PN-ABZ-605

A Guide to Qualitative Research for Improving Breastfeeding Practices

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June 1996

The Manoff Group

Wellstart International's Expanded Promotion of Breastfeeding (EPB) Program

This activity was supported by the United States Agency for International Development (USAID) under Cooperative Agreement No. DPE-5966-A-00-1045-00. The contents of this document do not necessarily reflect the views or policies of USAID.

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ACKNOWLEDGMENTS

This manual came about as the result of cooperation and efforts of several individuals and groups. Chapter One on the behavioral issues was drafted by Carol Baume, and Chapter Two and Three on formative research and strategy formulation was drafted by Michael Favin. The Manoff Group completed the guide based on these two drafts, and were responsible for formulation of the appendices. Wellstart International's Expanded Promotion of Breastfeeding (EPB) Program finalized the guide.

EPB and the authors would like to thank the following individuals who took the time and effort to review this guide. Their comments and suggestions are most appreciated.

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ACRONYMS

BHU	Basic health unit
CBD	Community-based distributor
CHEW	Community health extension worker
DHS	Demographic and Health Surveys
EPB	Wellstart International's Expanded Promotion of Breastfeeding Program
FGD	Focus group discussion
HW	Health worker
KAP	Knowledge, attitudes, and practices
LAM	Lactational amenorrhea method
LHV	Lady Health Visitor
MCH	Maternal and child health
MOH	Ministry of Health
NGO	Non-governmental organization
ORS	Oral rehydration salts
PHC	Primary health clinic
RHC	Rural health center
TBA	Traditional birth attendant
TIPS	Trials of improved practices
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
VHW	Village Health Worker
WHO	World Health Organization

PREFACE

In late 1991, with funding from the U.S. Agency for International Development (USAID) Office of Health and Nutrition, Wellstart International's Expanded Promotion of Breastfeeding (EPB) Program was established to broaden the scope of global breastfeeding promotion and to work towards overcoming barriers to breastfeeding at all levels. Under subcontract to EPB, The Manoff Group, Nurture, Georgetown University, and the Population Council have performed valuable work in these efforts. EPB has collaborated with public and private organizations in 35 countries to promote improved breastfeeding practices in developing countries. In several countries, the project has funded and helped conduct a variety of mostly qualitative studies. These have helped the country teams to understand the causes of detrimental infant feeding practices and to design more effective and feasible program actions. This guide was prepared to share these and other recent experiences.

In preparing this guide, The Manoff Group played the lead role. It is intended primarily to assist persons with some experience in qualitative research but not in breastfeeding-specific research. In addition to addressing the behavioral issues of interest to this audience (mainly in Chapter 1), the guide provides some detail on methods for planning, collecting, analyzing and using qualitative information. The appendices contain tools and examples of research plans, question guides, etc. Readers desiring even more detail and tools for qualitative research should consult *Designing by Dialogue*, which should be available soon from USAID.

A brief word about terminology may be useful. The term *consultative research* is used to indicate mostly qualitative methods used in an iterative process through which researchers and respondents jointly contribute to defining improved practices that are both practically feasible and technically effective, and to designing a strategy for promoting these practices. As defined in *Designing by Dialogue,* consultative research "uses several quick, interactive information gathering methods with mothers and other key people, during which important scientific information and key cultural and personal concerns are examined and 'negotiated,' to arrive at feasible, acceptable, and effective strategies to improve health-related behaviors." While quantitative research methods (such as 24-hour dietary recalls and structured observations) certainly have a role in planning strategies to achieve behavior change, qualitative methods should be the centerpiece of such research. *Qualitative* implies a minimum of researcher-directed questions and a relatively small sample of respondents, whose perceptions, experiences, and behavior are investigated in great depth. Consultative research enables the people most involved in carrying out actions to have an important say in what those actions should be and how they should be carried out. A familiar, closely related term is *formative research*. Formative research is information collection for the purpose of program planning. It can use either qualitative or quantitative methods, but this guide emphasizes qualitative methods.

Ideally, the attitude of the qualitative researcher should be that current perceptions and practices are not "wrong" because they show "ignorance" of biomedical "truth" but rather that they are the product of accumulated experiences and influences that need to be understood as part of the process of improving health. The only justification for programs trying to modify practices is that working with people to move mothers towards optimal breastfeeding practices will have a clear benefit to child health.

INTRODUCTION

Formative Research on Breastfeeding

What Can Planners Learn from Formative Research on Breastfeeding?

- What are current breastfeeding and child feeding practices?
- Why do people do what they do?
- What useful (health-promotive) changes in behavior are feasible?
- What are the best ways to promote and support these changes in practices?

Breastfeeding and weaning practices have a crucial and well documented impact on infant and young child mortality through their close relationship to malnutrition, diarrhea, pneumonia and other infections, vitamin A status, and birth intervals.

Improper breastfeeding practices constitute a priority public health problem. Thus, planners need to collect basic information from Demographic and Health Surveys (DHS), community studies, or other existing sources. One guide for doing this (Griffiths and Anderson) suggests ways of collecting information on the following areas:

- Country background (socio-demographic profile; infant and child mortality; infant nutritional status; and, contraception/lactational amenorrhea)
- Nature and magnitude of breastfeeding practices, vis a vis optimal practices (breastfeeding practices and experiences; mothers' beliefs and attitudes; and, household and community members' participation, beliefs, and attitudes)
- Policy, legal, and work environment (national breastfeeding policy; regulation of marketing and promotion of breastmilk substitutes; and, women's work environment)
- Health services (formal health services (including: prenatal care; hospital/clinic deliveries; immediate postpartum and infant care; health staff's beliefs, practices, training, and information sources; and, integration of breastfeeding promotion in health and family planning programs) and traditional health care providers (including: prenatal care, deliveries, and postpartum care)
- Training programs (formal health care providers (pre-service); formal health care providers (in-service); and, traditional practitioners)
- Information, education, and communication activities (overall efforts; regulation and policy; and, specific activities: mass media, interpersonal, clearinghouse)
- Support to women (breastfeeding support groups, etc.)
- Local financing and donor assistance

Information gathering from secondary sources is essential at the beginning of the process, but since planners' interest is in designing effective action to improve *practices*, they need to gain a better understanding of why current practices exist, which normally requires new research. This guide describes a general methodology and various methods for undertaking this consultative research process.

Although related to both anthropological and market research, the consultative methods described are distinct from both:

- Like *anthropological research*, the methods are mainly qualitative. But they often use slightly larger and more diverse samples and may not go as in-depth into practices and reasons for them. The main distinction, however, is that consultative methods are much more geared to designing strategies for *modifying* practices (improving them in public health terms).

- Like *market research*, formative research on breastfeeding aims to define an attractive product (improved breastfeeding practices) and to promote it effectively (i.e. to discover and communicate effective motivations). As in commercial marketing, an important component of program actions may be to overcome the competition (powdered milk and other early supplements). But consultative research is more in-depth than most market research and it has no commercial product to promote or distribute. Also, it examines the broader context in which individual mothers live (policy, institutional, and cultural) to understand barriers or *resistances* to improved practices -- attitudinal, cultural, logical, or economic obstacles -- and to learn ways to overcome them.

The purpose of formative research on breastfeeding is to develop program actions that will promote improvements in breastfeeding practices that, in turn, will improve maternal and child health. The research should enable planners to develop *comprehensive behavior change strategies* for achieving these improvements, and the actions planned should be both *effective* from a technical, medical point of view and *feasible* from the points of view of mothers, communities, and health workers. Comprehensive strategies may include not only communication activities but also legislation, enforcement of laws and regulations, day-care, hospital norms, health worker training, etc.

The basic phases described in this guide are a review of existing information; exploratory research with mothers, influencers, and health workers; trials of improved practices (with mothers); and research to obtain reactions to the draft strategies and messages and to refine them.

Conducting all of these phases may well take as long as six months and cost more than US$20,000, an undertaking that is not feasible in all circumstances. Adaptation of the methodology to the specific circumstances are recommended. By spending time to clarify what is known and what remains critical to find out, planners can streamline the process from planning to reporting, reducing the expenditure of resources -- human, financial, and time.

Some may question the need for expending any resources on formative research. It is true that a great number of common patterns in current breastfeeding beliefs and practices have been

learned from experience. Yet, as Chapter One illustrates, there is also a tremendous variation in current practices and reasons for them among countries and cultures. Most program efforts that aim to modify breastfeeding practices will be significantly more effective if they utilize some of the qualitative research methods described below.

Range of Contexts

A wide range of public and private programs may be interested in promoting improved breastfeeding practices. These include programs intended to:

- promote breastfeeding for multiple health, nutritional, economic, and emotional benefits;
- reduce vitamin A deficiency;
- reduce wasting from childhood illness;
- improve young child feeding/weaning practices;
- promote child spacing;
- prevent diarrheal diseases and acute respiratory infections; and,
- reduce child malnutrition or improve child health in general.

Thus, breastfeeding may constitute the sole research topic, or it may be one component of a wider study.

Depending on the country situation, the research may have varying degrees of focus on medical institutions and on the community. In all countries, research should cover the social context of breastfeeding in families and communities. Particularly in countries where prenatal care and institutionalized births are the norm, research and program actions should give due attention to the national Ministry of Health (MOH) and health institutions' norms and the beliefs and practices of health staff. The focus and research issues will also vary somewhat by breastfeeding patterns, including but not limited to: if most mothers initiate breastfeeding, if most mothers supplement prematurely, and if many mothers wait to long to supplement.

Chapter One:
BREASTFEEDING: BEHAVIORAL ISSUES

This chapter describes what prior studies have learned concerning the core behaviors that comprise "optimal breastfeeding," as well as broad cultural norms and social factors that influence practices, including mothers' domestic and work environments. It is hoped that this discussion will help guide an agenda for new consultative research on breastfeeding, a generic outline for which is provided at the end of the chapter. Some of the specific findings described are from the literature on breastfeeding and others are from research sponsored by EPB. Synopses of the latter studies are found in Appendix A. Some of the discussions on breastfeeding practices are followed by brief methodological notes.

Optimal Breastfeeding Behaviors

Research has shown that the following behaviors maximize the benefits of breastfeeding:

- √ **Initiation of breastfeeding within about one hour of birth**
- √ **Frequent, on-demand feeding (including night feeds)**
- √ **Exclusive breastfeeding until the infant is about six months of age**
- √ **Supplementation of breastmilk with appropriate weaning foods when the infant is about six months of age**
- √ **Continuation of breastfeeding well into the second year of life, with gradual rather than abrupt cessation of breastfeeding.**

Qualitative research on breastfeeding should investigate local knowledge, beliefs, and behaviors concerning breastfeeding, how they are acquired and shared, and the contextual factors that influence them. Planners can then understand why local practices may differ from biomedical concepts of optimal practices, and begin to piece together ideas for moving toward improved practices in public health terms. Understanding why behaviors occur will require examining the role of health workers and other influencers, social norms and cultural expectations, and other factors.

√ Initiation of breastfeeding within about one hour of birth

Breastfeeding should be initiated within about one hour of birth after normal deliveries. Early initiation is beneficial to the mother because it may help to expel the placenta, reduce postpartum hemorrhage, and contract the uterus so that it begins to return to normal. It also helps bring in the milk and establish lactation. Immediate initiation is even more important for the newborn. The first milk, colostrum, is nature's way of protecting the newborn as it leaves the sterile environment of the womb and is exposed to germs. Colostrum is rich in anti-bacterial and anti-viral agents, and it is also contains all needed nutrients. Immediate initiation helps establish early the psychological benefit of a close infant/mother bond and may also be helpful in infant warming (the lack of which is a risk factor for pneumonia).

