Editorial

Preventing Malnutrition : The Critical Period is 6 months to 2 Years

Malnutrition among young children is rampant in India, even though the National Nutrition Monitoring Bureau (NNMB) survey 1988-90(1), seems a bit optimistic compared to the earlier survey of 1975-79(2). However, in most studies, the preschool years of under five have been treated as a single entity. As a matter of fact in some surveys, the period upto 1 year has been excluded. Even programmes like Tamil Nadu Integrated Nutrition Programme (TINP) and Integrated Child Development Services (ICDS) programme had initially excluded the age group, birth to six months, from their ambit but later this period was included with the realization that this was the crucial period when malnutrition begins. Many babies do not get adequate food between 6 months and 2 years of age, a time when they are totally dependent on the mother or a mother substitute for feeding. Many mothers are busy and might be away from home, in which case feeding is often left to an older sibling or another family member. There are constraints of time and fuel and often unsuitable snacks are bought and fed to the child instead of home cooked food. I have referred to the period between 6 months and 2 years as a period of perpetual hunger(3). There is widespread preference for liquids (grossly diluted milk, tea, dal water, vegetable soup, fruit juice, *etc.)* over semisolids and a majority of health and ICDS workers help to strengthen that belief by wrong advice in favor of these liquids, which have hardly any nutritional value. Malnutrition during this crucial period is certainly not due to poverty and lack of family resources, but to lack of knowledge and not giving priority ^e-^he young child feeding.

The recent National Family Health Survey(4) data has once again highlighted the critical period of 6 months to 2 years. Every state for which data is available, shows the same picture. The percentage of malnutrition goes on rising between 6 months to two years and plateaus after that. Around 50-60% of children are malnourished by two years. Stunting is a major problem and was present in almost half the children. According to the NNMB Survey (1988-90) stunting was present in 65% children between 1-5 years(l). Susceptibility to diarrhea is also high in young children, prevalence being highest between 6 and 11 months of age. The diet is further reduced and made more watery, and contact with health services delayed due to lack of awareness and constraint of time. The access to health care of a female child is even poorer compared to a boy child as evidenced by fewer number of girls attending any health facility.

The period of exclusive breastfeeding is less than optimal even among communities that traditionally breastfeed their

babies. In the NFHS data(5) exclusive breastfeeding between 0-3 months was only 51.0%. Introduction of semisolids is delayed and the child is fed only watery, low calories supplements. Solid mushy food between 6-9 months was offered to about one third children with a low of 9.4% in Rajasthan and a high of 69.3% in Kerala.

What is the solution? Clearly nutrition supplementary programmes are not the answer as they focus mainly on children 3 years and above for the simple reason that it is very difficult to reach children under three. Besides these children require several small meals and not one mid-day meal. Lack of economic resources is not a major constraint either. The answer lies in educating the family and the community regarding food requirements of the young child-exclusive breastfeeding starting soon after birth, and addition of semisolids between 4 and 6 months, four to five times a day in progressively increasing amounts. The obsession with liquids must cease and instead advice should be for giving semisolids. Nothing special needs to be cooked. The normal family food can be further softened and mashed and fed to the child(6). Betty Cowan from Christian Medical College, Ludhiana had similar experience (personal communication). Correct messages have to be incorporated in the training programmes of Medical Graduates, Postgraduates, Nursing Students, Auxiliary Nurse Midwives, Home Science students, ICDS functionaries and anyone else who takes care of children. The messages should include exclusive breastfeeding for 4-6 months, and thereafter addition of semisolids, consisting of mashed home cooked food, in gradually increasing quantity 4-5 times a day. Caloric density can be increased by addition of oil, butter, sugar, *etc.* Addition of fresh fruits (banana, mango, papaya, checkoo, *etc.)* to the extent possible enhances the caloric content as well as minerals and vitamins. Green leafy vegetables too supply iron and B carotene. Attention to hygiene while cooking and feeding is essential to prevent infection. Hand washing before feeding should become a habit. Awareness creation among the community is undoubtedly a vital element of the programme.

Ready to eat cereal legume mixtures, on the pattern of the food produced by Central Food Technology and Research Institute (CFTRI) Mysore could be sold in 100-200 g packets at a subsidized rate from various outlets like women's cooperatives, Mahila Mandals, public distribution^ system, Development of Women and Children in Rural Areas, programme *etc.* Experience at the grassroots has shown that many families do spend considerable amount of money for buying various snacks, most of which are unsuitable for a young child, and not energy dense.

Appropriate feeding of the young child must become a national movement, supported by the health professionals (recently an Indian Academy of Pediatrics Policy on Infant Feeding(7) has been formulated, women's groups, panchyats, NGOs and others. Government must assume a leadership role in this venture.

Shanti Ghosh,
5, Sri Aurobindo Marg,
New Delhi-110 016

REFERENCES

1. National Nutrition Monitoring Bu-

reau, National Institute of Nutrition, Hyderabad, 1988-90.

2. National Nutrition Monitoring Bureau, National Institute of Nutrition, Hyderabad, 1975-79.
3. Ghosh S. Feeding and Care of Infants and Young Children, 6th edn. New Delhi, Voluntary Health Association of India, 72-80.
4. Reports from Maharashtra, Uttar Pradesh, Haryana, Tamil Nadu and Karnataka. National Family Health Survey 1992-93. Bombay International Institute for Population Science, 1995.
5. International Institute for Population Sciences, 1995 Introductory Report, 1995, pp 80-84. Bombay, National family Health Survey 1992-93.
6. Walia BNS, Gambhir SK Kumar D, Bhatia SPS. Feeding from the family pot for prevention of malnutrition. Food Nut Bull 1985, 7: 43-46. .
7. IAP Policy on Infant Feeding. Indian Pediatr 1995, 32:155-164