



The Consultative Group on Early Childhood Care and Development

HEALTH CARE: CASE STUDIES

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The following case studies illustrate various strategies for bringing health, nutrition, care and/or education components to young children and their families. Some of these programmes had a singular focus, some were designed from the beginning to be more comprehensive, and others have become comprehensive over time. They are not all success stories, but they do provide some insights into the complexities of developing appropriate and effective programmes.

A Food Supplementation Programme in India

Focus: Providing food supplementation to increase children's intake of vitamins and iron, and providing health services for pregnant and lactating women, to improve the nutrition of children ages 6-36 months.

The Tamil Nadu Integrated Nutrition Project (TNIP) was begun in 1980 with funding from the World Bank. It was designed to reduce the incidence and prevalence of malnutrition and improve the health of children in the 0-3 age group. There was also a focus on pregnant and lactating women. One of the key features of the project was Nutrition Surveillance. Children were monitored and weighed once a month. Those who were found to be malnourished were given a food supplement called *Laddu*, made from cereals and pulses fortified with vitamins and iron. When the child appeared to be rehabilitated, the supplementation was stopped. Pregnant and nursing women also received nutritional supplements.

In addition to the provision of nutritional foods, the project had a health component which focussed on helping to decrease the infant mortality rate by providing better health care to mothers pre-and post-natally. There was also a communication component that was designed to motivate the population to pay more attention to the nutritional needs of infants and young children from birth to age 3. Mass media and one-to-one contacts were the chief methods of spreading the word.

What was the project able to achieve? Over a period of 6 years there was a dramatic reduction (55.5%) in severe malnutrition and also a clear upward shift in the percentage of normal children and very moderately malnourished children. (Swaminathan 1993) Thus the programme was effective in reaching the children. It was much less effective in reaching women. "The participation of pregnant women and nursing mothers in the supplementary feeding as well as the referral and health care system was poor, with low ante-natal registration and delivery services, and less than 50% uptake of nutritional supplements by women." (Swaminathan 1993, 10) One of the hypothesized reasons for the lack of uptake by the women is that the project was not sensitive to women's work roles and timings.

Why was it able to accomplish what it did? The project was designed in such a way that it reached the poorest of the poor. It was well structured organizationally and administratively. And, the provision of food, rather than a cash payment for families to buy it, helped assure that families actually had food.

What were some of the problems? There was little effort to get the community involved in any aspect of the programme other than being the receivers of the service. They were not involved in preparing or distributing the food. Further the rehabilitation was often temporary. Short-term goals were met, but there was no attempt to address the issues that led to the malnutrition in the first place, whether that be poverty or a lack of understanding of the role of care in the feeding process. And finally, the programme did not address issues of self-reliance in food or stimulate local production of the food which would have greatly enhanced sustainability. In addition, no attention was paid to the psychosocial aspects of early development.

Reference: M.S. Swaminathan. "The Continuum of Maternity and Child Care Support: A critique of relevant laws, policies and programmes from the perspective of women's triple roles." A paper presented at the Sixth Conference of the Indian Association for Women's Studies, Mysore, May 31-June 2, 1993.

The TNIP programme was begun in an era when straight supplementation was seen as sufficient. As a result of programmes like this one and others since, lessons have been learned. For one thing, supplementation in and of itself is no longer seen as sufficient. At the very least the focus has to be on changing diets so that the needed nutrients are present in everyday foods and eating habits. In the World Bank document, **Best Practices in Addressing Micronutrient Malnutrition** (World Bank 1993), the authors suggest that in developing a supplementation programme that leads to a changed diet the following questions have to be raised:

1. Whose diet needs to be modified? If it is only young children that are in danger of malnutrition, then mothers need to understand the importance of changing the young child's

diet. Or, it may be that it is most important to change the diet of pregnant and lactating women. In this instance other strategies would be used.

