Infant and Young Child Feeding

An 'Optimal' Approach

Child mortality rates, especially those of children under five, as well as the incidence of malnutrition among young children remain high in India. The infant and young child feeding programme is in need of an immediate reappraisal. To ensure the IYCF's optimal efficacy, it needs to be integrated into health, welfare and other outreach programmes presently underway in urban as well as in remote and far-flung rural areas.

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This article analyses the present situation of child health and development in India with reference to the millennium development goals (MDGs) on poverty reduction and child mortality. The infant and young child feeding (IYCF) programme needs a serious reappraisal, if India is to achieve the national goals of ensuring 80 per cent exclusive breastfeeding during the first six months, and 75 per cent complementary feeding with continued breastfeeding thereafter for two years. The paper also discusses why the IYCF should be considered a key priority in child health and development programming, considering the health and economic benefits linked to this achievement. Finally, some forward-looking actions have been suggested for effective integration of infant feeding in the existing child health and development programmes and policies.

India, home to more than one billion people, has the highest number of deaths of children under five. Globally, a whopping 10.9 million children under the age of five die annually, four million of them in their first month and 2.42 million (roughly one quarter) of these deaths are in India alone. Worse yet, the survivors are not able to develop to their full potential. According to the second National Family Health Survey (NFHS-2), 47 per cent of Indian children under the age of three are underweight.[1] In other words, of the estimated 75 million survivors below the age of three, about 36 million are underweight. This has profound negative consequences on the physical and mental health and

development of children, and thus on the Indian society.

Optimal infant and young child feeding implies that every child gets the best possible start to life through exclusive breastfeeding for the first six months (starting within one hour of birth) and continued breastfeeding for two years or beyond, along with adequate and appropriate complementary feeding beginning after six months.[2]

Global and National Commitments

The *Global Strategy for Infant and Young Child Feeding* was adopted at the 55th World Health Assembly in May 2002, and the UNICEF executive board adopted the strategy in September 2002, bringing a unique global consensus on issues related to optimal infant and young child feeding. This consensus is also reflected in the MDG report, where optimal infant and young child feeding is included among the priority interventions. The global strategy calls for development of national plans of action on IYCF with adequate resources.

The *Global Strategy for Infant and Young Child Feeding* sets out targets for improving child survival through enhancing optimal infant and young child feeding, including in difficult circumstances like HIV and emergency situations. The *HIV and Infant Feeding Framework for Priority Action*[3] endorsed by nine UN agencies clearly points out five areas of priority action. The first among those is to ensure optimal feeding for all babies, particularly exclusive breastfeeding for the first six months, recognising the role of exclusive breastfeeding in preventing transmission from the mother to the child. These international commitments put infant and young child feeding in a human rights perspective and show the way forward. National commitments are enshrined in the *National Guidelines on Infant and Young Child Feeding*[4] and the *Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act 1992*, also known as "IMS Act", as amended in 2003.[5]

Benefits

After the rapid decline of breastfeeding globally in the 1960s, science has had to revisit breastfeeding during the last three to four decades. This led to clear evidence that breastfeeding provides the ideal and irreplaceable nutrition for the baby. In particular, breastfeeding protects the baby against infections, allergies and asthma; promotes physical, physiological, motor, mental and psycho-social development; and gives protection against obesity and some adult diseases such as diabetes, hypertension, ischemic heart disease and some forms of malignancy.[6] Further, breastfeeding saves money for the family and the nation, helps fertility control and is eco-friendly.[7] Breastfeeding has also been related to possible enhancement of cognitive development.[8] There are advantages for the mother: breastfeeding reduces the incidence of post-partum bleeding,[9] leads to faster uterine involution,[10] reduces the risk of breast cancer[11] and ovarian cancer,[12] delays resumption of ovulation and increases child spacing,[13] improves bone re-mineralisation[14] after birth in women with reduction in hip fractures in post menopausal period.[15] Finally, it is likely that all the benefits of human milk are not presently known.[16]

Child Survival

According to the *Global Strategy for Infant and Young Child Feeding*, "Malnutrition has been responsible, directly or indirectly, for 60 per cent of the 10.9 million deaths annually among children under five. Well over two-thirds of these deaths, which are often associated with inappropriate feeding practices, occur during the first year of life." The *National Guidelines on Infant and Young Child Feeding* point out that malnutrition among children occurs almost entirely during the first two years of life and is virtually irreversible after that. In short, child mortality is closely linked with malnutrition and inappropriate feeding.

