PUBLIC HEALTH FOUNDATION OF INDIA

INDIA HEALTH BEAT

Supporting Evidence-based Policies and Implementation

THE WORLD BANK

Volume 5 Number 4
June 2011

ENHANCING OPTIMAL INFANT FEEDING PRACTICES IN INDIA

Arun Gupta[†], J. P. Dadhich[‡] and Shoba Suri[§]

Appropriate Infant and Young Child Feeding (IYCF) practices are critical to improving nutrition, child survival and development. As India struggles to improve nutrition, it needs to–urgently and proactively–enhance the rates of optimal infant feeding practices. These include initiation of breastfeeding within one hour of birth, exclusive breastfeeding for the first six months of life, introduction of complementary feeding at six months, and ensuring that children receive adequate complementary foods, both appropriate to their age in terms of quality and quantity along with continued breastfeeding for two years or beyond.

Why focus on IYCF practices?

Major killers of infants in India include neonatal infections, diarrhea and pneumonia. World Health Organization (WHO) estimates that 53 percent of pneumonia and 55 percent of diarrhea deaths are attributable to poor feeding practices during the first six months of life.[1] Initiation of breastfeeding within an hour of birth is known to reduce infection specific neonatal mortality, and this impact is independent of the effect of exclusive breastfeeding during the first month of life.[2,3] Sub-optimal breastfeeding is estimated to be responsible for 1.4 million child deaths and 43.5 million Disability Adjusted Life Years (DALYs), with non-exclusive breastfeeding during 0-6 months accounting for 77 percent (1.06 million) of the deaths and 85 percent of the DALYs.[4] Besides the role of appropriate breastfeeding in preventing Non-Communicable Diseases (NCDs) such as obesity, diabetes, and hypertension, it is also positively related with brain development.[5] Beyond six months, timely and age-appropriate complementary feeding of children, is critical to their growth and adequate nutrition.

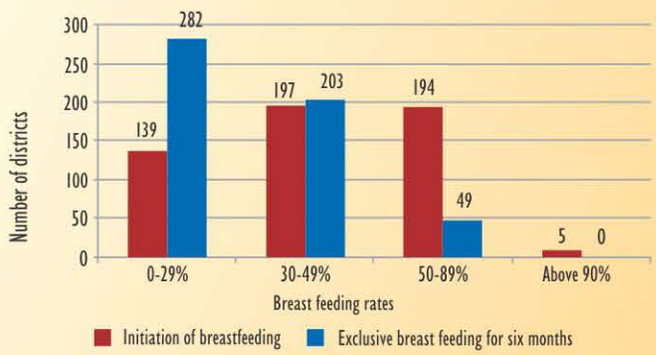
What is the current status of IYCF in India?

India has dismal rates of infant feeding practices and these are not rising

National rates for initiation of breastfeeding within one hour of birth is 24.5 percent; exclusive breastfeeding rapidly declines from the first month to the sixth, with only about 20 percent children being exclusively breastfed at six months of age. Introduction of complementary feeding along with continued breastfeeding between 6-9 months is 55.8 percent; and only 21 percent of children aged 6-23 months are fed according to all three IYCF recommended practices[i].[6] This means that 20 of India's 26 million children born annually are not exclusive breastfed for six months, and about 13 million children do not get timely and appropriate complementary feeding.

Rates of exclusive breastfeeding for six months have not improved much over the past two decades since India began measuring them.[6] In fact, a study indicates decline in breastfeeding.[7] There is wide variation amongst districts in India, with several districts showing very poor rates (Figure 1).

Figure I: Breastfeeding rates across districts



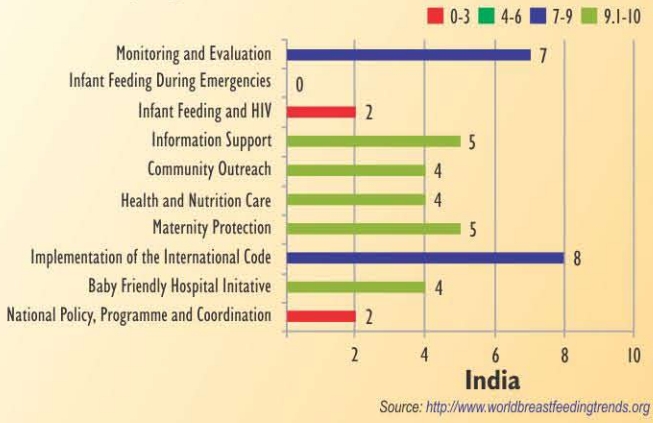
Source: District Level Health Survey, 2007-08; Ministry of Health and Family Welfare, Government of India.