Immediate initiation entails several sub-behaviors: (1) putting the infant to the breast to begin sucking within approximately an hour after delivery (ideally putting the baby skin to skin on the mother's chest, allowing the baby to find the breast and to breastfeed when ready); (2) giving colostrum; and, (3) giving nothing else to the child by mouth.

For a variety of reasons, these behaviors frequently are not followed. In many cultures throughout the world, mothers wait one to three days before putting the infant to the breast. Morse found that in 50 out of 120 cultures studied, the first breastfeed was delayed two or more days; in only eight of them was breastfeeding begun within 24 hours postpartum. This echos findings from an earlier study by Lozoff, who reviewed 81 studies and found that 52% reported delays of 24 hours or more before the first breastfeed.

Delayed initiation is common because of people's beliefs that the milk has not yet come in and that the "first milk" (colostrum) is bad for the child. There are beliefs throughout the world that colostrum is dirty, contains germs or pus, is poisonous, contaminated (perhaps by semen), or stale (perhaps it is leftover milk from the last child). The color and consistency of colostrum do differ from those of mature milk, thus engendering folk explanations for its distinctive characteristics. Mothers may delay because they do not consider colostrum to be real milk, although not necessarily harmful. In some parts of Ghana and other countries, there are elaborate rituals for testing the suitability of early breastmilk.

Breastfeeding may also be delayed because of the belief that the mother is too tired from labor and delivery or that the infant is too weak to suckle. In Kazakstan and many other countries, inappropriate hospital norms also keep many mothers from their newborns for several days.

In most places in the world, various substances (prelacteals) are given to the neonate during the period of delay. These include water and sugar water, teas, animal milks, canned milk, coconut milk, beer, formula, gruels, butter with sugar, and various concoctions with honey and herbs, and metals. In Cochabamba, Bolivia, urine from an older brother is administered by spoon or dropper. The purposes of these prelacteals are many:

- *Thirst*: Mothers in almost all places give babies water (sometimes boiled) because it is assumed that the baby is very thirsty after the hard work of labor and because of the hot climate.

- *Cleansing or purging the stomach*: Water is given in Swaziland for this purpose; a mixture of honey; date palms and lead in northern Nigeria; honey and ghee in Pakistan; honey or fine olive oil in Nicaragua.

- *Preventing or curing diarrhea or dehydration*: In Lesotho, Swaziland, and Pakistan, mothers feel a need to give newborns solutions similar to oral rehydration salts (ORS) as a way of preventing or curing dehydration. This probably results from mothers' interpretations of ORS promotion.

- *Ritual purpose* (to welcome or bless the child): In many of the cultures mentioned earlier, prelacteal feeding is a ritual, as it is among the Wolof in Senegal, who give newborns holy water in which paper with verses from the Koran have been dipped.

- *Child's character*: Some prelacteals are thought to give the child certain desirable characteristics or pass on the essence of the family, as in Swaziland where some mothers feed a paste made from water and soot from the family stove, or in Indonesia, where a beloved and respected person gives the honey with the hope of transferring some of his or her nature to the child.

Formative research should enable planners to learn about prelacteals and to decide which common practices can be ignored (for example, giving a few drops of boiled water) and which truly dangerous ones program activities need to address. How the prelacteals are administered is important: by dropper, spoon, cup, bottle, on a rag soaked in tea and honey (as in Honduras and Pakistan), or food chewed by an adult and spit into the newborn's mouth (as in Senegal). Some substances in and of themselves are harmful, no matter how hygienic they are, such as animal milk (which cause allergic reactions in many infants), lead or ashes, or even honey, which can cause botulism. Giving purgatives or laxatives to the neonate is clearly undesirable, since they damage the digestive system and can cause serious dehydration, threatening the infant's survival. In Haiti, for example, a castor oil purgative is the first thing given to an infant, followed by sugar water.

Some programs have been successful in changing practices regarding feeding colostrum, earlier introduction of breastfeeding, and reduction in prelacteals (for example, the Nutrition Education and Behavior Change Project in Indonesia and Baptist Medical Services in Nigeria). A common strategy is to (legitimately) ascribe to colostrum desirable characteristics that people traditionally give to prelacteals. In many places, even where colostrum is usually discarded, a minority is already feeding it, and many others may discard it because of "tradition" but are willing to abandon the practice when they hear convincingly of the many advantages of feeding colostrum. Where many births take place in facilities, modifying norms and training staff may be important for improving early initiation. However, in places such as Pakistan, northern Nigeria, and northern Cameroon, where these customs are more ingrained and pervasive, completely eliminating prelacteals may be quite difficult, so programs may decide to try to merely reduce their frequency, quantity, or harmful aspects. For example, in Pakistan it was difficult to find a family willing to abandon the ritual giving of ghutti, but many were willing to restrict its use to the ritual rather than finishing the bottle of ghutti over a longer period of two weeks.

Methodological Note. To learn about initiation of breastfeeding, observation is more reliable and accurate than merely asking mothers. This is most practical where a significant portion of mothers deliver in facilities, so researchers can observe and talk with mothers and health staff. A simple form can be developed that notes each mother's time of delivery, time of first breastfeed, and anything else that has been given and why. This is clearly preferable to asking mothers what they did many months after they gave birth.

In areas where home births are the norm, talk to traditional birth attendants (TBAs) and others who may strongly influence mothers -- especially grandmothers. TBAs are likely to have somewhat standardized practices so that researchers can gain an accurate depiction of perinatal norms. Ask about variations from the standard, who influences decisions on when the infant is put to the breast, whether and why colostrum is given, and whether, why, and how prelacteals are given. Also interview mothers who have delivered recently.

Where a significant portion of women deliver in facilities, it is quite feasible to do behavioral trials of recommended practices regarding breastfeeding initiation (see Chapter Two). The researcher may conduct an initial interview when the woman enters the facility to give birth and conduct the follow-up interview at the woman's home. In Kazakstan, however, the entire trials could be done in facilities, since maternity stays last about a week. Locating women about to deliver at home is more difficult, but may be possible with the help of TBAs or local health workers.

√ Frequent, on-demand feeding (including night feeds)

Frequent feeds are necessary, particularly during the period of exclusive breastfeeding, because the baby's small stomach limits the amount consumed at any one feed. Moreover, since milk supply is principally a function of sucking and breast emptying, frequent feeds are needed to keep up mothers' milk production. Frequent feeding will also maximize the fertility-reduction effect of breastfeeding, thus protecting the mother against becoming pregnant again too soon. For the very young infant, at least ten feeds a day are desirable.

A number of behaviors need to be looked at with regard to frequency: number of feeds and duration of each feed (breast emptying), cues to feed, feeding from both breasts, demand vs. scheduled feeding, use of supplementary feeds (including water), use of pacifiers (dummies), separation of the mother during the day because of work, how mothers carry their young children, and whether the child sleeps with the mother. Suckling will be reduced if feeds are scheduled or withdrawn at night, if anything other than breastmilk is being fed to the child (since it is substituting for breastmilk), or if pacifiers are used. Giving supplementary feeds by bottle can further reduce suckling time because the different sucking action required for extracting milk from a breast and from a bottle can cause "nipple confusion," which can lead to less efficient breastfeeding, baby's frustration, and a reduction in breastmilk production.

The degree to which mothers stay close to their infants clearly affects frequency of feeds. Researchers should note these cultural expectations related to separation, as well as the amount of separation, the circumstances, the reasons for it, and how it affects infant feeding. In many traditional societies, such as Uganda, infants are literally at their mothers' side at all times, and it is not considered acceptable for them to be separated. If mothers in such places are mobile, they probably have a traditional way of carrying babies that facilitates breastfeeding. In some places, separation under certain circumstances is considered acceptable -- at night, for example, or when the mother must do tasks outside the house. In other places, within a short time after delivery, the mother returns to work in the field, market, or office and leaves the infant in the care of others.

Mothers may use only one breast or favor one breast over the other -- because it is more convenient because of the way the baby is carried, or because of a belief that milk from one side is less clean or nutritious. This practice will lead to engorgement of the unused breast and eventual decline in milk production from the unused breast, potentially compromising the breastfed child. This practice seems more common in east Asia than in other regions.

Methodological Note. Even when demand feeding takes place, it is important to find out how the mother knows that the infant is "demanding" a feed. In most places, mothers define demand

as "when the child cries." This cue is insufficient for more passive babies, for whom a vicious cycle is set up whereby they cry little and are fed little, which makes them weaker and less likely to cry. Check whether crying is the major cue but the mother has some other way of making sure the infant is fed every two or three hours, regardless of whether or not he or she cries. In this situation, feeding frequency is likely to be adequate. Mothers may interpret crying to mean that a breastfeeding baby wants to stop feeding, but the cause may be the baby's need to burp.

Except where feeds are scheduled, mothers will probably have a difficult time reporting with accuracy how many times they breastfeed in a 24-hour period. It is helpful to ask separately about number of feeds during the day and at night. Where the mother has particular difficulty in recounting, lead her through the day by breaking it into time segments: "Between the time you awoke and the time you left for the field, how many times did you breastfeed? During the time you were in the field, how many times...?" Even this line of questioning may be difficult, since the child may be on and off the breast throughout the day for varying lengths of time, so the concept of a "feed" is not even applicable. You may have to try out several approaches to how you break up the day and what you consider a feed, when you are pre-testing your instrument. What is critical to determine is both frequency and duration of feeds.

Frequency is most reliably studied via observation, but observation is time-intensive and can be difficult to set up logistically. It is worth trying to conduct at least a small number of observations, since it is by far the best method for learning patterns, cues to feed, and contextual conditions that impede or foster breastfeeding. In Kazakstan, researchers noted that the way mothers swaddled babies in their cradles made it a chore to undo the baby if the baby was fussing. Simple forms can be devised to record time at the breast, cues, and other factors. You may need to conduct observations of women in different settings: those who spend their days working in the fields, those in the informal sector, and those working in the formal sector. Observations should also be recorded during in-depth household interviews, particularly those that last several hours spread over more than one day.

Since this is not quantitative research, absolute accuracy to the minute is not required. Your objective is to assess adequacy of frequency and intensity and to understand the factors that determine the patterns you find.

√ Exclusive breastfeeding until the infant is about six months of age

Exclusive breastfeeding for around six months is the single most important practice for yielding the multiple health benefits of breastfeeding. Yet exclusive breastfeeding for four months or longer is rare in most parts of the world, principally because people do not believe that breastmilk alone is enough for the child. Water is commonly given in the belief that it is needed to satisfy thirst, and formula and foods are given because they are thought to add something beneficial for the infant. Exclusive (or even almost exclusive) breastfeeding for around six months by the majority of mothers has been documented in only a few places, usually more traditional and poor; for example, in Rwanda, Uganda, and in parts of India, where exclusive breastfeeding is practiced for too long.

A more typical picture is shown in the following survey results from Honduras and Nicaragua.

	Infant Feeding by Age in Honduras, 1991, N = 705 AGE IN MONTHS (1 = 0-1 months, 2 = 1-2 months, etc.)						
	1	2	3	4	5	6	Total
Breastmilk only	40%	37%	25%	18%	13%	5%	23%
Some breastmilk	98%	95%	94%	94%	93%	90%	94%
Liquids	59%	61%	73%	80%	87%	94%	75%
*Other milks	22%	22%	38%	28%	38%	39%	31%
*Water	40%	40%	51%	56%	75%	83%	58%
*Teas	9%	10%	7%	7%	4%	10%	8%
*Other liquids	11%	17%	25%	16%	28%	29%	20%
Foods	4%	3%	8%	29%	43%	69%	27%

Source: Baume, Zeldin, and Rosenbaum, 1991.

