

USAID'S INFANT & YOUNG CHILD NUTRITION PROJECT

Summary of sociocultural and epidemiological findings on infant and young child feeding in 11 countries

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Introduction

The US Agency for International Development's (USAID) Infant & Young Child Nutrition (IYCN) Project aims to improve nutrition for mothers, infants, and young children, and prevent the transmission of HIV to infants and children. Toward this end, IYCN has completed a series of reviews of qualitative and quantitative data, as well as conducted our own formative research. We carried out this work to understand the key practices in infant and young child feeding and maternal nutrition, why these practices are common, and what factors influence the behaviors. These studies have been done in the following countries: Côte d'Ivoire, Ethiopia, Ghana, Haiti, Kenya, Lesotho, Malawi, Madagascar, Mozambique, Nigeria, and Zambia. This summary presents a consolidation of these data and existing literature from these countries, highlighting common socio-cultural practices related to feeding infants and young children and dietary practices of pregnant and lactating women, and providing a framework for a focused strategy for enhanced IYCN programming applicable to all countries.

Understanding the data

Quantitative data on anthropometric indices and infant feeding behaviors have been obtained from national and regional health surveys such as Demographic and Health Surveys, Multiple Indicator Cluster Surveys, and Ministry of Health surveys. The qualitative data comes from IYCN studies, grey literature, and published peer-reviewed studies on infant and young child nutrition. Behavior matrices were created through a triangulation of data that focus on the most important practices. Using data from this range of sources provides a broader understanding of the extent and types of malnutrition at a population level and the challenges in improving feeding patterns at the local level.

It can be challenging to interpret these diverse sources of data, given that population-level data provide the general context of practices in a region, but may not be directly relevant to a specific locale, household, or individual's situation. Moreover, efforts to explain the notion of risk based on a population estimate may be difficult for any one individual to understand.

On the other hand, qualitative data provide culture-specific detail on typical behaviors within households and can lead to a deeper understanding of the context of infant feeding. However, there can be significant variation in nutrition practices within a population, and it may be difficult to identify the differences between people's beliefs and their behaviors. This is highlighted in a study of beliefs and behaviors related to the feeding of vitamin A-rich foods in Nepal, where interviews with mothers demonstrated strongly held beliefs related to feeding during illness that were not borne out when their children's eating patterns were directly observed during that subsequent year. In fact, children were fed diets similar to all other children at similar time points which included foods that were clearly prohibited based on the mother's own belief system (Shankar AV, personal communication). In Haiti, qualitative studies suggest that many families know about appropriate feeding behaviors; however, actual practices may differ considerably, given that malnutrition rates are extremely high. These studies illustrate that the link between belief and behaviors may be tenuous, and therefore messages for positive

feeding must be reinforced through various methods and communication channels and supported by assessments of actual behavior change.

The following summary is based on a consolidation of information from the various IYCN country reviews. These reviews clearly document the distinct epidemiological and cultural patterns of infant and young child feeding in each of the IYCN countries. However, there are also significant areas of commonality between countries. It is these unifying themes that we hope to draw from the country reports in order to garner a greater understanding toward enhancing infant and young child nutrition and health.

Report organization

This report is laid out as follows: The first section outlines the common challenges to effective infant and young child feeding practices during the developmental stages from birth to two years of age. Under each topic, several country-specific examples are provided. The second section examines the larger socio-cultural and programmatic issues affecting effective implementation of known interventions.

Section One

Key points related to behavior change

Individual feeding practices and behaviors appear to be mediated or predicated by the following:

- 1) Concerns for the best interest of the child
- 2) Lack of awareness of specific alternatives
- 3) Convenience
- 4) Conflicting information on best practices
- 5) Lack of facilitation, support, and follow-up for improved behaviors

For each country or region, there are a few cultural beliefs that are driving behaviors. Understanding the nature of these beliefs around key developmental milestones of the child as well as knowledge of the primary barriers and facilitators to positive feeding is critical to enhancing the strength and effectiveness of the communication between health care providers and caregivers in these environments.

Common challenges for IYCN from birth to two years of age

Feeding first milk (colostrum) and pre-lacteal feeds

Key points

- There is widespread practice of the disposal of colostrum and/or provision of pre-lacteal feeds directly after birth. Examples:
 - In some countries, such as Ghana, there are clear prohibitions to putting the child on the breast unless the milk is deemed clean.
 - Colostrum is often considered to be spoiled milk (e.g., in Mozambique) and should not be given to the child.