The state of policy and programs on IYCF

The World Breastfeeding Trends Initiative (WBTi)-2008 report of India's policy and programs on IYCF [8] has found India wanting in almost all the 'ten' identified areas of action (Figure 2). There are considerable gaps in Baby Friendly Hospital Initiative (BFHI), maternity protection, community outreach and information support. Even worse

[†]MD (Pediatrics) and Member, Prime Ministers' Council on India's Nutrition Challenges; [‡]MD (Pediatrics) and National Coordinator of Breastfeeding Promotion Network of India; [§]Nutritionist and Coordinator Research Program, Breastfeeding Promotion Network of India

Figure 2: WBTi status report on India's policy and programs for IYCF on a scale of ten



Source: http://www.worldbreastfeedingtrends.org

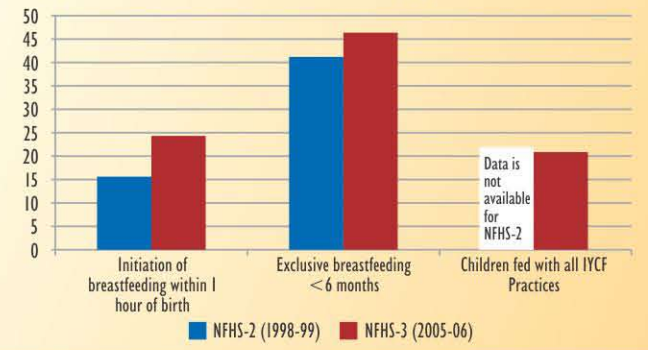
is the situation for Infant Feeding during emergencies, HIV, and in terms of national policy, program and coordination.

Why does this status persist?

Several factors contribute to the existing situation–the lack of improvement and the worsening trend. These include:

Policy and program gaps: Despite several Government of India (GoI) programs 'promoting' optimal feeding practices, India has not shown any substantial improvement in breastfeeding rates (Figure 3). Lack of clear program objectives and targets, resources–financial and human, and strategies and capacities are critical policy and program gaps that need urgent addressing to reverse the decline in breastfeeding.

Figure 3: Status of infant feeding practices in India



Social and cultural: The erosion in the value of breastfeeding, lack of accurate and unbiased information on optimum infant feeding practices available with households and mothers, and inadequate support to breastfeeding mothers are some of the factors responsible for poor IYCF rates. Practices of waiting for mother's milk to 'come in', administering pre-lacteal foods such as honey, waiting for the aunt of the baby or for the moon to initiate breastfeeding and such, are prevalent in some communities.[9] Complementary feeding is poorly understood in the community leading to poor complementary feeding practices (timeliness, quality and quantity). An increase in women joining work outside of home without appropriate support mechanisms for breastfeeding is yet another major cause for this decrease. Women's education and knowledge of infant nutrition, status both at home and the workplace, and availability of support from the family, community, health system and at the work place–all have a bearing on how infants are fed.

Lack of skilled support from the health workers: Health workers, at the facility and the community level, lack necessary knowledge and appropriate skills to help women initiate breastfeeding as well as support maintenance of exclusive breastfeeding.[10] While increase in institutional births presents an increased opportunity for counseling on infant feeding practices, the significantly enhanced case volumes and inadequate human resource capacity undermines this opportunity.

Commercial promotion of baby foods: The huge market for the 'infant formula' as an alternative to breastfeeding and the industry's pervasive promotion techniques has undermined women's confidence in breastfeeding.[11] Corporates are known to have misused health systems and have even contributed to the practice of separating mothers and babies soon after birth in facilities.[12] The Parliament of India while enacting the Infant Milk Substitutes Feeding Bottles, and Infant Foods (Regulation of Production, Supply and Distribution) Act 1992 (IMS Act) clearly recognizing that promotion of breast milk substitutes is more pervasive than promotion of breastfeeding and its possible negative impact on breastfeeding, labeled it a dangerous trend leading to disease and malnutrition among children.[13] Nevertheless, incentive-loaded advocacy for infant formulas among health personnel continues.

What strategies and actions can enhance optimal IYCF practices?

Actions promoting optimal IYCF practices so far have been ad-hoc, piecemeal and limited to imparting some information to women or families. Adopting a comprehensive approach to enhance optimal IYCF practices requires the following set of seven key strategies.

Protection

Following the International Code of Marketing of Breast Milk Substitutes (1981), the Government of India (GoI), in 1993 enacted the IMS Act, and further strengthened it in 2003 to include a ban on all kinds of promotion of baby food for children under two. Despite GoI clarifications, pervasive promotion by baby food manufacturers or their front organizations continues. The key action required in this regard is to make all health workers aware of the law, so that they can exercise due discretion in the face of promotion by baby food companies. Further, implementation of the IMS Act, both in letter and spirit, should be strengthened to end incentives for promoting infant formulas.