2. Who has the power to change the diet? Does the mother have control over this or is it the grandmother that dictates what the child will be fed? What role does the father play in the process?
3. What is most easily changed that will have the most impact? The more specific the modification the easier it will be to make it.
4. What will motivate people to change? Changes are not likely to come about when people are presented with "scientific" information. They need to see that there will be some immediate benefit for them if they are going to change their behaviour.
5. What are the obstacles to changing behaviour? There is the obvious one of unavailability or cost of the appropriate foods. There are also the beliefs and attitudes that people have about what it is appropriate and inappropriate for people to eat, particularly pregnant and lactating women and infants. (World Bank 1993, 59)

The second case study illustrates the ways in which a multi-pronged approach was taken, involving government, local producers, and the community, to assure both access to the micronutrient and sustainability of the effort.

Iodine Deficiency (IDD) Control in Bolivia

Focus: To fortify the salt supply with iodine so that the whole population of Bolivia would have access to and use fortified salt.

This project was begun after a study conducted in 1983 documented that 65.2% of the school-age children had goiter problems, and that there was a 16% cretinism rate in some areas. Some of the difficulties encountered in bringing iodine to the total population were: a widely dispersed population with pockets of isolation; difficult terrain making distribution a problem; large deposits of non-iodized salt that people had easy access to; and a longstanding acceptance by the people of iodine deficiency.

From the beginning the project had strong government support. In 1983 the Italian government, through the Joint Nutrition Support Programme (JNSP) of PAHO/WHO and UNICEF, funded PRONOALCOBO -a national programme to fight against goiter. PRONOALCOBO was incorporated as a branch of the National Office of Food and Nutrition, and operated through the Ministry of Health.

The programme included three approaches. The first was to increase the production and distribution of affordable iodized salt. This was achieved. Today, 80% of the necessary iodized salt is produced domestically (both publicly and privately). Salt producers' cooperatives were created through working with the pre-existing National Cooperative Institute, and the government produced salt. As the industry developed, a percentage of the profits from the sale of iodized salt were pumped back into the programme through PRONOALCOBO, subsidizing the education activities and the delivery of iodine to the remote areas. PRONOALCOBO hopes to achieve financial independence in 1994.

The second strategy consisted of public campaigns to increase awareness of IDD and methods of IDD control. The Ministry of Health trained community volunteers to distribute IDD materials and promote community acceptance. There was extensive collaboration with preexisting institutions. This included primary health care workers and facilities, local NGOs, agricultural committees, mothers clubs and churches. The trained community health workers trained teachers and community leaders, providing them with materials they could use in educating others. In addition radio and television spots provided information and traditional forms of education (puppet shows, theatre) were used to reach people at fairs and festivals.

Third, there was direct administration of iodine supplements to those at highest risk. These consisted of supplying iodized oil to communities without access to iodized salt.

As a result of the programme, goiter among school-aged children has dropped to 20.6%, consumption of iodized salt increased from 1% to 98% in urban areas and from 0% to 22% in rural areas.

There appear to be several reasons for the success of the programme. First, from the beginning there was strong political support for the effort. This was demonstrated in the creation of PRONOALCOBO and the fact that laws and regulations governing the production and distribution of salt went hand-in-hand with the effort. Secondly, appropriate technologies were introduced in a timely way by the International Council for Control of IDD (ICCIDD). Machinery for the production of iodized salt was made available, along with expertise in how to produce it in a cost-efficient way. Third, programme planning and implementation was the responsibility of the Bolivians, not outsiders.

Reference: World Bank, Best Practices in Addressing Micronutrient Malnutrition. 1993, 96

Why has this programme been as effective as it has over the past decade? The lessons learned from this and similar projects would suggest that in addition to the variables listed above, the following were contributing factors:

1. Over time, iodized salt was available, affordable and accepted by the people.
2. An educated public began to learn the value of iodized salt and changed their buying habits to include iodized salt.
3. Multiple avenues were used to bring the message to the community. The use of popular media (both modern and traditional) helped focus people's attention on the issues. They also learned about it through community people they trusted and children received information in school and brought it home. Groups people belonged to were part of the process of getting the word out. The messages were everywhere.

The two cases presented above illustrate the ways in which a very targeted programme can be introduced successfully. In the first instance there were considerable problems because some of the wider contextual issues were not addressed and the approach did not include a psycho-social component. In the second case, working within and using the context were critical variables in the success of the programme. In both instances there was a specific product that was being introduced.