- Pre-lacteal feeds are provided during the first days to cleanse the digestive system (Ghana).
- In Ethiopia, mothers delay breastfeeding until the breasts are cleared of the “dirty” milk (colostrum), which is believed to cause diarrhea, vomiting, and cramps.
- Having a skilled birth attendant at delivery or delivering in an institution increases the likelihood that the infant will be placed on the breast within the first hour after birth.

The table below describes the variability in early initiation of breastfeeding, use of pre-lacteal feeds, and use of water for the child during the first six months.

Table 1: Data on rates for initiation of breastfeeding and use of pre-lacteal feeds by country

Country	Initiation of breastfeeding	Pre-lacteal feeds
Côte d'Ivoire	57% infants BF within 24 hours, 33% BF within 1 hour (DHS 1999)	No available data
Ethiopia	86% infants BF within 24 hours, 69% BF within 1 hour (DHS 2005)	30% within first 3 days (DHS 2005)
Ghana	82% infants BF within 24 hours, 52% BF within 1 hour (DHS 2008)	18% within first 3 days (DHS 2008)
Haiti	71% infants BF within 24 hours, 44% bf within 1 hour (DHS 2007)	34% within first 3 days (DHS 2007)
Kenya	86% infants BF within 24 hours, 58% BF within 1 hour (DHS 2008)	42% within first 3 days (DHS 2008)
Lesotho	92% infants BF within 24 hours, 53% BF within 1 hour (DHS 2009)	30% within first 3 days (DHS 2009)
Malawi	96% infants BF within 24 hours, 70% BF within 1 hour (DHS 2004)	5% within first 3 days (DHS 2004)
Madagascar	88% infants BF within 24 hours, 62% BF within 1 hour (DHS 2008)	38% within first 3 days (DHS 2008)
Mozambique	63% BF within 1 hour (MICS 2008)	16% within first 3 days (DHS 2003)
Nigeria	68% infants BF within 24 hours, 38% BF within 1 hour (DHS 2008)	56% within first 3 days (DHS 2008)
Zambia	93% infants BF within 24 hours, 57% BF within 1 hour (DHS 2007)	9% within first 3 days (DHS 2007)

BF=breastfed, DHS=Demographic and Health Surveys, MICS=Multiple cluster indicator survey

Challenges to exclusive breastfeeding up to six months of age

Key points

- Provision of water is considered a necessity in most regions, especially during the hot climates.

- In Haiti, sugar water is provided to help the infant sleep.
 - In Mozambique, mothers think that infants cry sometimes because they are thirsty for water.
 - In many countries, such as Malawi, breastmilk is considered food and not liquid. Therefore, water is perceived to be needed to supplement breastmilk.
 - Water or cow's milk diluted with water is given to babies to reduce "abdominal cramps" in Ethiopia.
- Other liquids or foods were given to protect the child.
 - In Lesotho, mothers said most infants were given other liquids in addition to breastmilk between 1 and 6 months of age to protect against illness.
- Complementary feeding is started early due to many concerns (often around 2–4 months of age).
 - In many countries, it is because there is the belief that the baby needs and wants foods in addition to breastmilk. For example, in Lesotho, mothers said semi-solid foods were introduced because infants sometimes cried after breastfeeding, a sign that breastmilk was not enough, or reached out for food when others were eating.
 - In Ghana, early initiation of complementary feeding is often attributed to fretfulness of the child, which mothers interpret as insufficient breastmilk to satisfy the child's hunger.
 - In Ethiopia, cow's milk and other foods are given in addition to breastmilk, because mothers believe that breastmilk cannot provide all the child's nutritional needs.
 - If the mother was not well-nourished, there were concerns that her breastmilk would not be adequate for the baby, and therefore, she would need to supplement the infant earlier.
 - In Zambia, fathers particularly mentioned that some women do not produce enough milk or nutritionally adequate milk because they do not consume enough food themselves.