National Family Health Survey, Nicaragua, 1993			
	0-3 months	**3-5 months**	**6-8 months**
Breastmilk only	13.5%	6.5%	2.5%
Breastmilk & water	9.5%	4.1%	3.0%
Breastmilk & other liquids	13.1%	8.0%	2.8%
Breastmilk & cow's milk	46.6%	29.0%	52.1%
Breastmilk & solids	4.3%	29.0%	32.8%
No breastmilk	13.0%	23.5%	32.8%

Source: Stupp et al., 1993.

When asked what the best food is for their baby for the first four to six months, or when asked whether breastmilk or formula is better, most women the world over will say that breastmilk is best. Yet what women say seems to contradict the reality that some women do not breastfeed at all and that most who do breastfeed also give supplementary foods. So lines of questioning that simply ask for breast/bottle comparisons, or that ask only what the best food for babies is, will reveal little about what mothers actually do.

Why the tremendous gap between motivation to breastfeed and motivation to breastfeed *exclusively*? In addition to various social, cultural, and economic influences, part of the explanation may be the following reasoning: Yes, breastmilk is better, but formula is considered a very close second -- almost as good and in some circumstances more convenient. Or: yes, breastmilk is best, so mothers breastfeed, but they can make breastmilk "even better" by adding something. Other foods are seen as giving baby *even more,* rather than as *replacing* breastmilk, which is what they really do.

This is why campaigns based on a "breast is best" concept will not be effective in most places, since mothers are hearing what they already believe. Mothers will simply reason: "Yes, breast

is best, so I am doing the right thing by breastfeeding, but I don't think my breastmilk alone is enough, so I'm doing even better because I'm also giving formula (or whatever)." Again, we circle back to the point that exclusive breastfeeding and its importance are not understood.

Besides women's attitude towards breastfeeding exclusively, researchers should also examine mothers' motivation to supplement a baby of a certain age or a baby who gives certain cues. How does the mother know it's time to give something else? What guides her selection of what to give? How influenced has she been by promotion of breastmilk substitutes? Most mothers look for signs from the child: crying, which is interpreted as a sign of hunger; developmental markers, such as sitting up or appearance of teeth; or perceived growth inadequacy. Mothers in many places interpret babies' episodes of diarrhea or other illness as being caused by bad breastmilk and therefore suspend or terminate breastfeeding. When babies reach around three months of age, mothers' breasts begin to soften, which mothers may interpret as a sign of diminished milk caused by their poor diet or other reasons.

Perception of insufficient milk is a major reason why mothers begin to supplement prematurely around the world. Also, ideas that milk has "gone bad" or is the cause of illness motivates many mothers to give supplementary feeds to young infants. These are such prevalent misconceptions that a separate section is devoted to them later in this chapter.

Even though mothers can express milk and leave it for the child when they must be separated, many cultures resist the idea of extracting milk from the breasts and later feeding it to an infant. Mothers may be afraid that expressed milk will spoil quickly. *(Breastmilk will keep well for at least six hours in the shade and at least 24 hours in a refrigerator.)* There may also be a concern about breastfeeding after a day's separation, for fear that the milk in the breasts has spoiled. In Uganda women responded in disbelief and sometimes horror at the idea of expressing breastmilk: "If you are found doing it people will think you are a witch." There is a related taboo against breastmilk falling on the ground, which may cause an infant to die. Similarly in Nigeria, mothers, fathers, and grandmothers were amazed at the idea of expressing milk, but found it perfectly acceptable for a close relative (including the grandmother) or friend to breastfeed a baby. In Kazakstan, however, women frequently express their breastmilk. Delayed initiation of breastfeeding and scheduled feeds make postpartum engorgement common, and instead of permitting *ad libitum* feeds, medical personnel have women express their milk.

Methodological Note. It is crucial for any formative research on breastfeeding to discover how strong resistances are to accepting exclusive breastfeeding or other important program recommendations. You can examine mothers' ideas on what would happen if the young infant were given only breastmilk. You can show a picture of a child whom mothers consider to be well-nourished, and ask mothers how the baby is probably fed. You can also probe the concept of exclusive breastfeeding by asking about a real or imaginary mother who is doing it. What do mothers think about this, is it difficult, is it good for the mother, what will happen to the child, why is she doing this, who told her, etc.? Try to interview at least a few mothers who are exclusively breastfeeding babies three- to six-months old to find out why.

In trials of improved practices, you can ask mothers about to give birth or mothers of newborns to breastfeed exclusively. Also, ask mothers who have only recently begun to supplement if they

are willing to try returning to exclusive breastfeeding or to substantially reduce the amount they are supplementing.

✓ **Supplementation of breastmilk with appropriate weaning foods when the infant is about six months of age**

Optimal breastfeeding includes the idea that when the child is around six months of age, breastmilk should be supplemented with appropriate weaning foods -- sufficiently calorie-dense and containing enough of key nutrients for the child's needs. Premature supplementation terminates exclusive breastfeeding and puts the infant at heightened risk of diarrhea, infection, malnutrition, and death. Late supplementation puts the baby at risk of malnutrition, growth faltering, and deficiencies of specific nutrients.

A major problem in child feeding is initiation of foods and drinks besides breastmilk (the beginning of the weaning process) too early or too late. Moreover, problems with the appropriateness of semi-solid and solid weaning foods abound, particularly giving thin gruels that are inadequate in calories and vital nutrients. Also widespread are problems of inadequate hygiene in the preparation, administration, or storage of weaning foods. In most countries, liquids are given far too early and weaning foods are given too late. Although premature supplementation is by far more common, late supplementation is also common in India, Bangladesh, and in parts of Africa. These problems and conducting formative research on them are covered thoroughly in *Designing by Dialogue*.

Methodological Note. Because water, liquids, and foods each serve different purposes in mothers' minds and are typically introduced to the infant at different times, it is important for research to look at them separately. For example, feeding problems, solutions, and messages would be very different if: (1) mothers give water from birth, begin other liquids at five months, and foods at ten months; or, (2) mothers give water from birth, begin other liquids in the first month, and foods at six months. If all types of supplementary feeds are lumped together, one would describe both of these situations in identical fashion by simply saying there is no exclusive breastfeeding, since supplementation begins at birth. If one did not look at water (and many studies do not) and did not look at liquids and foods separately, one would say that the first was an ideal feeding pattern -- that supplementation begins at five months, near the recommended age -- when in fact there is a serious infant feeding problem.

Research on exclusive breastfeeding must determine if the following are given and when and why the mother started giving them: water, other liquids (milks, teas, juice), foods (semi-solids such as paps and porridge), and medicinal concoctions (such as *agbo* in southwestern Nigeria and *kwalli* in northeastern Nigeria).

It is best to confine your sample to mothers of babies under six or nine months, since they will have a better recall than mothers of older children. First ask what the child is being fed, and note which of the above categories the mother mentions spontaneously. Follow with "Anything else?" Then probe for the categories not mentioned, especially water. In many settings, water is not considered something that is fed and may not be mentioned even if it is routinely given. For each of the categories, ask when the mother started giving it. Pre-test your terms and concepts carefully. People may also have different definitions of "food."

For in-depth household interviews, you may want to record responses in a standardized format, as this is the basic information that will form the description of feeding patterns. Be sure to probe to see if and why certain foods, drinks (including water separately), and medicinal concoctions (prelacteal or others) were started, stopped, resumed, or dropped from the infant's diet. Although you will not be reporting statistics, you will be able to retrieve feeding information easily to report trends accurately. A further advantage of using a systematic reporting format for basic feeding patterns is that you will want to follow up on these questions to gain a more in-depth understanding of why the mother is or is not feeding certain things, why she began when she did, how she knew it was time to start, etc. Having the information up front in an easily readable and standardized format permits easy reference to it for follow-up probes.

√ Continuation of breastfeeding into the second year of life or beyond, with gradual rather than abrupt cessation of breastfeeding

Although the nutritional, immunological, birth spacing, and other benefits of breastfeeding gradually decrease after the baby reaches around six months, they continue to be very important to a young child's health and survival. It is therefore recommended that breastfeeding continue well into the second year of life or beyond.

Three important issues concerning termination of breastfeeding are: the child's age when it ceases to breastfeed, reasons for termination, and gradual versus abrupt termination. The following are some of the reasons women give for stopping breastfeeding.

- *"It's time"*: By this, the mother usually means that the child has reached the normal age -- culturally defined -- when it no longer needs breastmilk or needs to "learn" to eat other foods (as in Honduras). If termination is at less than a year, it is especially important to investigate cues. Is it something the child is doing (reaching for food, crying for food, biting the mother's breast)? Is it something related to childhood growth markers (teething, beginning to walk or talk)?

- *Child weaning itself/lost interest*: At a certain point, of course, a child will wean himself/herself. Especially for a child less than two years old, you will want to find out the signs of "lost interest," i.e. how did the mother know the child no longer wanted to nurse. You should also look for practices that would foster self-weaning: premature supplementation, use of bottles or pacifiers, infrequent feeds.

- *Mother has "insufficient milk"*: Insufficient milk is frequently cited in almost all cultures, industrialized as well as traditional. This is discussed below.

- *Mother has breast problems*: Problems, such as mastitis or cracked nipples, can lead a mother to abandon breastfeeding. Different cultures have very different ways of perceiving and treating the same problem.

- *Child becomes ill*: Sometimes breastfeeding is stopped when a child becomes ill because the breastmilk is thought to cause the illness or to make it worse. Health professionals may even encourage this. Usually the withdrawal of the breast is temporary, but in some cases it may be permanent.

- *Mother becomes ill*: Mothers may cease breastfeeding when they contract certain illnesses, either in the belief that the illness can be passed on to the infant or that breastfeeding will further weaken their own condition. In Pakistan, laboratories sometimes will "test" the breastmilk of sick mothers to see if they should continue to feed or not.

- *Mother resumes sexual relations or becomes pregnant*: In many countries, women terminate breastfeeding when they resume sexual relations or they learn they are pregnant again. Sometimes it is thought that the milk will be contaminated by the husband's sperm or that it must now be saved for the fetus. Where the belief exists that breastfeeding should cease when the mother becomes newly pregnant, some women stop as soon as they believe they are pregnant, while others wait until the pregnancy is visible to others.

- *Breastfeeding drains the mother*: Fear of breastfeeding has been documented in Senegal, where some mothers stop breastfeeding early because of their belief that it is draining them and making them thin -- an undesirable characteristic in this country. In Honduras mothers complain that lactation debilitates them by "weakening" the blood. When a mother is told she is anemic or has low blood pressure or "bad" blood, she immediately begins weaning her child, regardless of its age. (In Pakistan and many Latin American countries, the folk belief is that breastmilk is a form of blood. This may have various ramifications for practice. In Nicaragua, mothers believe that their poor diet means they have weak blood and hence weak breastmilk and therefore must supplement.)

- *Breastfeeding too long is bad for the child*: Definitions of "too long" vary, as well as the expected results, but it is often felt to make the baby selfish or a "mama's boy." In Honduras, "Criticisms of prolonged breastfeeding in the city can be harsh, especially when the infant is male. It is sometimes implied that a mother is trying to sexually entice her son or tie him to her apron strings...boys who nurse for longer than six to eight months will bleed (usually through the nose) upon reaching puberty due to inordinate consumption of female blood during infancy" (O'Gara).

- *Mother returns to work*: Women employed in the formal sector often cease breastfeeding when they resume their jobs. (Although breastfeeding is more difficult under these circumstances, it need not be terminated. A mother can feed just before and right after work, leave expressed milk for the infant, have someone bring the infant to her place of work, or where possible, have the infant at or near her work. Research can explore the feasibility and acceptability of these options.)

Cessation of breastfeeding should be a gradual rather than an abrupt process. Especially for younger children, abrupt weaning can create a nutritional and emotional shock. In some societies, a mother decides one day that the child must stop nursing, so she puts bitter substances on her breasts, hides her breasts, or sends the child away for a period of time.