The third case study is of a project in Thailand where, like in Tamil Nadu, there was a concern about children's nutritional status. However, quite a different approach was taken. Rather than focussing on applying supplemental foods to the child, the project began by looking at the practices surrounding feeding and nutrition in order to change maternal behaviour.

Integrated Nutrition and Community Development Project in Thailand

Focus: A reduction of malnutrition through understanding and building on local childrearing practices and beliefs

This project was begun by the Ministry of Health in Thailand who conducted studies to understand why there was such a high incidence of protein energy malnutrition (PEM) within the country. They identified what they perceived to be three major constraints to significant reduction in the level of PEM in infants and preschool children: 1) a health system that did not reach those most at risk; 2) a lack of community awareness about malnutrition and its impact on children's growth and development; and 3) the fact that nutrition was being viewed as a health problem only: there was a lack of multi-sectoral input into the programme.

Taking these constraints into consideration, the government, in 1979, launched an integrated community-based primary health care project that included supplemental feeding, growth monitoring and parental nutrition education, all within a national plan for poverty alleviation. Within this broad framework, the Institute of Nutrition at Mahidol University carried out a nutrition education project that was directed toward families with the most vulnerable infants and pre-schoolers. What is unique about the project is that the nutrition education included a psycho-social component focussing on caregiver-child interactions and on improvements in the physical and social environment surrounding the child.

As a basis for the project, childrearing attitudes and practices were studied to know what mothers were currently doing and to determine how that might affect children's nutritional status. Through the studies a number of nutritional and social taboos were discovered that were not beneficial to the child. For instance, there was a belief that colostrum was bad for the infant and that newborns were incapable of sucking. This meant that breastfeeding was not begun immediately following birth. It was delayed, with the consequence that many mothers found it difficult to breastfeed and quickly turned to bottle feeding. Children were not receiving the nutrition which breastfeeding provides.

It was also discovered that mothers believed that the normal tongue-thrusting activity of infants signalled that the infant was no longer hungry. Because of this belief, many infants were chronically underfed.

Another important belief that needed to be addressed was that few mothers knew that at birth infants were capable of seeing and hearing. As a result, mothers did not interact with their infants and they were left for hours in hammocks that essentially blocked them from seeing

anything in their environment. Related to this was the mother's lack of awareness of her own capacity to make a difference in the child's development. Mothers had little understanding of how they could make use of existing resources to create a more nurturing environment for the child and how important it was for them to interact with the child.

With these practices in mind, a series of interactive videos was created. One was specifically oriented toward child development, aimed at creating maternal awareness of her child as an individual with early perceptual ability, and the importance of play and of mother-child interaction in that play and in supplementary feeding. A second video compared two 15-month old boys, one malnourished, the other normal. The video identified differences in the mother's behaviour (her feeding and caring practices) in each scenario, as well as differences in the food provided to the child. Health communicators in each village, who served as distributors of supplementary food, were trained in the use of the videos which were presented as often as needed in each village.

An evaluation of the project was conducted to assess the impact of the project on children's nutrition. As a result of the project fewer children suffered PEM. On the basis of interviews with mothers of under-two children, and of observations in the home, evaluators of the project concluded that changes in the mothers beliefs and behaviours were critical variables in improving children's nutritional status.

Those involved concluded that videos are a powerful technique when working with illiterate adults. The visual images provided through the videos stimulated discussion and presented mothers with models of behaviour which they could imitate. When observers went to the villages they noted more adult-child interaction, more open cradles, and more colostrum was being given. The results suggest that a focus on the psycho-social components of feeding (i.e. care) can make a significant difference in children's nutritional status.

Reference: Kotchabhakdi, N. "A Case Study: The Integration of Psychosocial Components of Early Childhood Development into a Nutrition Education Programme of Northeast Thailand," a paper prepared for the Third Inter-Agency Meeting of the Consultative Group on Early Childhood Care and Development, Washington, D.C., January 12-14, 1988. New York, The Consultative Group.

