasks 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.

2. Service delivery is not sufficiently focused on the youngest children (under three), who could potentially benefit most from ICDS interventions. 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);
3. 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.

The program has been the subject of a large volume of research (NIPCCD evaluation 1992, 2006; FOCUS study 2006; ICDS III 2006; NCAER 1998). However, most evaluations have focused on the quality of infrastructure and inputs, and the execution of activities. There have been few rigorous evaluations of the program's impact on nutritional status or health behaviors, partly because there are few sources of data that permit the comparison of outcomes among recipients and non-recipients of the program.

As a result, some studies have found that the program is associated with improvements in nutritional status, while other studies have failed to find a positive effect (these evaluation studies have been described in detail in next chapter).

In addition to these mismatches, the program faces substantial operational challenges. Inadequate worker skills, shortage of equipment, poor supervision and weak monitoring and evaluation detract from the program's potential impact. Anganwadi workers are overburdened as they are expected to provide pre-school education to 4-6 year olds as well as nutrition services to all children under six, with the consequence that most children under three do not get micronutrient supplements, and most of their parents are not reached with counseling on better feeding and child care practices.

Do NGOs do a better job of managing ICDS? – A Partnership with the Government

NGOs are increasingly being recognized as partners in national development, in part because they are expected to be efficient and effective; innovative, flexible, independent, and responsive to the problems of poor people at the grass-roots level. (Bagci 2007). The

main characteristics of NGOs are their ability to reach poor communities in remote areas that have few basic resources or infrastructure. Where government services are limited or ineffective; they have the ability to promote local participation in the design and implementation of public programs (Porter 1991).

NGOs in the ICDS system

It has long been realized that the government sector alone in ICDS expansion is inadequate and that there is a need for involving voluntary organizations in its implementation. Hence, a policy of involving the voluntary sector in supplementing government's efforts was enunciated in the Seventh Five Year Plan (Seventh Five Year Plan, GOI 1985). Further, it was realized that if the NGO which was entrusted with managing an ICDS project was also provided health facilities, then the community would receive greater benefits in terms of the health impact.

To understand NGOs implementation of ICDS and the factors responsible for impeding and improving the quality of its implementation, using the Health Systems Research (HSR) Methodology becomes crucial.