Promotion

This strategy calls for reaching people with accurate and unbiased information, and enabling access to skilled 'one-to-one' counseling and support for all women to promote breastfeeding and complementary feeding. To fully grasp the importance of this strategy, it is critical to understand the role of two hormones, prolactin and oxytocin in successful lactation. Prolactin produces milk in response to suckling, and oxytocin helps milk flow from the breast to the baby's mouth. Oxytocin production is influenced to a large extent by the mother's state of mind, and fears/doubts/stress/pain or anxiety can impede the flow of breast milk from mother to the baby. Fear and anxiety amongst mothers about 'not having enough milk' must be addressed through skilled workers using 'confidence building measures', an approach very different from that of just 'delivering a message'.

There is evidence to demonstrate the effectiveness of counseling. The WHO Multicentre Growth Reference Study (MGRS) in India successfully enhanced breastfeeding and complementary feeding practices. With mothers adequately supported by lactation support teams, three-quarters of infants in the study were exclusively/ predominantly breastfed for at least 4 months, 99.5 percent began to be fed complementary foods by 6 months of age, and 68.3 percent were partially breastfed until at least the age of 12 months.[14] A 2011 meta analysis of 53 studies including a cluster-Randomized Controlled Trial (RCT) from India has demonstrated that prenatal and postnatal counseling increased exclusive breastfeeding manifold and skilled 'one-to-one' counseling (as opposed to group counseling) enhanced rates of exclusive breastfeeding for six months.[15] Positive effects of training have been well demonstrated by field experience from Uttar Pradesh.[16] Nutrition related education and counseling for mothers coupled with provision of complementary food has significantly impacted growth in children.[17]

Therefore, institutionalization of appropriate training programs and systems to ensure that all functionaries, at the facility and the community level, acquire requisite IYCF counseling skills is essential. In health facilities, setting up counseling centers with skilled counselors must be considered; at the community level the trio of Aanganwadi Worker (AWW), Accredited Social Health Activist (ASHA), and Auxiliary Nurse Midwife (ANM) could provide this service.

Support

For exclusive breastfeeding rates to go up this strategic action is most critical. Sectors involved with health, nutrition, disaster management, labor, women's development etc. must work together to facilitate ways for mothers and their babies to be together for at least six months. While GoI and some state governments provide a six month maternity leave to its employees, women in the informal sector are bereft of this critical support. Thus, legislation for universal provision of six months of maternity leave is called for. Further, to promote and sustain breastfeeding amongst working women, it is essential to ensure that crèches at work place, flexi working hours, breaks for breastfeeding and appropriate physical space to express breast milk are available at scale.

Coordination

An institutional mechanism for strategic planning, operational and technical support, coordination and review of IYCF activities is essential. Concerted action must be taken to set up appropriate bodies responsible for such functions at the national level as well as the state level, build their capacity and allocate adequate financial resources.

Research

A task force should be established to engage in qualitative and quantitative research to generate information around breastfeeding and complementary feeding in various settings. Research should continually inform both policy and program. Evaluations conducted every 3-5 years must identify gaps in policy or operations support and devise action plans to bridge them.

Information management

A management information system capable of collating and analyzing appropriate information on breastfeeding and complementary feeding from national and district based surveys is important. Systematic review of performance related data at policy and program management levels is key to achieving outcomes.

Education and training

Curriculum at secondary and higher education levels must dedicate space for benefits of breastfeeding and appropriate infant and young child feeding practices. Female nursing staff and nutritionists must be specially trained to support breastfeeding, complementary feeding, continued breastfeeding, HIV-infant feeding, and for monitoring growth at counseling centers. This demands institutionalization of appropriate training programs and a cadre of national, state and district based trainers to train frontline workers and functionaries at the facility and family levels. At the family level, the trio of AWW, ASHA and ANM in the least, trained for basic knowledge and skill for promoting breastfeeding and complementary feeding along with growth monitoring, is necessary.

Recommendations

In conclusion, for achieving higher rates of optimal breastfeeding practices, several policy measures in tandem with comprehensive action are needed. Priority policy recommendations are:

1. Provide a 'service guarantee' for infant feeding counseling both at family and facility level.
2. Allocate a budget for enhancing IYCF practices.
3. Establish a clear coordination mechanism at the centre,

state and district levels for capacity building monitoring and supervision of IYCF practices.