Complementary feeding challenges

Key points

- Poor-quality complementary foods.
 - In Nigeria, there is generally poor knowledge and information on complementary feeding. There are many food taboos against the use of animal food, such as meat and eggs for children.
 - In Haiti, there is concern that feeding too much dense food will result in a big belly and poor health.
 - IYCN research from Kenya found complementary foods are usually sub-standard in nutrient quality, typically comprising bulky starches that are low in energy and other nutrients.
 - Street foods have a significant and deleterious effect on infant health due to contaminated or poor-quality foods.
- Low variety of foods.

- Economic factors and time contribute significantly to poor variety in the diet for mothers and children.
- In Ethiopia, only 29 percent of children were given complementary foods with minimum and adequate dietary diversity.
- In Malawi, more than 40 percent of children did not have an adequately diverse diet.

Proper feeding during and after illness

Key points

- In general, there is a lack of knowledge on how to feed infants who are ill. In most cases, caregivers significantly reduce or stop complementary feeding during this time.
 - In Mozambique, mothers were found to give less food, especially in cases of diarrhea, as it is thought to increase the diarrhea.
- Continued breastfeeding during illness appears to be the normative behavior in most countries.
 - In Haiti, only about 20 percent of the mothers reported increasing breastfeeding during illness.
- Catch-up feeding (feeding the child extra food after illness) to make up for lost nutrition is not commonly seen, especially for those living in rural or impoverished areas.
 - In Kenya, it was reported that less than 10 percent of mothers increased food after illness.
- Caregivers often take their cue from infants on what and how to feed during illness.
 - In Mozambique, mothers said that children often lost their appetite and therefore were not pushed to eat their normal meals.
- Education of the mother and wealth of family contribute significantly to whether the child is taken for health care and if additional foods and or treatments are provided.

Section Two

This section focuses on the larger socio-cultural and programmatic themes that emerged from the IYCN reviews.

The issue of history

One theme repeated in the reports, especially within the context of feeding during HIV, is the continual change in infant feeding recommendations over time. This has led to misunderstandings of the current science around HIV and infant feeding. This has also caused confusion over the best infant feeding practices not only by the mother and other caregivers but also by various health care providers.

All current IYCN programming must take into account the challenges of navigating various opposing infant feeding recommendations within the cultural constructs of risk, blame, and shame. For example, despite the fact that an infant may be at greater risk of death due to diarrheal disease from unhygienic preparation of non-breastmilk foods, the knowledge that HIV

can be transmitted through breastmilk can lead to blame on the mother for placing her child at risk for HIV. Knowledge and open discussion of these issues at the community level are critical to gain greater support for exclusive breastfeeding for HIV-positive mothers.

Integrity of communication of infant feeding messages

There are several factors that are impeding communication of appropriate feeding messages to caregivers:

- 1) There are various members of the mother's (caregiver's) social support network providing (sometimes conflicting) information.
- 2) There is little support to carry out the proposed improved feeding practice.
- 3) There is little support for follow-up to ensure that the improved feeding practice has been attained.
- 4) The information provided is often not seen as relevant or is not well-understood by the caregiver (e.g., what is meant by 'variety of foods').

Including key supporting members

In addition to the health care providers, several country reports (e.g., Kenya, Ghana, Zambia, and Ethiopia) pointed to two key populations that are critical to the support of the mother (caregiver) of the infant: (1) grandmothers (other elder women), and (2) husbands (men).

As depicted in the diagram below, these populations will need to work in tandem, supporting similar infant feeding messages and supporting the mother toward positive feeding practices. An IYCN review of the influence of grandmothers and men concluded that positive reinforcement of infant feeding practices can be strongly supported if grandmothers and men are included in health activities. Evidence from other research has documented their positive impacts on child health (WHO, 2007; Aubeil 2010).