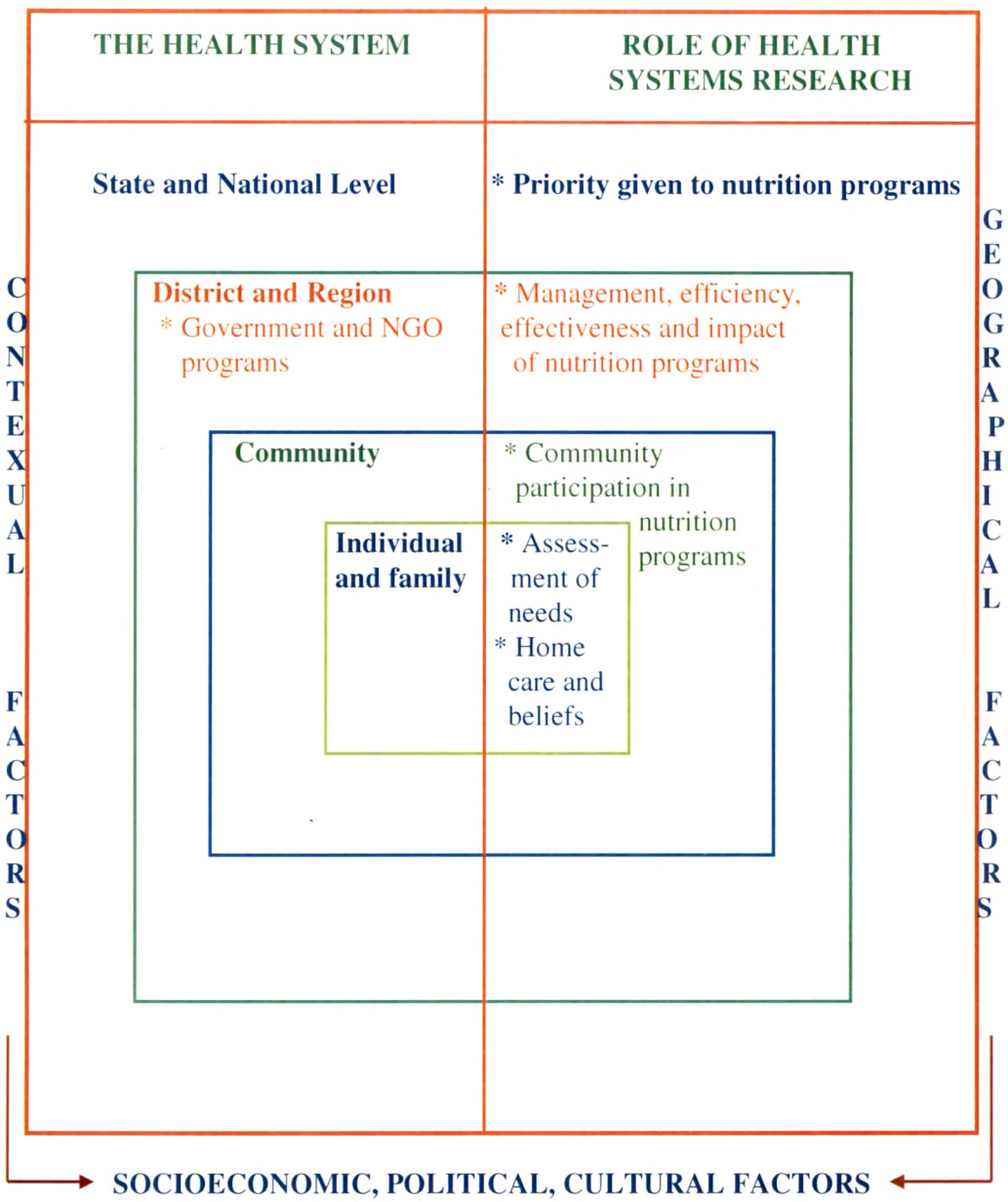
Health Systems Research

HSR involves the collection of information about services, programs or systems with a view to assessing the need for them, examining their design and operation and evaluating their efficiency, effectiveness and impact. It is a part of the process of service development, aiming primarily to improve services or their components (Omran 1990).

The HSR related studies in India have been carried out in the areas of health need assessment, communicable and non communicable diseases, human power development, IEC, managerial processes, health organizations, health economics, health care delivery systems, health service utilization, KAP of health service providers and their clients, health behavior, and evaluative studies on several national health and nutrition programs.

Figure 1.1 (adapted from Varkevisser et al 1991) depicts the role of HSR in the context of nutrition programs at various levels: individual and family, community, district and regional, and state and national level. In the context of nutrition programs, HSR assesses the nutrition needs of an individual and his/her family, as well as cultural beliefs and practices related to nutrition. At the community level, HSR is useful in assessing the community's participation in nutrition programs.

Figure 1.1 Nutrition Programs: A Health Systems Approach



Adapted from: Varkevisser et al (1991)

At the district and regional level, it evaluates the management, efficiency, effectiveness and impact of the nutrition programs; and at the national level, HSR helps determine the priority given to these programs. At all these levels, HSR takes into account the socioeconomic, political, cultural, contextual and geographical factors which may influence the implementation of nutrition programs in a health system.

Justification of the Present Study

Although NGOs have long played a prominent role in supporting the government in Health – Nutrition and Development programs, many research questions remain unanswered.

- Given the fact that in Gujarat, many NGOs are managing ICDS, what is the quality of implementation and impact of ICDS when it is managed by an NGO?
- What is the quality of implementation of nutrition related services in ICDS – in particular counseling for growth promotion and BCC to improve IYCF practices?
- Are ICDS functionaries under supervision of an NGO, competent in communication skills to empower ICDS beneficiaries specially mothers of young children?
- Are the methodologies and approaches offered by the HSR framework useful in the context of a nutrition program evaluation; in this care an NGO managed ICDS?

To answer the above research questions, the present study was undertaken in rural Vadodara, with the overall objective of adapting the Health Systems Research methodology to study selected nutrition services (Growth Monitoring, Supplementary Feeding, *Rab* supplementation and Nutrition Health Education) in NGO managed - ICDS and to strengthen the system for improved implementation and monitoring of selected services. The focus was especially on strengthening capacity of ICDS functionaries to improve IYCF practices in the community.