Child survival series recently published in *The Lancet* show that at least one proven and practical intervention is available for preventing or treating each of the main causes of death among children younger than five years.[17] If all these interventions were universally available, then something like 63 per cent of child deaths could be prevented. In other words, the necessary interventions needed to reduce child mortality are available, but are not being delivered to the mothers and children who need them.

According to this analysis, breastfeeding (including exclusive breastfeeding for the first six months and continued breastfeeding for the next six months) was identified as the single most effective preventive intervention, which could prevent 13 to 16 per cent of all childhood deaths. Adequate complementary feeding between six and 24 months could prevent an additional 6 per cent of all such deaths. Extending the coverage of these two optimal infant and young child feeding practices to 90 per cent could prevent 19 per cent of all deaths among children under five. This means that over 4,50,000 child deaths could be saved each year in India alone.[18]

Nutrition during the early years of life is critical for early child development and human development, not only because young babies are vulnerable, but also because most of the brain growth occurs during this period.[19] In the long run, healthier adults contribute to greater economic productivity. Child malnutrition tremendously affects development outcomes, as global research indicates that 85 per cent of a child's core brain structure is already formed by the age of three.[20] It impairs cognitive development, intelligence, strength, energy and productivity. As malnutrition strikes the most during the first two years, it disturbs the very foundation of life and development.

It is critical to invest in the early years of life by ensuring optimal infant and young child feeding practices as a means to prevent and reduce child malnutrition. Providing "infant and young child feeding counselling" as a service to families is all that is needed. This is how we can translate our commitments to children and fulfil their rights to the highest attainable standards of health. If the government intends to achieve the Tenth Five-Year Plan's goals on infant feeding, such as raising exclusive breastfeeding to 80 per cent and adequate complementary feeding to 75 per cent, bold decisions have to be taken regarding both the Integrated Child Development Services (ICDS) and the Reproductive and Child Health (RCH) programmes. The focus must shift from curative to preventive approaches.

Present Status

Infant and young child feeding practices in India are far from optimal. According to NFHS-2, exclusive breastfeeding falls rapidly from 72 per cent at one month to 20 per cent at six months (Figure 1). Only about 16 per cent of all babies in India start breastfeeding within one hour. Other indicators are also disappointing. For instance, complementary feeding practices are very poor: only 33 per cent of children aged between six and nine months are given

Figure 1: Exclusive Breastfeeding

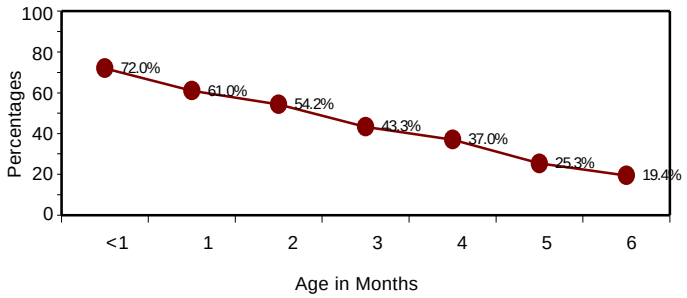
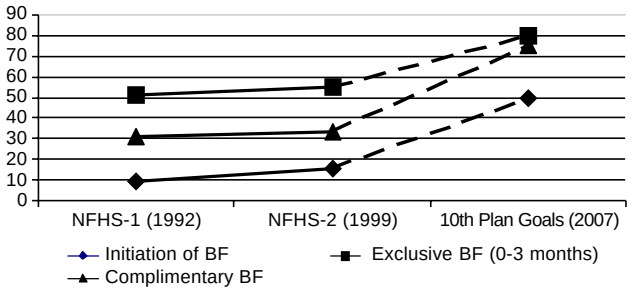


Figure 2: Trends in IYCF and the 10th Plan Goals



Note: Tenth Plan goal for exclusive breastfeeding is 80 per cent for 0-6 months.

solid mushy foods (NFHS-2). Comparison with NFHS-1 highlights that we have been able to stop the decline in breastfeeding. However, achieving the national goals will require investment in action and resources (Figure 2). Results from a recent study from 49 districts (2003),[21] with data for close to 9,000 mothers, also show a dismal picture. This is where malnutrition begins. Young babies are dependent on parents or other caregivers.