This project illustrates how both nutrition and psycho-social education components can be incorporated into a national programme of growth monitoring and targeted supplementary feeding with good results, using a method that does not depend on literacy and which takes into account local practices.

While the Thailand experience represents an attempt to create a nutrition education programme that takes into account the many variables that contribute to a child's nutritional status, there is a national programme in India that is designed to not only address nutritional needs, but children's cognitive needs as well. It includes not only children from birth to age 3 but also pregnant and lactating women and children through age 6.

Integrated Child Development Services (ICDS) in India

Focus: Providing children from birth to six years of age with comprehensive, integrated services, including nutritional supplementation, health, care and education.

In 1974 India adopted a National Policy for Children to ensure the delivery of comprehensive child development services to all children. One of the first targets for the effort were the poorest children found in urban slums and rural areas, particularly children in scheduled castes and tribes. Beginning in 1975 with 33 projects, Integrated Child Development Services (ICDS) has grown to 2696 projects (more than 265,000 centres) in 1992, reaching about 16 million children under 6 years of age. The specific objectives of ICDS are to:

- lay the foundations for the psychological, physical, and social development of the child;
- improve the nutritional and health status of children, 0 to 6;
- reduce the incidence of mortality, morbidity, malnutrition and school dropout;
- enhance the capability of mothers to look after the needs of the child.

The integrated package of ICDS services works through a network of Anganwadi (literally, courtyard) Centres, each run by an Anganwadi Worker (AWW) and helper, usually selected from the local village. The AWW undergoes a three-month training in one of the more than 300 training centres run by voluntary and governmental agencies. Responsibilities of the AWW include: non-formal pre-school education, supplementary feeding, health and nutrition education, parenting education through home visiting, community support and participation, and primary maternal and child health referrals. Support is provided to the AWW by a supervisor (1 per 20 AWW) and a Child Development Programme Officer working with 3-5 supervisors) who is directly responsible for implementation and management of each ICDS project.

All families in the area to be served are surveyed to identify the poorest. Those families with children under 6 and/or where the woman is pregnant or lactating, are served in the Anganwadis. Regular examinations are provided by Lady Health Visitors and Auxiliary Nurse Midwives. Children and pregnant women are immunized on a scheduled basis. Three hundred days a year food is distributed, the menu prepared in accordance with local foods and traditions. Families are encouraged to bring the children to the centres for regular feeding. Children's weight and height are monitored. Those with severe malnutrition are given additional food supplements, and acute cases are referred to medical services.

A pre-school programme has been developed for 3-6 year-olds who attend the centre three hours a day. The AWW is encouraged to develop activities that stimulate the child. An additional service is non-formal training in nutrition and health organised for mothers and pregnant women. These sessions are open to all women, aged 15-45, with priority given to pregnant and nursing women and women whose children suffer from repeated malnutrition.

Funding for the programme has come from both governmental and non-governmental sources. The initial costs of establishing a programme are provided by the Ministry of Social Welfare. The

costs of the supplementary feeding programme are borne by the state; and the on-going operational costs are the responsibility of the Central government. International donor agencies have also been involved in funding aspects of the programme: UNICEF assisted in planning and implementation beginning in 1975. Since 1982 other international agencies, for example, the World Food Programme, the Aga Khan Foundation, CARE, NORAD, USAID and the World Bank, have been contributing in a variety of ways.

The ICDS programme uses existing services of diverse governmental departments and of voluntary agencies for the training of ICDS workers. Overall administration lies with the Department of Women and Child Development within the Ministry of Human Resource Development. ICDS is monitored by the Ministry as well as the All India Institute of Medical Science and the National Institute for Public Cooperation and Child Development. The annual unit cost per child per year was estimated at approximately US\$10.00.