Methodological Note. Existing quantitative studies probably include statistics on breastfeeding duration. Where duration is sufficiently long, it is probably not worth spending a lot of time on reasons for termination. Do try to gauge whether exceptions to long duration are rare or common. In the latter case, it is very important to understand the reasons so that they can be addressed. Be careful about accepting at face value a stated reason for termination. Some mothers, especially

those in Western societies, just do not want to continue breastfeeding because of its perceived inconvenience. A mother is entitled to stop when she wishes but, when she has stopped early, she may give a socially acceptable reason instead of feeling comfortable about saying that she herself did not want to breastfeed any longer.

Cultural Context for Breastfeeding

Cultural expectations are powerful determinants of breastfeeding patterns. In such countries as Rwanda, Mali, and Nigeria, breastfeeding is not a decision that women make, but is embedded in cultural norms and assumed. It is part of being a woman, a mother, a provider, and a sustainer of children. In Rwanda, a greeting to a newly delivered mother is "Congratulations, and may you breastfeed well." Among an ethnic group in northern Tunisia, "...the flowing of a mother's milk and her baby's evident thriving on it is a sign of *baraka*, a life sustaining force. When a mother transmits this force, it is not only the nursling who prospers, but also everybody and everything pertaining to the house" (Creyghton). Or in the words of a no-nonsense grandmother in Jigawa State, Nigeria: "You see this breast, God did not give it to us as a decoration. So if any woman decides to give her child infant formula, I think she is mad!"

Despite a very positive image of breastfeeding and high cultural acceptance in most countries, *exclusive* breastfeeding for at least four months is rarely the norm because of another cultural norm -- supplementation. The pattern typical in many countries is that most women initiate breastfeeding but then begin supplementation very early, suspend breastfeeding for solvable problems (e.g., perceived insufficient milk or baby's illness), and terminate it if they become sick or pregnant. Women in many cultures basically lack confidence in their ability to breastfeed in the face of many common obstacles or to breastfeed without adding supplements in the first months, as illustrated in the examples below.

- Low-income mothers in Cairo perceive breastfeeding to require patience, time, and a sense of responsibility. Thus, very young mothers are sometimes not expected to be able to breastfeed because they lack the maturity and experience.

- Nicaraguan mothers normally breastfeed for six months or longer but begin supplementation right after childbirth because they feel that their own poor diets make it impossible for their breastmilk alone to be enough for the baby.

- Richer, more "modern" women in developing countries are more likely than their rural counterparts to view breastfeeding negatively. In Cairo such women considered breastfeeding to be "primitive,"animalistic," and "shameful," particularly in front of men (Hoodfar). (This contrasts with the situation in the West, where more educated women are most likely to breastfeed.)

- Many minority low-income mothers in the U.S. claimed that they had never seen a woman breastfeeding and thought it would look "gross." They consider breasts to be sexual objects that "belong to" a husband or boyfriend, not an infant. "They are not for baby to suck on. It's perverted when you let a child suck your breast" (Bryant).

Methodological Note. Program planners needs to explore broader concepts of world view and social context that may help make sense of many disparate findings. Some of these broader explanatory variables are the following:

- *Ethnophysiology*: According to traditional beliefs, what is happening to a woman's body during pregnancy and breastfeeding? How is breastmilk produced by the body? Answering such questions may explain a relationship between blood and breastmilk, as well as a symbolic meaning of breastmilk and breastfeeding.

- *Images of breastfeeding*: Do women and others consider breastfeeding to be a primitive or modern behavior, beautiful and natural, or ugly and unpleasant? Is breastfeeding normal for urban and educated mothers or for rural and uneducated ones?

- *Fatalism*: Are there attitudes of fatalism that lead to neglect or abandonment of certain children?

- *Women's self-confidence and independence* to make decisions: How do women and society perceive women's ability to make decisions concerning diet, nutrition, seeking health care, etc.? To what extent are women, particularly young women, considered inexperienced and obedient to others' wishes?

- *Cultural expectations for postpartum women*: What is expected of them regarding work, rest, diet, rituals, care of the infant?

- *The culture of supplementation*. In Latin America particularly, there appears to be a culture of breastfeeding co-existing with a culture favorable to supplementation. It is important to explore both traditional supplementation and the commercial, medical, and other supports for modern supplementation.

It is also extremely important to understand if and how actual practices differ from local perceptions of ideal feeding practices. If formative research describes what mothers do, but fails to adequately define what they would do if conditions enabled them, it is not clear to what extent mothers are doing what they want to do and to what extent they would modify their practices if not for constraining circumstances such as the lack of money to buy powdered milk.

One formative study reported that "mothers introduced other milks by the first month of life because: they felt their breastmilk was not sufficient and the child cried for food..." The statement does not tell us enough, since we do not know whether this means some mothers introduced milks because they felt the quality or quantity of their own milk to be insufficient, or whether it was because mothers believe that breastmilk alone will not nourish and satisfy an infant, even if they themselves have plenty of milk. The converse would be a finding that the mother is giving only breastmilk. But is this because she believes this is the best way to feed her child, or is she doing this because she cannot afford formula which she thinks would really make her baby healthy?

The distinction is important because the program implications are so different. If mothers' concept of ideal is far from the optimal practice (as defined by current biomedical beliefs), then

issues of knowledge and motivation must be addressed. If mothers want to breastfeed exclusively but are encountering obstacles, then the specific problems and obstacles they identify must be overcome. If mothers' practices are good, but mothers do not have confidence in them, then encouragement and reinforcement are needed.

Another example of the problem of not taking perceived ideal feeding practices into account is seen in a study of the impact of social support, which hypothesized that improved social support would lead to increased exclusive breastfeeding, as other studies have shown. However, the researchers failed to take into account what mothers considered ideal -- whether they were even striving to breastfeed exclusively. Other studies had shown that mothers in this culture do not believe that an infant can be well nourished on breastmilk alone. It was therefore likely that no amount of help with cooking, going to the market, washing clothes, or other forms of social support would make mothers suddenly begin to decide to cease giving supplementary feeds. It will only enable them to move closer to their social norm, which is to supplement. Thus, although the study could make conclusions about social support, it could not give new insights into how to move mothers closer to optimal breastfeeding practices.

In formative research, one way to determine notions of ideal feeding is to find out what typical liquids and foods are given to infants and to ask: "What is the best age to begin giving (milks, porridge, etc.)?" This may not work well in areas where mothers are not time- and calendar-oriented. If she says "five months," does she really have a five-month old in mind? One way to find out concepts of ideal feeding in low-literate populations is to use photographs of well-nourished and poorly nourished infants, and ask the mothers to tell you what each is being fed. The photos should be of local children around four months of age. First ask the mother how old she thinks the child is and how the child's health is, to be sure that she thinks the child is healthy and is around four months of age. Then ask, "What is this child being fed?" Follow the same procedure for the malnourished child. As a validation, you can also have photos of a well-off mother and a poor mother, and ask what each is feeding her child of a certain age.

Other Key Concepts and Behaviors

Insufficient Milk

The etiology of insufficient milk can be biological or sociological/psychological, and most often involves an interaction between the two. In fact, very few women are biologically incapable of producing enough milk to exclusively breastfeed their infants for around six months. Even in conditions of hardship, where maternal diets are marginal and work demands high, milk quantity and quality remain satisfactory. It is only under conditions of extreme deprivation that lactation capability becomes compromised and mothers' own nutritional stores begin to become depleted.

One of the most basic principles of breastfeeding is that the more the baby suckles, the more milk the mother produces. If a breastfeeding mother begins to give supplementary liquids or foods, stops night feeds, is separated from the infant for more than three to four hours at a time, or routinely gives the infant a pacifier or any liquid in a bottle, then mother's milk supply will begin to diminish, since demand has been diminished and the stimulus of sucking to milk production is diminished. Thus behavioral factors induce biological changes. In other situations, anxiety or

insecurity can lead mothers to interpret normal biological changes that take place in their breasts or interpret normal behavior by the infant as indicative of insufficient milk.

In many countries, insufficient milk is the most commonly cited reason for beginning to give the infant supplementary feeds or for terminating breastfeeding. Few cultures make the express link between frequency of suckling and volume of milk, or if the link is made, the concept is not applied. When a mother perceives her own milk supply to be dwindling, the most common response is to decrease suckling to save milk, but the consequence is reduced milk production. Health professionals themselves may encourage potentially harmful beliefs and practices.

Many cultures assume that larger breasts produce larger quantities of milk than small breasts, but in Senegal it is thought that small breasts produce the best and most milk. Scientific evidence does not support such beliefs.

As might be expected, the prevalence of perceptions of insufficient milk are more widespread in some cultures than in others. In some societies normative feeding practices, particularly premature supplementation, lead to a decrease in milk production. In societies undergoing transition and stress, claims of milk insufficiency rise.

Perceptions of Milk Quality

The quality of maternal milk is remarkably resilient under a variety of conditions -- inadequate diet, stress, illness. Studies indicate that milk in the mother never spoils, and expressed milk remains safe to drink for at least six hours without refrigeration and at least 24 hours with refrigeration.

In most cultures, mothers are concerned about the quality of their breastmilk, in part because of the common belief that there is a direct, immediate link between maternal physical or emotional status and quality of milk. In many cultures, it is believed that breastmilk, like other milks, can turn sour or bad, either in the breast or if expressed.

Many cultures proscribe sexual relations for a woman who is lactating, believing that the sperm enters the milk and causes illness in the child. There are a number of reports of beliefs that physical exertion adversely affects milk, e.g. from Tunisia, Honduras, Indonesia, and Swaziland.

Mothers' psychological status is commonly believed to affect their milk quality and/or quantity. Mothers in Rwanda speak often of *securité morale*, or emotional well-being, which is easily disturbed by marital discord, often stemming from her husband's polygamy or consumption of alcohol. Mothers in Cairo believe that grief causes "grief milk," which can cause diarrhea in the nursling. Among many different types of breastmilk that traditional Bolivian mothers recognize is "angry" milk produced by a mother who is upset. This milk is not considered good for the baby. Similarly in Haiti, mothers who quarrel or become upset are believed to produce spoiled milk.

In Kazakstan, mothers worry about the consistency and color of their milk and make judgments whether it is "too thin" or "too fat." A mother who perceives her milk to be too thin will give the young infant additional liquids or foods to assure adequate nutrition; a mother who believes

her milk to be too fatty is likely to worry about her infant becoming constipated. One mother was advised by health personnel to give her newborn an enema because, she reported, her fatty milk was causing the infant to be constipated.

In many cultures, even in those that do not believe in spoiled milk, it is believed that some women produce good milk and others do not. In Bolivia, there are "strong" and "weak" mothers whose constitution naturally affects their milk. In Mali, "the quality of a woman's milk is considered something intrinsic, not readily subject to change or alteration. If a woman decides she has 'bad' milk, she may seek medicine to make it better, wean the baby, or add formula or solids to the baby's diet" (Dettwyler).

Breastfeeding Techniques

Improper breastfeeding techniques can lead to discomfort and early termination of breastfeeding. Techniques include breast preparation, positioning, and whether one or both breasts are used. Correct positioning aids in preventing cracked and sore nipples. The baby should be positioned so that most of the areola (rather than just the nipple) is in the baby's mouth. Current medical advice is that no special preparation of the breasts is needed, either during pregnancy or before beginning a feed. Breast washing, particularly with soap, is not necessary and can lead to sore or cracked nipples.

Problems of positioning are probably more frequently found in cultures not supportive of breastfeeding, where breastfeeding must be taught.

Some MOHs recommend breast exercises and other breastfeeding preparation that are probably unnecessary and may be harmful. Infant feeding recommendations from Moscow prescribe thorough washing of breasts, chest, and upper arms, and application of antiseptic prior to each breastfeed. In Kazakstan, which is only beginning to reassess Moscow guidelines, problems of cracked and sore nipples are very common. Current health education materials in Nigeria recommend that women wash their breasts with soap and water before breastfeeding, a recommendation that may have emanated from health workers' strong concern that many women carry dirty money in their brassiers.