"I don't have enough breast milk for my baby" is a common feeling among mothers. Health workers offer milk supplements to treat this perception rather than building their confidence and skills. Mothers have little information about nutrition, exclusive breastfeeding, complementary feeding, and related matters – what to give, how much to give and when. Most frontline workers do not devote much time to infant feeding, nor do they have the skills to do so. Meanwhile, newspaper articles and other media constantly put forward information or rather misinformation on infant and young child feeding, and are a cause of more confusion among people. Aggressive commercial promotion of baby foods using market and healthcare systems leads to the adoption of bottle-feeding as a modern way of feeding, even in remote villages of India. Families end up adopting poor infant feeding practices, without much awareness of their negative impact on children's health and development.

During a recent field visit to villages in the district of Vaishali in Bihar, it was found that none of the health or ICDS workers were able to give a correct answer to the problem of "not enough milk" (one of the workers was a home science postgraduate). Another study, on rural Rajasthan, revealed that errant feeding practices have made deep inroads into the psyche of people and are transmitted from one to the other, without knowing or understanding the actual facts.[22] In these circumstances it is no surprise that traditional wisdom on infant and child feeding is highly inadequate. Outreach services only provide lip service and not skilled counselling or education on breastfeeding. In urban areas many mothers deliver their babies in hospitals and many also undergo Caesarean sections. These babies are usually given infant formula on the first day of life by the health personnel or under their medical advice. This is not because health personnel do not know the dangers of artificial feeding, but because they tend to believe that mothers do not produce enough milk during the first few days and are unable to breastfeed, especially after Caesarean sections. This happens due to lack of adequate skills with the health personnel to support exclusive breastfeeding. The commercial influence of baby food companies also plays a key role in this context.

Key Factors

Counselling skills of frontline workers: Several studies in India and across the globe have demonstrated that it is possible to achieve high rates of exclusive breastfeeding, but this is possible only through education and counselling.[23,24] The Breastfeeding Promotion Network of India (BPNI) recently conducted an intervention study in 235 villages from three blocks of Bhuj in Gujarat and provided skill training to anganwadi workers, who in turn provided infant and young child feeding counselling to pregnant women and lactating mothers. This study produced encouraging results, showing that exclusive breastfeeding rates increased from 1 per cent to 37 per cent in the intervention area. This was achieved through the existing ICDS system, but this system needs resources for training of workers and counselling families and also a plan for scaling up.[25]

Timing of interventions is critical: In India, the vast majority of women initiate breastfeeding (though rarely within an hour of birth) and continue breastfeeding, but the duration of exclusive breastfeeding tends to be very short. The period when women are most likely to abandon exclusive breastfeeding is during the first three months. According to NFHS- 2, exclusive breastfeeding declines by 45 per cent during this period (Figure 1). The critical time for intervention is the first two months.

It has been shown in Belarus that early intervention by the health facility is highly effective in increasing the duration of the exclusive breastfeeding period.[26] This experience has demonstrated the success of Baby Friendly Hospital Initiative (BFHI), a programme that ensures 10 steps to successful breastfeeding, in increasing exclusive breastfeeding. A joint UNICEF/BPNI study in India also showed that BFHI had a significant positive impact on several breastfeeding practices, such as early initiation and reduction in prelacteal feeding. "Skill training" was the key factor.[27]

Need for comprehensive plans: In Honduras, a national action plan to promote breastfeeding was implemented over a five-year period. The components of the plan were changes in hospital norms, training of health providers, pre- and post-partum counselling, development of lactation clinics, community talks, and mass media campaign to complement this effort that primarily targeted urban women. The programme increased the median duration of breastfeeding among target women from four months to 15 months within five years.[28]

Focus on behaviour change: Optimal infant feeding behaviour is a continuum and changes at different ages of the infant and the young child. As this behaviour varies with the age of the infant, timing of interventions is critical. Breastfeeding should begin within an hour. During the first six months, only breastmilk should be given, not even water. The third phase is to introduce complementary feeding after six months; during this period the type of foods may vary with the age.