4. Craft and implement a universal policy for maternity entitlements and provision of crèches.
5. Strengthen awareness and enforcement of the IMS Act, especially enforcement of the prohibition of all direct and indirect efforts by baby food companies and their 'front organizations'.
6. Support research–qualitative and quantitative, at state, district and block levels on IYCF practices to provide empirical data that informs policy and action.

[i]WHO recommended IYCF practices are: Breastfed children of 6-23 months to be fed three or more food groups daily and a minimum number of times according to age (twice a day for 6-8 months and at least three times a day for 9-23 months). Non-breastfed children aged 6-23 months to be fed milk or milk products, at least four or more food groups, and four or more times a day.

REFERENCES:

[1] Lauer JA, Betrán AP, Barros AJD and Onís MD. Deaths and years of life lost due to suboptimal breastfeeding among children in the developing world: a global ecological risk assessment. Public Health Nutrition 2006 Sept;9: 673-685.

[2] Edmond KM, Kirkwood BR, Amenga-Etego S, Owusu-Agyei S, Hurt LS. Effect of early infant feeding practices on infection-specific neonatal mortality: an investigation of the causal links with observational data from rural Ghana. Am J Clin Nutr 2007;86:1126-1131.

[3] Edmond KM, Zandoh C, Quigley MA, Amenga-Etego S, Owusu-Agyei S, Kirkwood BR. Delayed breastfeeding initiation increases risk of neonatal mortality. Pediatrics 2006;117: e380-e386.

[4] Black RE, Allen LH, Bhutta ZA et al. Maternal and child undernutrition: global and regional exposures and health consequences. The Lancet 2008;371:243-260.

[5] Horta BL, Bahl R, Martines JC, Victora CG, editors. Evidence on the long-term effects of breastfeeding: systematic reviews and meta-analysis. World Health Organization, Geneva; 2007.

[6] International Institute for Population Sciences (IIPS) and Macro International. 2007. National Family Health Survey (NFHS-3), 2005-06;India:Vol I.Mumbai:IIPS.

[7] Walia BNS, Gambhir SK, Sron SR, Choudary S. Decline in breastfeeding practices in urban population of Chandigarh during a decade. Indian Paediatrics 1987;24:879-88.

[8] World Breastfeeding Trends Initiative (WBTi). Available from http://www.worldbreastfeedingtrends.org/report/WBTi-India-Assessment-Repor-2008.pdf

[9] World Health Organization: Collaborative Study on Breastfeeding. WHO, Geneva;1981.

[10] World Health Organization: Infant and young child feeding: Model chapter for textbooks for medical students and allied health professionals. WHO, Geneva; 2009.

[11] Coutsoudis A, Coovadia HM, Judith KM. The breast milk brand: promotion of child survival in the face of formula-milk marketing. Lancet 2009;374:423-25.

[12] Gabrielle P. The politics of breastfeeding. UK: Pinter & Martin; 2008.

[13] IMS Act 1992. Ministry of Women & Child Development, Government of India. Available at: http://www.bpni.org/IMS-ACT/INDIA_LAW_PROTECT_BREASTFEEDING.pdf

[14] WHO Multicentre Growth Reference Study Group. Breastfeeding in the WHO Multicentre Growth Reference Study. Acta Pædiatrica 2006; Suppl 450:161-26.

[15] Imdad A, Yakoob MY, Bhutta ZA. Effect of breastfeeding promotion interventions on breastfeeding rates, with special focus on developing countries. BMC Public Health 2011; 11(Suppl 3):S24.

[16] Reaching the Under 2's. Universalizing delivery of nutrition interventions in district Lalitpur, Uttar Pradesh; Kushwaha KP (ed). Available at: http://www.bpni.org/BFHI/Reaching-the-under-2S-Universalising-Delivery-of-Nutrition-Interventions-in-Lalitpur-UP.pdf

[17] Imdad A, Yakoob MY, Bhutta ZA. Impact of maternal education about complementary feeding and provision of complementary foods on child growth in developing countries. BMC Public Health 2011; 11(Suppl 3):S25.

For further information on '**Enhancing optimal infant feeding practices in india**' contact Dr. Arun Gupta at arun@ibfanasia.org

Editors: **Gerard La Forgia**, Lead Specialist, HNP Unit, The World Bank; and **Krishna D. Rao**, Public Health Foundation of India, New Delhi.

India Health Beat is produced by the Public Health Foundation of India and the World Bank's Health, Nutrition and Population unit located in Delhi. The Notes are a vehicle for disseminating policy-relevant research, case studies and experiences pertinent to the Indian health system. We welcome submissions from Indian researchers and the donor community. Enquiries should be made to Nira Singh (nsingh2@worldbank.org).