In many Asian countries and parts of Africa, women feed predominantly from the right breast because of a belief that "anything taken from the right is good" (e.g., in northern Nigeria), or that one breast contains water or thin milk (e.g. in Java).

In Nigeria and other countries, mothers "force feed" thin gruels and other breastmilk supplements. This may be a very ingrained practice but should be discouraged both because of the likely low-calorie density of what is being fed and because the baby might choke.

Use of Non-Human Milks, Bottles and Pacifiers

Modern technology and marketing have created and popularized formula and bottles, which have been so readily accepted by Western women, and therefore associated with sophistication and modernity. Among poor families in developing country settings, the effects of bottle feeding are devastating. Few families can afford to keep up formula feeding once it is started, resulting in

over-dilution, which contributes to a calorie deficiency. At the same time, the mother's milk production decreases. The lack of sufficient sanitary environment for mixing and administering means that bottles become conduits for bacteria.

Even where few mothers can afford to purchase infant formula, it is important to investigate use of feeding bottles, since mothers may use baby bottles to feed water, sugar water, or thin pap, a practice that can lead to diarrhea and illness.

Where formula has made inroads, researchers need to investigate the extent of use of formula and other fluids and bottles as well as how they are used: how are they mixed, what utensils are used, how are they cleaned. In addition, it is important to investigate *why* they are used: the images of bottles and formula, how they affect the baby's health and growth, what type of people use them, what they offer that breastmilk does not, what are the cues that an infant "needs" formula.

Infants fed animal milk may become fatter earlier than those who are breastfed, and in many cultures fat babies are valued. Frequently, formulas or other forms of milk are thought to serve differing growth and nutrition purposes. For example, in Honduras "Mothers do not think of choosing between breastmilk and a powder; the two are viewed as distinct foods with distinct properties, effects, advantages, and disadvantages....The breastfed infant is thought to be more active and less chubby than the bottlefed baby, and although a baby's good health is greatly valued, the cultural ideal is a chubby, undemanding baby" (O'Gara and Kendall). In Pakistan the healthiest children are thought to be those who consume both breastmilk (for inner strength) and bottle milk (for outer plumpness). In both Yoruba and Hausa areas of Nigeria, however, breastfed babies are thought to be active and robust (ideal qualities), while babies fed on formula are thought to act like animals (an idea people claim they heard from health workers).

In places where breastfeeding is thought to drain the mother or ruin her figure, bottles provide a convenient alternative. The study of breastfeeding in Pakistan found that mothers who bottle feed are thought to be beautiful and fresh and that breastfeeding is believed to make the mother thin and malnourished. Concern over sagging breasts (called "slippers" in Nigeria) is more prevalent in Western societies or those that emphasize the sexual value of the breast. In contrast to most cultures, the rural Pedi in South Africa consider droopy breasts to be desirable.

Other sociological factors that might affect the decision to give non-human milk should also be explored. Certainly bottles afford a measure of independence from the infant, which can be necessary for women who work outside the home. Although expressed milk can be left for the child, unless the mother is convinced of the superiority of breastmilk and is willing to expend the effort, using purchased substitutes (if affordable) will be seen as the preferable solution. As noted earlier, expressing milk is taboo in some cultures.

Breastfeeding and Fertility

Lactational amenorrhea is a major health benefit of full or exclusive breastfeeding and a major contributor to lengthening inter-pregnancy intervals in many countries. A consensus supported by the World Health Organization (WHO) states that the lactational amenorrhea method (LAM) of family planning -- which requires that a women be fully or exclusively breastfeeding, within the

first six months of delivery, and amenorrheic -- is over 95% effective in preventing contraception.

Persons planning efforts to promote improved breastfeeding practices should learn from mothers and influencers the degree to which the contraceptive effects of breastfeeding can serve as a motivation to women moving closer to exclusive breastfeeding for six months. Persons focusing on birth spacing or family planning need to gauge mothers' and influencers' understanding and ability to meet the LAM criteria -- for example, whether people are calendar- and time-literate, the degree to which women are already fully or exclusively breastfeeding, and the major reasons why more are not, women's attitudes towards amenorrhea, etc. Appendix C contains a generic set of research questions concerning LAM.

Planners also need to examine MOH norms concerning breastfeeding and use of contraceptives, since in some countries breastfeeding women are not permitted to start a contraceptive until they stop breastfeeding. In this situation, some women may stop breastfeeding early so they can start using contraception, and others become pregnant during weaning, which often triggers abrupt cessation of breastfeeding. Where such norms exist, programs should strive to have them changed, so that safe contraceptive methods are available to more breastfeeding women.

Other aspects of breastfeeding and fertility -- particularly taboos against sexual intercourse while the woman is breastfeeding and cessation of breastfeeding because of a new pregnancy -- are discussed elsewhere in this chapter.

Mothers' Diet and Rest during Pregnancy and Lactation

All but the most malnourished mothers can breastfeed successfully, and as long as they have sufficient time between pregnancies, mothers can usually recover from dietary stress caused by lactation. Nonetheless, it is important that formative research on breastfeeding cover maternal nutrition during pregnancy and lactation, first because of the many direct and indirect effects of maternal nutrition on maternal and newborn health, and second, because often mothers themselves are quite concerned with their diets during lactation, believing that a poor diet greatly affects their ability to breastfeed.

In some cultures, pregnant women gain minimal if any weight (because of fear of having a large baby, difficult delivery, and/or lack of food for the family and detrimental intra-family food distribution). The main public health concern is low birth weight newborns with all the associated risks. There is also concern with micronutrients during pregnancy (iron, iodine, vitamin A), a significant shortage of which can directly affect mothers' or babies' health.

Different foods may traditionally be thought to favor or hinder success in pregnancy or lactation, or be thought to pass on particular attributes to the child. Program planner need to learn what these foods are and why they are favored or avoided. How much is consumed? Do most people share these practices or only a minority? Who provides special foods? In many places, men purchase formula in the belief that they are contributing to their infant's welfare. It may be possible to promote more beneficial foods for mothers and weaning-age babies and link them to a man's responsibility.

In many places it is believed that beer aids lactation. In Rwanda, lactating mothers drink beer to increase milk production and dull postnatal pains; they avoid drinking water in the belief that it dilutes their breastmilk. This belief, plus the hot climate, may result in milk production being compromised by some level of dehydration, unless fluids are obtained by some other means.

In most societies, newly delivered mothers are afforded a period of special treatment. This usually involves some respite from work and possibly special foods and treatments. In many cultures, once the baby is born, especially during the first 40 days, mothers are given many extra and special foods so they can breastfeed well. In some societies, men may assist in providing special foods during the immediate postpartum period.

What are beliefs about women's need for rest in late pregnancy and after delivery? Often rest is culturally prescribed but not actually taken for more than a day or two, given continued need for family care. Some cultures do not value postpartum rest, as in India, where doing such work as grinding grain is believed to strengthen a woman and make it easier for her to expel the blood from childbirth. In other cases, women do get a period of rest, sometimes in a special room or in her mother's house. In these situations, the mother has a better chance to recuperate and to feed as frequently as the neonate requires.

Social Support

Formative research must investigate the role of social support for breastfeeding. Such support usually takes the form of acknowledgement by family and friends of the importance of breastfeeding and actions that enable the mother to do it. Social support may be most important where women see breastfeeding as a choice that competes with other acceptable alternatives, or in cases such as Brazil a decade ago, where breastfeeding mothers felt alone and "stressed." In these situations, support enables a woman to carry out a choice that is viewed as the "right" one, but more difficult than the alternatives.

In more traditional societies where breastfeeding is the assumed feeding mode, mothers also need different types of social support. Mothers' behavior is culturally sanctioned and accepted, and they encounter little in the way of limitations on the time and place that breastfeeding can occur (in northern Nigeria, however, mothers are expected to stay at home to breastfeed, trying to avoid doing so in public). However, even in favorable environments for breastfeeding, women must often take it on in addition to already heavy work responsibilities, combined with poor diets and inadequate rest. They would certainly benefit from community acknowledgement of their situation and more direct forms of support.

Roles of Family Members

Various aspects of men's behavior affects the community environment for breastfeeding. In a number of countries, mothers say that if a husband drinks, is violent, or otherwise causes stress, his behavior interferes with a woman's ability to produce milk. A biological explanation may, in fact, exist, since stress can interfere with the let-down reflex. Among the Xhosa people in South Africa, there is a prohibition against sexual intercourse for women who are lactating. But many men are migrant laborers who demand sexual relations when they return home. So one solution is to stop breastfeeding and bottle feed the baby. Some Hausa fathers are so concerned

about the possibility of their wives breastfeeding in public that they say they would prefer that bottles be used to avoid this.

In many cultures, although men may actually *do* few of the tasks required for feeding and care of young children, men do feel a strong *responsibility* for and *pride* (or shame) in their children's health and well-being. (In Indonesia and elsewhere, men consider themselves responsible for their children's "moral" upbringing.) Research can explore men's roles and values to find motivations for men to support their wives and also opportunities to expand on men's traditional roles and responsibilities.

Investigations can explore opportunities to reinforce or build on customs likely to benefit child health. Are there specific culturally acceptable things a father can do to support mothers' rest time? Can manhood be associated with following this tradition? Where men give priority to the welfare of their children over that of their spouses, this appeal for assistance can be made on behalf of the children. It is also important to find out what knowledge men have and what else they need to know. What is their level of interest in learning? What opportunities exist for giving men basic information about infant feeding, especially to know about the importance of exclusive breastfeeding?

In many cultures, babies' grandmothers may have a very great influence over mothers' breastfeeding and child feeding practices, actually taking over feeding responsibilities if the mother is separated from the baby because of work outside the home. Clearly, formative research must explore the extent and nature of older women's influence.

Where TBAs attend many deliveries and/or assist with immediate postpartum care, their influence must also be assessed. In general, TBAs are influential concerning initiation of breastfeeding, feeding of prelacteals or colostrum, and postpartum rituals, but are not concerned with child feeding after the first few days. TBAs often hold and advocate traditional beliefs and practices different from those felt to be best for the newborn from the Western, scientific point of view.

The Role of Health Professionals and Health Institutions

Although the role and influence of health professionals varies considerably in different countries, their views and practices should always be included in formative research on breastfeeding, particularly where a substantial portion visit health professionals for prenatal, delivery, or postpartum care. Unless they have been trained on breastfeeding, health professionals' technical knowledge of breastfeeding and knowledge of women's views and experiences regarding breastfeeding are likely to be quite limited. The description of the doctors' role in Brazil (from Mattai) is typical:

> "Though he is aware that breastmilk is best, he provides confusing or no advice to the mother, and acquiesces too easily in prescribing substitutes -- a result of faulty academic preparation, intensive formula promotion by industry, and the absence of any advocacy in favour of breastfeeding. He has tremendous influence on the mother, the family/community, the health system, official groups, hospitals, and industry."

In Rwanda, where traditional breastfeeding beliefs and practices are close to ideal, it is health providers who are undermining these practices by introducing ideas of insufficient milk and recommendations to give artificial milk. The national study in Pakistan likewise found that doctors had a tremendous negative influence on women's following optimal breastfeeding practices. Guided by the findings of formative research, most program strategies should include training and communication activities for health professionals.

Particularly in countries where many births occur in institutions, the norms and practices related to initiating breastfeeding must be included in the research. To what extent do health institutions follow WHO/United Nations Children's Fund's (UNICEF) *Ten Steps to Successful Breastfeeding* in maternities (have a written breastfeeding policy, train all health care staff in necessary skills, inform all pregnant women, initiate breastfeeding within a half hour, show mothers how to breastfeed, give newborns no other food or drink, practice rooming-in, encourage breastfeeding on demand, give no artificial teats or pacifiers, and refer mothers to breastfeeding support groups)? Norms in Kazakstan contradicted most of these principles.