Initiation of breastfeeding can improve with increased scientific knowledge and support, which should be available during pregnancy as well as immediately after birth. Increasing exclusive breastfeeding and complementary feeding requires a behaviour change and it is a process that can be achieved through skilful acts. It is not the same as delivery of some vaccine and health protection. It needs inputs both from services and families. Lack of exclusive breastfeeding is mostly due to the "not enough milk" feeling of many mothers, and needs to be addressed by building their confidence and counselling. To extend the duration of exclusive breastfeeding, women must be reached and supported early during the prenatal period, at the time of birth, and during the first few weeks/months of the post-partum period (when breastfeeding problems occur and women are likely to shift from exclusive to partial breastfeeding). Lack of proper complementary feeding is mostly due to lack of knowledge about nutrition and childcare. Interventions should focus on education and should start when the baby is around five-six months, and continue throughout the period of early childhood. To encourage positive decision-making on the part of the mother, her motivation to overcome problems when they arise, and her persistence in maintaining a recommended behaviour despite negative pressures, it is important that interventions are as close as possible to the time of desired behaviour.[29]

What Needs to be Done?

Invest Wisely

In his recent budget speech, the finance minister clearly articulated the understanding of ICDS among policy-makers. He said:

> The universalisation of the Integrated Child Development Services (ICDS) scheme is overdue. It is my intention to ensure that, in every settlement, there is a functional anganwadi that provides full coverage for all children. As on date there are 6,49,000 anganwadi centres. I propose to expand the ICDS scheme and create 1,88,168 additional centres that are required as per the existing population norms. Forty-seven per cent of children in the age group 0-3 are reportedly underweight. Supplementary nutrition is an integral part of the ICDS scheme. I propose to double the supplementary nutrition norms and share one-half of the states' costs for this purpose. I also propose to increase the allocation for ICDS from Rs 1,623 crore in BE 2004-05 to Rs 3,142 crore in BE 2005-06.

This suggests that we will have more anganwadi centres distributing supplementary food among young children. This approach, however, is inadequate. Indeed it has failed to achieve a significant reduction in child malnutrition for many years. A new approach is required, focusing on preventive interventions and behaviour change, rather than just doling out food.[30]

While we continue to provide food for older children, essentially tackling "hunger", infants and young children need greater attention to prevent child malnutrition and to ensure their proper development. Resources need to be reorganised with a clear focus on children under three, especially in cases of late pregnancy and in early infancy. Much more needs to be spent on skill building of front line workers, provision of counselling on infant feeding, and the continuum of care required for the survival and healthy development of infants and young children. Specifically, funds need to be allocated for implementing the *National Guidelines on Infant and Young Child Feeding* and the IMS Act (the legislative framework to protect breastfeeding). The preparation of the 11th Plan is an important opportunity to achieve these changes in financial allocations.

Reposition ICDS: The proposed shift of focus from older children to children under the age of three requires a change in the orientation of ICDS. One issue here is of training skills and multiple functions of the anganwadi workers, who rarely enter into a dialogue with families on infant feeding issues. Instead they spend most of their time distributing "supplementary nutrition" (SNP), which is a treatment approach for older children who are already suffering from malnutrition. This is not to blame the anganwadi worker for not doing something; she is not expected to. What is needed is to reposition ICDS as true child development programme rather than a food distribution programme. This, in turn, requires additional spending and high-level political commitment. Further, redefining the role of frontline workers is essential. First and foremost, the anganwadi worker should perform the role of a skilled counsellor.