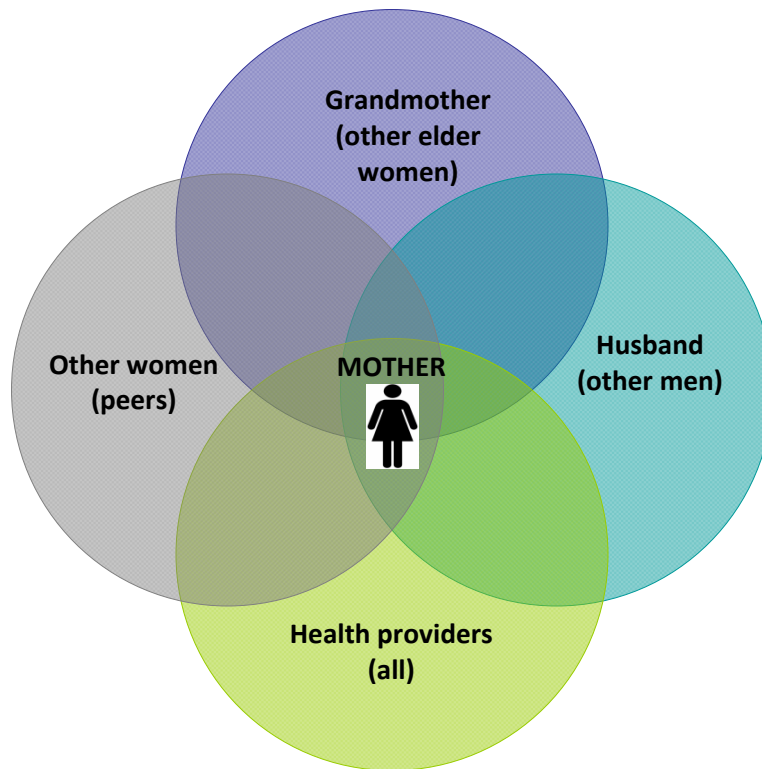


Figure 1: Key supporting members from the community involved in promotion of maternal and child health and nutrition issues

Inclusion of these additional family members in nutrition education programs increases the likelihood of mothers (caregivers) carrying out the proposed feeding practices. In Haiti, contrary to the predominant view that grandmothers are a deterrent to exclusive breastfeeding, grandmothers were found to be overwhelming supportive of this practice.

Creating client-specific relevant messages and ‘reframing’ nutrition

Generic infant feeding messages without specific knowledge of the existing household context, woman’s understanding, and availability of foods make adoption of improved feeding practices extremely difficult. A primary example is that of promoting diet diversity for both the mother

and child. Unless a list of foods, or food groups are provided with examples of what is a variety of foods that are easily acquired, there is little probability that the mother (caregiver) will know how to act on this information. In Zambia, community health workers spoke about the effectiveness of door-to-door programs. One community health worker said: “The program is successful because it is one-to-one and the parents feel free to talk about the problems or concerns and ask questions. The program also brings malnutrition awareness to the community. I would say that these programs are very beneficial because cases of malnutrition are very low here despite having challenges such as limited funds and supplies.”

Generally, there is a low prioritization on nutritional issues within the household and community because nutrition is not seen as urgent as compared to other issues, such as acute illnesses. Reframing nutrition and linking knowledge with client-specific practices and observing the outcomes related to child growth, health, well-being, capacity to learn, etc. may help bring nutrition into the forefront of caregiving in families.

In Kenya, IYCN research pointed to the need for physical and psychosocial support, including individual mentoring and peer groups, targeting mothers during the weaning period, as well as increased follow-up for the infant to monitor for growth faltering and morbidities. Follow-up on the specific behavior change with the mother was identified as critical, ensuring positive infant feeding patterns. Actual behavior change can then be supported through follow-up by the health provider with the assistance of key members in the household.

Effective infant feeding programming

IYCN has focused on understanding the community-level context for maternal, infant, and child feeding behaviors. Through these reviews, they have highlighted the critical role of key family members in supporting infant and child feeding activities, especially grandmothers and fathers.

In addition, in recognition of the key role that health care personnel play in communicating nutrition messages, there has been a concerted effort by IYCN to build human resource capacity at the health center- and community health-worker level. The emphasis has been on training health service delivery personnel in counseling techniques so that they can more effectively engage with women around feeding and health.

Conclusion

The IYCN reviews provide a wealth of information on country-specific beliefs and infant feeding behaviors that can be used for the promotion of improved infant and child health. Enhancing the integrity and strength of the communications among key caregivers and household members as well as supporting mothers toward positive behavior change is critical for improved infant and child health. While country-specific cultural barriers to appropriate infant feeding may vary, there are key decision points along the child’s growth trajectory that can be focused on and effectively addressed. Moreover, enhanced human resource capacity at all levels of health programming that focuses on facilitating appropriate behavior change will substantially support pregnant and lactating women as they interact with the community health system along the continuum of care.

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