Checklist of Topics for Formative Research on Breastfeeding

The following box can serve as a checklist on topics that should at least be considered for inclusion in formative, consultative research on breastfeeding.

Checklist of Basic Topics for Consultative Research on Breastfeeding

I. Optimal Breastfeeding Behaviors
- A. Initiation within one hour of birth
  1. Timing of putting the baby to the breast to begin feeding
  2. Feeding colostrum
  3. Use of prelacteal feeds and rationale
- B. Frequent, on-demand feeding (including night feeds)
  1. Number and duration of feeds
  2. Cues to initiate feeding
  3. Feeding from both breasts
  4. On-demand vs. scheduled feeding
  5. Use of and reasons for supplementary feeds (including water)
  6. Use of pacifiers (dummies)
  7. Separation of the mother during the day because of work
  8. How mothers carry babies
  9. Whether the baby sleeps with the mother
- C. Exclusive breastfeeding for about six months
  1. Women's beliefs on sufficiency of their breastmilk
  2. Milk quality, including effects of mothers' diet, mother or child illness
  3. Supplementation of other foods and drinks (timing, reasons, and manner)
  4. Formula and bottles
- D. Supplementation of breastmilk with appropriate weaning foods at about six months
  1. Calories and nutrients of weaning foods
  2. Frequency of feeding/sequencing with breastfeeding
  3. Food preparation, manner of feeding, food storage and food hygiene
- E. Continuation of breastfeeding
  1. Age at termination of breastfeeding, current and previous generation
  2. Reasons for termination, including breastfeeding problems, return to work (expressing breastmilk), new pregnancy, cultural expectations
  3. Gradual vs. abrupt termination

II. Social Norms for Breastfeeding
- A. Local ideal breastfeeding practices
- B. Knowledge of optimal breastfeeding practices from a public health viewpoint
- C. Desire to follow optimal breastfeeding practices
- D. Skills to follow optimal breastfeeding practices

III. Cultural Context of Breastfeeding
- A. Cultural value of breastfeeding/of exclusive breastfeeding
- B. Ethnophysiology of breastfeeding and breastmilk
- C. Images
  - 1. Of breastfeeding and women who breastfeed
  - 2. Of babies who are breastfed and bottle fed
- D. Fatalism/control
- E. Women's self-confidence and independence
- F. Cultural expectations for postpartum women
- G. Men's and women's roles in work and child care
- H. Acceptability of breastfeeding in public

IV. Key Concepts and Behaviors Meriting Special Probing
- A. Perceptions of insufficient milk
- B. Perceptions of milk quality
- C. Breastfeeding techniques (preparation, positioning)
- D. Use of bottles and pacifiers
- F. Breastfeeding and fertility
- F. Mothers' diet during pregnancy and lactation
  - 1. Quantity
  - 2. Quality
- G. Role and of men and grandmothers
- H. Role of TBAs and others in community
- J. Role of health professionals and health institutions

V. Current and Potential Communication Channels
- A. Contact with and attitudes toward traditional and modern health providers (when, how often, perceived treatment and benefits)
- B. Literacy and reading
- C. Community organizations, attendance of markets and places of worship
- D. Opinion leaders, credible information sources
- E. Access to, use of, and attitudes towards radio and television
- F. Oral communication traditions
- G. Pictorial literacy

This completes the review of behavioral and cultural issues concerning breastfeeding. The following chapter discusses in more detail methodological considerations for planning and conducting formative, consultative research on breastfeeding.

Chapter Two:
CONDUCTING FORMATIVE RESEARCH ON BREASTFEEDING

There is no universal step-by-step formula to recommend for conducting formative research on breastfeeding, as can be seen by the varied methods, sequencing, and sample sizes described in Appendices A and B. There are several reasons:

(1) Program or project situations differ substantially -- the scope and complexity of the program catchment area, what agency is implementing the program, whether the program focuses only on breastfeeding or also on other health interventions, and the varying nature of breastfeeding issues (delayed initiation and discarding of colostrum, to early supplementation, to delayed supplementation).

(2) Consultative research is an iterative learning process, so adjustments in methods should be made as researchers gain more insights. Throughout the formative research process, the research team must make informed decisions about what issues and concepts are important to explore, what methods to use and in what sequence, definitions of population segments, sample size, etc. A particularly important factor is how much is already known about breastfeeding issues from a review of previous studies and literature and from interviews with a few experts.

(3) Practical considerations also influence decisions on design and methodology: availability of time, size of budget, and availability of experienced research personnel (who speak appropriate languages).

While each research effort will follow its own path, the *general* phases and steps recommended are the following.

- *REVIEW OF EXISTING INFORMATION*: The purposes are: (1) to identify what is known about breastfeeding perceptions and practices, including women's body concepts and reasons for them; (2) to identify key areas and specific target groups for further in-depth investigation; and, (3) to provide a basis of comparison with the information collected during field activities. The product is a background document that summarizes existing information and points out gaps in information on breastfeeding practices. This step enables the research director to decide both *how much* new research is needed and the *agenda* for that research. The topics and issues raised in the preceding chapter should provide general guidance.

- *EXPLORATORY RESEARCH:* In-depth interviews and observations can be used to expand information on current breastfeeding practices and obstacles to moving closer to "optimal" practices; and to formulate specific recommendations that can be presented to mothers for their reactions and suggestions in the next phase. Particularly where a great deal of important information is already available, focus group discussions (FGDs) may also be used at this point. The products are a summary report on field activity findings, including an assessment of the benefit, neutrality, or harm of current practices; recommendations for changes in breastfeeding practices; a list of possible resistances to behavior change recommendations; suggestions of the most appropriate channels to provide

information to various target audiences; and a list of possible appeals to motivate specific target groups to accept recommendations.

- *TRIALS OF IMPROVED PRACTICES (TIPS)*: The purposes of these behavioral trials are to determine which beneficial changes in practices are most feasible; to learn more about major barriers (resistances) to the adoption of these new practices; and to suggest possible modifications in recommendations that would make the changes more acceptable and suggest strategies for adoption. A summary report should present the results of the field work by target group and list the most feasible changes in behavior to promote.

- *CHECKING RESEARCH*: The purpose is to test the concepts and behaviors perceived positively and implemented most successfully during trials with mothers and also with individuals who currently provide advice on breastfeeding (those likely to use the educational materials and messages generated from this research). One outcome is a compilation of profiles for each age segment of the target population that identifies the level of comprehension of each improved practice, acceptance of the practice, and the conditions under which it could be adopted; resistances to adopting the new behavior; and motivational factors associated with suggested behaviors.

- *ANALYSIS AND SYNTHESIS*: The purpose is to synthesize all the results from the research activities and determine their significance for strategy formulation, especially for communications activities. For the use of the individuals who will develop the creative strategy and materials for promoting improved breastfeeding practices, the summary report should describe the research process and present the main practices needing change, motivations, and resistances for each age segment and suggest potential media and authority figures.

- *FORMULATING A PROJECT STRATEGY*: This is a comprehensive strategy that includes all major components of a behavior change strategy, including communications. All major implementing organizations should participate in its formulation.

Following is a more thorough description of considerations for the research methodology. These same methods are described in more detail in *Designing by Dialogue*.

Planning the Research

Research Methods and Agenda

The literature on breastfeeding practices is replete with quantitative KAP (knowledge, attitudes, and practices) surveys of both mothers and health workers. Such surveys are more useful in identifying the prevalence of practices and prioritizing problems than in guiding how to effectively modify practices. They are also more susceptible to certain problems: because questions are investigator-determined, respondents may give the answers they believe are "correct" or "expected" rather than the actual ones; questions are often not specific enough (e.g., asking separately about water, food, and medicinal concoctions), so responses are difficult to interpret. Ideally, quantitative survey questions should not be formulated until qualitative research has enabled program planners to define the crucial concepts, practices, attitudes, and beliefs that they

hope to modify. (Quantitative surveys are also needed for formally evaluating a breastfeeding intervention.)

This guide proposes that qualitative research methods be used to plan effective program interventions -- particularly in-depth interviews, TIPS, FGDs, and observations. Although a general sequence of methods is recommended, each research director, as proposed above, should have the leeway to make his or her own decisions. The table below summarizes guidance on which methods are more or less appropriate for gathering which type of information needed for planning interventions.

Formative Research Methods on Breastfeeding

Type of Information	More Appropriate Methods	Less Appropriate Methods
KNOWLEDGE of mothers and influencers of scientifically optimal practices	Literature search; quantitative survey; qualitative, in-depth interviews	FGDs
ATTITUDES, BELIEFS, & OPINIONS of mothers and influencers	Qualitative methods, including in-depth interviews and FGDs. These techniques may be enhanced through projective techniques such as drawing or reacting to illustrations, story completion, etc.; in-depth interviews with key informants, particularly to learn ethnophysiology of breastfeeding; information from previous qualitative research and descriptions of belief systems	Surveys; FGDs for professional health staff (who tend to be very conscious of saying the right thing in front of peers)
PRACTICES of mothers and influencers	Combination of: (1) quantitative questions (for specific numbers of feeds, ages of baby for certain practices, etc.); (2) qualitative methods (to gain insights into behaviors and reasons for them); and, (3) observations done in a way to minimize people modifying their behavior because they are being observed -- e.g., in conjunction with in-depth interviews of mothers; or through use of mystery client consultations with health providers	Any single method
Mothers' and influencers' WILLINGNESS AND ABILITY TO MODIFY PRACTICES	Behavioral trials (TIPS) in which a small number of mothers agree to try to make appropriate changes in practices that the program is considering recommending; FGDs	Hypothetical questions
Insights into CONCEPTS, IMAGES, MATERIALS that will be effective in motivating positive behavior changes	TIPS; FGDs and in-depth interviews to pre-test/modify concepts, images and materials	Quantitative methods

To minimize and focus the new field research, one should learn as much as possible during the initial literature search and interviews of key informants (persons who have studied breastfeeding and a few very knowledgeable community informants, such as a TBA with many children and grandchildren). These insights are progressively tested and refined during exploratory research, TIPS, and/or FGDs.

Appendix C indicates the methods that several qualitative studies on breastfeeding utilized to cover various topics. The checklist at the end of the previous chapter provided a generic "menu" of topics for formative research on breastfeeding. In general, the review of existing information and exploratory information will focus on learning as much as possible about perceptions and practices concerning these topics. The trials and checking research phases will focus more on the feasibility of moving key current practices toward more health-promotive practices, including an analysis of major informational, attitudinal, and practical barriers and how to overcome them.

Forming the Research Team

A research director (principal investigator) is primarily responsible for supervising the research, but s/he should also do some interviewing and other fieldwork. This person should work very closely with a person who has expertise in lactation management. Additional team members serve as interviewers, as well as trainers and supervisors. Ideally, all members of the field research team will participate in all aspects of the research (training, interviewing, observation, analysis, and report writing). While early recruitment of the research director and other key research person is critical, so they can make the early decisions on sampling and question guides, interviewers can be hired later.

How the research team is constituted depends on local resources and the level of participation desired by program personnel. The research can be partially or completely handled by the program, which may hire the research director and/or the field workers. Where nurses or nutritionists will be involved in implementing the program, they may be trained and employed as field interviewers, enabling them to learn important new research skills as well as gain in-depth information about breastfeeding and related topics. This advantage must be weighed against the question of whether health staff can shed their professional status to be non-judgmental and non-didactic with mothers and whether mothers will modify their responses to give what they consider to be "correct" answers to health professionals. These problems can be minimized if interviews: (1) are well trained; (2) do not identify themselves (physically or verbally) as health staff; and, (3) work outside of their normal work area.