Focus on care and counselling: The World Health Organisation (WHO) recently launched the *World Health Report 2005*, 'Making Every Mother and Child Count', which lays emphasis on issues mentioned in this paper and recommends a preventive approach. It also recognises that more than two-thirds of child deaths are related to poor infant feeding practices. Since most of these deaths occur during the first month of life, it is important to put in place an integrated package of interventions to save newborn babies. This can be done at the community level through trained healthcare workers with only a few months of training.[31]

Breastfeeding education should be one of the key components of this integrated neonatal package. In India, previous efforts to influence care seeking and infant feeding behaviour at home have tended to be those that save money or time for the health system, such as merely informing women (that too occasionally), "rooming in" and discouraging prelacteal feeds. In contrast, counselling and education are rarely implemented. This may be partly due to the fact that programme managers are not aware of the much higher benefits of counselling and education for optimal infant feeding. It is also true that these interventions are harder to implement effectively, and require more organisation, generation of additional resources, more highly motivated and skilled staff, and in some cases, new staff. Fortunately, most of the needed interventions can be delivered through existing services. However, specific infant feeding components need to be integrated effectively into these services and their overall quality and responsiveness need to be improved.

Integrate breastfeeding education in existing programmes: While planning to achieve the national goals for optimal infant feeding, one must not forget that it requires a universal approach. As the ICDS is expanding, there is an opportunity to impart counselling skills to new workers. Their curriculum should include at least three days of training in infant and young child feeding counselling. Existing ICDS workers should be given additional training. Similarly, in the context of the recently-launched National Rural Health Mission, the accredited social health activist (ASHA) must be properly trained in all areas, but should have at least three days of training in infant and young child feeding counselling. This will ensure basic education to impart correct information, and help all women to solve common problems related to feeding. The ASHA should also be trained to refer women to a higher level for complicated problems that may arise. This higher level support could be established by creating breastfeeding support centres or lactation clinics at the block

level, run by trained women with at least seven days of training.

The integrated management of childhood illness (IMNCI) being launched under the new RCH II programme in almost 125 districts is another opportunity to promote infant feeding skills. Urban hospitals staff and HIV counsellors should also be trained for counselling on breastfeeding. For those health workers from whom it is expected that they will counsel on breastfeeding, complementary feeding as well as HIV and infant feeding, the training package of seven days would be necessary. All these packages are based on WHO/UNICEF training courses and have been adapted in India by the Breastfeeding Promotion Network of India (BPNI). Needless to say, this component must also be included in pre-service training.

IYCF as key indicator of progress: If the national (10th Plan) goals of optimal infant feeding are to be achieved, progress in this field needs to be closely monitored and regularly reviewed. Exclusive breastfeeding for the first six months should be used as a lead proxy indicator of progress. The Planning Commission should immediately call for a state-specific review of its goals on breastfeeding and complementary feeding practices. The 11th Plan should address these issues clearly and with allocation of resources. If we are serious about preventing child malnutrition, the progress of exclusive breastfeeding should be reviewed every year in every state and district.

Conclusion

Making mother's milk more widely available to Indian babies depends on recognising its significance in the early health of the child. It requires active commitment of all state governments and the central government as well as health professionals.

Most interventions designed to improve exclusive breastfeeding practices and complementary feeding involve the healthcare system. Even those interventions that are implemented outside the healthcare system are affected by what happens within the system, since infant feeding behaviours and mothers' perceptions of optimal feeding practices are influenced by their interactions with the system. There is a wealth of evidence to show that what happens in the healthcare system sometimes supports or undermines optimal infant feeding practices. It is thus important to provide optimal infant feeding services and support to mothers and other household family members.

More importantly, efforts in health facilities need to be linked with outreach efforts so that interventions effectively reach women. This needs to become a higher priority within the healthcare system. What is required is completing the nutrition package of child health and deliver "infant feeding counselling" to all families as a service. While health deficiencies in Vitamin A, iron and folic acid, iodised salt are being addressed, the infant feeding component remains in the background. ICDS needs to change its mindset from distributing food for the treatment of malnutrition to preventing child malnutrition. The interventions suggested here thus, need political and financial commitments comparable to those that have been made to immunisation programmes. EPW

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Notes

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