Although the programme often operates at a minimum level of quality it has nevertheless had important effects on the under-six population. For instance, a review of 30 studies of the nutritional impact reveals nearly unanimous results documenting a positive outcome. A 1984-86 comparative study done in a number of locations showed ICDS/non-ICDS infant mortality rates of 67 vs. 86 in rural areas and 80 vs. 87 in urban areas. In a comparative study of effects on schooling, one researcher found that those with ICDS background had a higher primary school enrollment rate (89% vs. 78%), were more regular attenders, had better academic performance and scored significantly higher on a psychological test (Raven Colour Matrices), than non-ICDS children. Furthermore, the difference in enrollment rates was accounted for by differences among girls (more of the ICDS girls stayed in school). In another study, it was found that primary school dropout rates were significantly lower for ICDS than for non-ICDS children from lower and middle caste groups (19 vs. 35 percent for lower castes and 5 vs. 25 percent for middle castes).

The ICDS, the largest programme of its kind, illustrates the power of political commitment to achieve significant rates of coverage in an integrated programme of attention to children ages 0 to 6, with important effects on health and education and at a reasonable cost.

References:

Hong, S. "Integrated Child Development Services. Early Childhood Development: India Case Study." Paper prepared for the Global Seminar on Early Childhood Development, Italy, Innocenti, 12-30, 1989.

National Institute of Public Cooperation and Child Development. "National Evaluation of Integrated Child Development Service", New Delhi: NIPCCD, 1992.

What is impressive about ICDS is that when it was conceived in 1974 there was a clear understanding of the importance of delivering comprehensive services to meet the multiple needs of young children. Structurally the programme has always included a focus on health, nutrition and education of the young child and the mother. While the programme has certainly demonstrated positive benefits for both women and children, they are not of the magnitude that

one would hope for. This is due primarily to the difficulty of assuring quality because of the scale on which the programme has been implemented. It may also be due to having such a comprehensive mandate.

While ICDS certainly provides a vision of what should be included in a full range of supports for young children, it also illustrates the difficulties of attempting to provide health, nutrition and education services to a given population. Another approach that has been taken is to develop one service first, then to add on additional services as the need for them are identified by the community.

Sang Kancil, Community-based Services in Malaysia.

Focus: The development of community-based services in response to community-defined needs.

The Sang Kancil Project was developed within the squatter settlements of Kuala Lumpur, Malaysia. It was begun in 1978 by the health sector in an attempt to meet the health needs of those living in urban squatter settlements. The rationale for working in squatter communities was based on the fact that they are a growing phenomenon in the developing world, constituting nearly 50% of the total urban population. It is widely recognised that the environment within squatter settlements is threatening to people's health, physically, mentally and in terms of psychosocial development.

In Malaysia there was difficulty in providing services for squatters because they occupy the land illegally and thus are not entitled to city services (water, sewage, medical care, education, etc.). Nevertheless many squatter settlements are stable communities, including people from a variety of income levels. The stability comes from affordable housing that may not be available outside the settlement and well-developed support systems and/or leadership positions within the settlement. The developers of the Sang Kancil project developed a strategy that recognised, valued, and built upon the complex social systems which exist in the settlements.

While the health sector personnel who began the project were interested in establishing primary health care centres within kampungs (districts) in the settlements, they began their efforts by conducting meetings with community members to determine their needs and priorities. The community wanted a child care programme for young children and to create income-generating activities for women. Health care was not seen as a priority. Those involved listened to the community. Rather than building a health centre, they established a pre-school and an income-generating project. When these were well-established, then it was possible to introduce primary health care, which is now widely accepted.

Reference: Yusof, K. "Sang Kancil—Care of Urban Squatter Settlements." *World Health Forum* 2(2):278-281 (1982).

The approach of beginning with a limited focus and incrementally providing other services to young children and their families appears to be successful. However, it works best when the target population is relatively small. It is much more difficult to use this approach when considering issues of scale.

*It is apparent from the above cases, that a program needs to be designed in response to the particular population(s) being served, taking into account their history, beliefs, practices, perceived needs, expectations and ability to participate. Programs also need to be designed with the active input and participation of the programme providers. While the research on **Care** as it relates to health and normal development shows that a multi-dimensional integrated approach is optimal, practical experience shows that this approach requires great sensitivity and careful planning.*

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Early Childhood Counts: Programming Resources for Early Childhood Care and Development.
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