The research can also be contracted to a research firm or institute. If a firm is contracted, it should be experienced with *qualitative* (as opposed to survey) research and with working with lower socioeconomic groups.

Individuals with some training in nutrition, maternal and child health, or the social sciences are ideal candidates for team members. To the extent possible, team members should be:

- fluent in the local language(s);

- able to establish rapport with strangers, converse naturally on the areas of interest to the study, and observe astutely and with an open mind;
- mature, able to handle sometimes difficult situations, and comfortable with the issues of breastfeeding, child health and feeding, maternal nutrition, and child care (because the subject is breastfeeding, except possibly for interviewing husbands, women usually are the most effective team members);
- experienced with qualitative methods;
- willing to stay in the study communities during the research; and,
- able to analyze a situation, think and act independently, and express themselves clearly in writing.

Team members should have no present or past ties with manufacturers of breastmilk substitutes.

In preparing the team, it is very important for the program manager or research director to establish good group dynamics and efficient functioning. Good team morale is important because fieldwork can be arduous, both physically and emotionally, and time consuming.

Ideally, investigators should work in teams of two or three members. A small team can move together to each community, each investigator taking responsibility for interviewing pregnant women or mothers with young children in a specific age group. Where language varies, team members will have to specialize by language skills instead of by age group.

Administrative responsibilities (e.g., requesting per diem, arranging travel) should be assigned to someone outside the group or divided reasonably among group members. It does not work well to have the research director responsible for administrative arrangements.

Review of Existing Information

In the process of deciding which current breastfeeding and child feeding practices merit program actions, planners should first gather available information on the broad factors affecting breastfeeding that are listed on pages two and three. Such information may be required for strategy formulation (described in Chapter Three) and also helps set the agenda for the new consultative research.

Review Documents

Government, donor, and non-governmental organization (NGO) reports on the nutritional situation and nutrition projects, university publications, theses, national nutrition surveys, DHS data, and qualitative/ethnographic reports are potential resources for information on breastfeeding, maternal and infant nutrition, infant feeding patterns, nutritional status, cultural information, and other pertinent topics. Sources of information on media use and communications programs may include local market research and advertising agencies, radio and television stations, government

information offices, UNICEF, private voluntary organizations, and groups working in non-formal and adult education programs.

If there are many studies available, reviewing information only from the last five years or in one or two geographic areas may limit this phase of the research. However, it should be noted that time and resources invested in the literature review will provide a sound foundation for designing subsequent steps in the research process. Carrying out this step thoroughly may save the project time and money in the long run.

Conduct Key Informant Interviews

Interviews with knowledgeable individuals could continue indefinitely. If time and resources are limited, choose a half dozen individuals who are considered to be local experts on breastfeeding and infant feeding. The types of individuals to interview are nutritionists, MOH technical personnel, clinical researchers (perhaps from a local medical school), health educators and communicators, and anthropologists and other social scientists.

Key informant interviews should supplement and/or explain the information that is gathered during the literature review. They also are a way to discover "common knowledge" that may not be written down. Interviews should be structured but open-ended. The list of the subject areas to be covered in the background document (see below) should be sufficient guidance to focus the discussion.

Prepare a Background Document

This document should:

- Describe the public health situation related to breastfeeding practices: infant and child morbidity and mortality, infant nutritional status, contraception, and lactational amenorrhea;

- Describe current breastfeeding practices and patterns, from prenatal preparation through the termination of breastfeeding, noting what is known on important urban/rural, religious, and/or ethnic differences;

- Begin to identify the most serious deviations of current from optimal breastfeeding practices;

- Summarize what is known about reasons for current practices, including:
  - beliefs and attitudes of mothers, family and community influencers, and health professionals,
  - social support for breastfeeding,
  - cultural norms and expectations,
  - the policy, legal, and work environment, and
  - relevant norms and practices in the formal and informal health services;

- Describe the channels through which program communications could be delivered:

- government health system: numbers and types of personnel, community level outreach, and education,
- NGO programs and networks,
- traditional or non-formal health system,
- traditional or non-formal information systems such as mothers' clubs, literacy programs, and folk theater, and
- mass media;

♦ Examine past efforts to communicate information about breastfeeding and infant feeding, including media experience and educational messages that are currently in use:
- which media have been used and with what impact?
- what educational messages have been or are being communicated?
- what lessons have been learned?

♦ Identify the gaps in existing knowledge, including broad areas such as the absence of household-based research or information on mothers' perceptions and behaviors. What crucial information to improving practices remains unknown or incomplete?

Analysis of What Was Known and Remaining Gaps for Formative Research on Breastfeeding,
National Breastfeeding Steering Committee, Pakistan

Trend	What is Known/Assumed	Remaining Questions
Prelacteal or early feeding	*Usually sweet liquid and herbs, ghee *Done to clean intestines *Fed by finger -- a few drops for one to three days *Brings good fortune	*How firmly held -- reasons *Frequency, quantity, duration *Who gives advice *Is advice on breastfeeding given in the antenatal period?
Colostrum is usually discarded	*Considered dirty, stale, heavy, thick *No positive support from health professionals; they think it is not necessary	*Influence of *dai* (TBA), elder women *Strength of resistance (digestion, custom, tradition)
Breastfeeding is not initiated immediately (child not put to breast until third day)	*Mothers say no milk, illness *Doctors do not encourage in urban areas	*Influence of dai *Support of family members *Characteristics of milk *Knowledge of sucking
Period of exclusive breastfeeding is short, especially in semi-urban and urban areas	*Women claim many breastfeeding problems *Claim insufficient milk *One cause is frequent pregnancies	*What given, when, how much, why *Image and properties of milks, foods *Support of family members *Level of other resistances: loss of "freedom," lack of confidence, feeling of being too busy, loss of figure *Actual breastfeeding practices (both breasts, frequency, duration of each feed) *Role of father, who buys milk?

Liquid supplementation begun in first month	*Water (often sweetened) given in rural areas and water, milk, and bottles in more urban areas, especially in winter *Mothers think necessary for good health *Health professionals encourage	*Mode of feeding -- gauze, bottle, hand, ... *Properties and "culture" of different supplements *Opium giving
"Solid" food introduction varies -- in best situation is late (six to nine months), although often nine to twelve months	*Seems to be a fear of food causing problems *Have no orientation	*Variations by situation *View of child development (ages vs. stages -- teeth, sit up)
Little food variety -- most common are biscuits, breads, rice	*Influence of hot/cold and light/heavy belief systems *Socioeconomic status may make a difference	*Mode of feeding *Frequency of feeding *Dilution of feeds *Content of feeds *Quantity *Giving "adult" diet (relation to family's food) *"Snacks"
Feeding during illness (diarrhea) seems poor -- often withdrawal of food	*Child doesn't want to eat *Mothers fear effects *Lack of information	*Source of advice *Variation by illness *Feeding during recuperation *What should be fed *Who is responsible *Role of food hygiene
Strongest influence on child feeding seems to be other family members, dai, and doctor (especially regarding breastfeeding)	*Access to health services low *Utilization of government services poor *Doctors' prestige high	*Who has best potential to influence (mullah?) *Role of father *Role of elderly women *Opinion about new advice *Why not using government facilities *Ability to "control" health

Exploratory Research: In-Depth Interviews and Observation

This first phase of field research is usually done through in-depth interviews (and observations) with mothers, fathers, older women, any important community influencers, and the most relevant traditional or formal health workers. FGDs may also be included, particularly if a great deal is already known about perceptions and practices and you need to explore social influences or cultural norms. Usually, however, FGDs are more appropriate for in-depth exploration of a few in-depth questions later in the process.

This phase may be extensive or limited depending on the analysis of what is already known, the number and importance of remaining questions/gaps in your information, and budgetary or time constraints. This initial phase of the new, consultative research focusses on learning what is already known about:

- the nature and prevalence of current breastfeeding practices that highlight major gaps between them and optimal practices;
- beliefs and attitudes of mothers and influencers that explain those practices;

- health workers' perceptions and practices;
- current and potential communication media, resources, and experience; and,
- community support and cultural norms for breastfeeding.

In-depth interviews are guided yet flexible discussions. The topics are predefined, but there are no predetermined categories for answers. "Yes" and "no" questions are asked, but the key question is why, so interviewers' notes are often extensive. This flexibility allows the discussion to proceed in directions that may not have been anticipated during interview planning.

Determine the Sampling Scheme

There are no clear and fast rules by which to determine the sample size. Basically, the team is looking for the optimal size that will give them sufficient in-depth information about the categories of respondents that seem most important to the research, within the real world constraints of time and budget. The decisions depend in part on:

- what is learned from the literature search and interviews with experts;
- how the sponsoring organization has defined the problem being addressed (e.g., is the concern with declining breastfeeding in urban areas? is the concern with poor women only?); and,
- the experience of the implementing organization and the feasibility of targeting separate messages to many audience segments.

The particular population characteristics that are singled out for investigation should be those that are hypothesized to have the greatest effects on breastfeeding beliefs and behaviors.

Experience shows that rural or urban residence is usually a key factor, as well as the extent of contact with the formal health system (which may have positive and/or negative influences on practices), socioeconomic status, and ethnic/religious group where people are very traditional. Young or first-time mothers might be separated out in places where they are very much under the influence of mothers-in-law or others. Less important distinguishing characteristics of the population may not be criteria for segments but can still be examined separately during analysis of the research. Segments may be defined by general categories and within those by types of people. Following are some common categories by which the population can be sampled.

General Categories

- urban/rural
- major cultural/ethnic groups believed to have different beliefs and practices regarding breastfeeding
- more educated/less educated

Types of People

- pregnant women:
  - first-time pregnancies
  - at least one previous pregnancy
- mothers of children in certain age groups (defined partly by ages at which the main breastfeeding problems are believed to occur),
- mothers by breastfeeding category
  - never initiated breastfeeding
  - supplemented in first three months
  - fully or exclusively breastfed for about six months
  - fully or exclusively breastfed for more than six months
- mothers by separation status (away from their baby more or less than three hours per day)
- husbands (male partners)
- older women: depending on the culture, either mothers or mothers-in-law may be more important
- health care providers: depending on who sees a substantial portion of mothers during pregnancy and the postpartum period, there could be segments for:
  - TBAs
  - doctors
  - nurses
  - community health workers

If in doubt, it is usually better to use fewer research segments. If new groups appear to be important from the results of the initial research, separate segments for them can always be added in later stages of formative research.

Social class may be a selection criterion, but usually the entire sample will be within the lower socioeconomic class, since this is the class most at risk for the negative results of poor breastfeeding practices.

Following identification of the population segments, the next step is to select the geographical *population units* within which the research will take place. The most appropriate unit for this research may vary from region to region and country to country. In rural areas of Java (Indonesia), for example, entire villages would be selected; outside Java, where people group themselves differently, the unit of study might be the *dusun* (a sub-village unit). In Ecuador, an entire parish might be the research unit in rural areas, while census tracts might be selected in urban areas. In Swaziland, rural people live in homesteads, so the research boundaries are defined by census enumeration areas.

Each population unit should be "normal" in terms of the characteristics selected to describe the segment, for example, urban poor, migrant, etc. Select only one to three population units in each segment for the household interviews and observations.

An illustrative sampling scheme for a study of breastfeeding follows: The major regional breakdown of the sample might include three cultural/ geographical areas: ethnic group A in rural areas, ethnic group B in rural areas, and urban areas without regard to ethnicity. (It is advisable not to have more than four.) Within each of these three areas, select two typical population units at random. The number of interviews planned might be as follows:

Segments	Ethnic group A, rural area 1	Ethnic group A, rural area 2	Ethnic group B, rural area 3	Ethnic group B, rural area 4	Urban area 1	Urban area 2
Pregnant mothers	3	3	3	3	3	3
Mothers of babies < six months, supplemented in first two mos.	5	5	5	5	5	5
Mothers of babies < six months, supplemented after first two mos.	5	5	5	5	5	5
Mothers of babies six to eleven months	3	3	3	3	3	3
Mothers of babies twelve to 23 months	2	2	2	2	2	2
Fathers of babies < six months	4	4	4	4	4	4
TBAs	2	2	2	2	0	0
Community health workers	1	1	1	1	1	1
Auxiliary nurses	1	1	1	1	2	2

This sampling scheme would yield a total of 154 interviews. If this total is too formidable, certain segments in some units could be cut down or eliminated.

Findings from the initial in-depth interviews are intended to reveal beliefs and practices but not to delineate precise prevalences or to be interpreted statistically. A clearly thought-out and well-planned sample design is critical to the success of this activity, but it must be one that can be managed by available personnel and resources.

This is a purposive sample. Although within categories the sample is random, the sample has no statistical power, and should not be used to produce quantitative results. During the research, the team may decide not to interview the entire sample, if interviews after a point stop yielding new and useful information. Or the team may decide to add interviews of a certain type of respondent on the basis of early findings.

On the one hand, this flexibility is a great advantage of this type of qualitative research. On the other hand, the validity of findings is entirely dependent on good decisions regarding the sampling plan and on expert interviewing and interpretation. Another disadvantage is that quantitative findings may be needed to convince decision makers of the reliability of the information, but these are not available from this methodology. (If the project is formally evaluated, however, quantitative baseline and follow-up surveys should be conducted. Moreover, a limited amount of quantitative information can be gathered during interviews and observations, including a food frequency analysis.)

Recruit the Households

Once the household sampling plan has been determined, the actual households must be identified. Guidance is required by the research director or program manager because deviations from the plan may be necessary if the interviewers have difficulty locating enough respondents of certain types or they encounter other problems. In addition, care should be taken to avoid obtaining a biased sample because of close proximity to a health facility or other reasons. If feasible, recruiters should visit all homes in the population unit and complete a recruitment sheet only for families with a mother or child within one of the categories.

The program manager or research director:

- sorts the recruitment sheets into appropriate categories (age group, ethnicity, etc.);
- selects the appropriate number of households (randomly, or according to additional criteria to ensure that all of the age segments are considered) as set forth in the sampling design; and,
- designates replacement households in the event that some of the families selected cannot participate in the study.

Recruitment does not necessarily lengthen the research process. Often, it can be done by field workers or local health workers while the question guides are being drafted and tested by the research team.

Children of families that are extremely atypical due to a social or medical problem should not be selected. It is also important that each segment include children from throughout each age range.

Prepare Question and Observation Guides

The guides usually are composed of specific questions to be asked by the interviewers, guidelines for observation, and information to identify the respondents (name, address, age). If interviewers are very experienced, a list of topics to explore may be preferable to specific questions. Question guides minimize problems by structuring notetaking. Ample space is left for comments and remarks that can be incorporated into specific slots or marginal columns on the question guide when the field notes are reviewed after the interview. Observed breastfeeding practices can be used to validate what mothers say about what triggers breastfeeding (mother's or baby's initiative), the baby's attachment, breastfeeding frequency, length of feeds, cues to stop feeding, etc., and can provide additional details.

The topics covered in the interviews of health workers and opinion leaders may be the same or different from those covered in the household interviews. The "menu" of topics (important breastfeeding practices and factors that influence them) is in Chapter One. Examples of observation and interview guides on breastfeeding are found in Appendix D.

The initial draft guide should be pre-tested and refined prior to beginning fieldwork. A final pre-test can be done during interviewer training.

Train the Team

Training the research coordinators, supervisors, and interviewers may last from three days to two weeks depending on the team's research experience and their knowledge of breastfeeding and child feeding. Training should cover:

- an overview of the project, its objectives, goals, and implementation schedule;
- a review of optimal breastfeeding practices and their benefits and of what is currently known about mothers' beliefs and practices regarding breastfeeding;
- a complete description of each information-gathering technique;
- instructions on correct use of the recruitment forms and practice in recruiting (for recruiters, who are not necessarily the same as the interviewers);
- instruction and practice in techniques for establishing rapport with family members and other informants;
- a complete explanation of each question guide and how to record responses to each question;
- instruction and practice in conducting open-ended interviews, with emphasis on developing good listening and notetaking skills and on identifying and pursuing conversational "cues" (new and interesting comments that are relevant to understanding practices, resistance points, and motivations to change);

- instruction and practice to develop observational skills, first by role-playing and asking trainees to explain what behaviors they noticed, then by observing in communities and health facilities and asking trainees to observe and document different practices;
- instruction and practice in using a tape recorder; and,
- pre-testing and revision of field instruments.

Materials to prepare for the training include: a course agenda; a summary of the objectives, methods, and desired outcomes of each information-gathering method; a tentative field plan for the in-depth interviews; a description of different interview techniques; and a reference document on breastfeeding.

The following agenda, for training experienced qualitative researchers in Pakistan, provides one example.

Day 1:	Opening and introductions Discussion of purpose (develop a breastfeeding promotion activity) and expectations The role of research in preparing the program -- why qualitative research Optimal breastfeeding practices Preparing the research plan -- what we already know, what we want to know
Day 2:	Who should we talk to -- sample selection How can we gather the necessary information: individual in-depth interviews and FGDs Specify sample selection by research method List topics for in-depth interviews and FGDs Draft in-depth interview guide
Day 3:	Develop the FGD guide Review FGD techniques Modify the guide Practice
Day 4:	Practice conducting one in-depth interview and one FGD in community and hospital maternity wards Discuss experience
Day 5:	Continue discussion: revise guides and techniques for later work Analyze field practice
Day 6:	Analyze field practice (continued) Discuss breastfeeding problems and solutions
Day 7:	Draft trial guides for in-depth interviews and FGDs Practice
Day 8:	Return to communities and hospital to discuss proposed practices with mothers Discuss experience Revise guides
Day 9:	Analyze/discuss results Finalize research plan for the next six weeks

Draft a Field Plan

Prepare a field logistics plan that lists members of the field team(s) and provides a schedule of where and when each team will be working. A number of factors should be considered in drafting this plan, including logistical constraints (flights, ferry schedules, market days, local customs and holidays, etc.), the number of field investigators, and how many interviews each can do in a day.

It is important to leave ample time for discussion and reflection on the information collected, as well as for organizing field notes and revisiting households when necessary.

Conduct the Interviews

In many places, it is advisable to visit the formal or informal community leader to ask for his or her permission to carry out the research, and possibly to hold a community meeting. It is important to explain why the information is being collected, but as noted above, it is *not* advisable to identify the interviewers by profession, especially if they are doctors or nurses, because this immediately establishes set behavior/response patterns by respondents.

In general, it is recommended to interview health workers, TBAs, and other opinion leaders first, because these interviews help identify community norms and the opinions of key people concerning them. It is advisable to conduct these interviews soon after arriving in a community, because these discussions should aid in the identification of topics to address in the subsequent household interviews and help to clarify issues.

Conduct these interviews in a place where the respondent feels s/he can speak freely and candidly. The informant should select a convenient location and time for the interview. The interview is structured but open-ended. It is relatively short, preferably not longer than an hour in length (in contrast to the longer household interviews).

Community informant interviews, like household in-depth interviews, are taped if possible, although notetaking may also be extensive. The difficulty in keeping extensive notes while at the same time listening attentively underscores the desirability of having experienced field researchers as interviewers. The community informant interviews should be summarized immediately so that decisions about modifying guides and new lines of inquiry can be made and acted on.

Prior to initiating an in-depth household interview, it is important to establish some level of acceptance with the family, so it is best if the interviewers make a brief initial visit. The entire interview, including structured observation, can last as long as several hours. Observing what normally occurs in the household becomes easier the longer the interviewer spends in the home. If it is inconvenient to remain in the home for long periods, a series of shorter visits should be planned, ideally covering different times of the day.

Establishing rapport with respondents is generally not difficult if interviewers are sympathetic and speak the local language. Once rapport is established, it is not difficult to fill time at the house, as the family will not feel they must treat the interviewer like a guest, but will go about their chores, leaving the interviewer to complete notes or to help. Questioning does not have to stick

to the guides. If the interviewer is in the house repeatedly or for an extended period, introducing discussion about cooking and recipes can divert the conversation from the family but still reveal the respondent's views. The atmosphere should be relaxed. If the mother sits in the shade for a minute to shell peas, the interviewer should sit with her and let her begin the conversation.

When the interview begins, it is easiest to start with the basic questions: name, address, and family composition. After this information is obtained, informal discussion is pursued. The interviewer's role is to guide the conversation by asking different types of questions, probing, and requesting clarifications. In obtaining views and specific facts from the respondent, the interviewer must be careful to avoid suggesting "correct" or desired responses.

Unlike formal surveys, in which responses are brief, in-depth interviews encourage clarification of what each person says. Elaboration of a response to reveal its fuller meaning is often achieved through repetition or rephrasing a question. In-depth interviewing enables the exploration of new themes and issues as they emerge by asking a question more than once, with a slightly different focus.

If a respondent seems reluctant to converse because s/he does not think s/he has any information to offer, the interviewer must encourage confidence and offer assurance that what s/he does know is of great interest and importance.

Structured observation is extremely important in breastfeeding research, because many women are not conscious of the number of breastfeeds, length of feeds, etc. Moreover, observation in a natural situation is a check on women reporting false information because they believe it is what the interviewer wants to hear.

Analyze the Results of the Exploratory Research

During the course of the field work, the team should discuss and summarize information from the key informant interviews by topic and content. All key informant interview results (summaries, tabulations, and insightful verbatim answers) should be analyzed by area and type of informant (for example, compare TBAs' and community health workers' views). The analysis should also assess the extent to which key informants' observations on common practices accurately reflect what mothers actually say and the extent to which they influence mothers.

The team should also review the results of the in-depth interviews daily throughout the course of the field work to identify areas that require clarification or additional study. The team should summarize each guide, making judgments when necessary about the practices. Summary sheets can be filled out in the field each night by the investigators or after all the interview is finished. Completing the summaries immediately is preferable because the information and impressions are still fresh.

Sort the information by locale, young or older mother, ethnic group, etc. Then create tally grids for important pieces of information. Tally grids can present one "variable" for all households in the sample, if there are not many, or they can include several "variables" for just one community. Tally grids enable the field team to easily observe patterns and differences between families and areas. For example, by the criteria used to define sampling segments (geographical areas,

children's age, ethnic group) or other criteria (e.g., young or older mothers), many types of data can be analyzed on tally sheets.

Draw conclusions on each topic by tallying all of the information on each page and comparing the different cells. Write the conclusions on each tally sheet. Summarize the feeding history and current practices for each child separately, using one page per child. Each of these pages should be coded with the age of the child, the area where the child is from, etc. This coding will permit sheets to be shuffled as needed to conduct various analyses. On the basis of this analysis, the research director can formulate hypotheses about current practices, reasons for them, and acceptable suggestions for modifying them. These hypotheses can be tested in the next phase of research, the trials of new practices.

One way in which results of the observations may be combined with interview responses is to develop "composite scores" for particular behavior clusters such as breastfeeding style, complementary feeding style or food hygiene. This is done by identifying a short list of key practices, scoring the household as "yes" or "no" on each, and then totalling the score. Average scores in different segments can be compared. And scores on behavior clusters can be compared to composite scores on knowledge to determine the gap.

Mothers in Pakistan had a high composite score on breastfeeding style if they:

- fed on demand;
- fed from both breasts;
- let the child decide when to stop;
- reported that they initiated breastfeeding within an hour of birth; and,
- breastfed exclusively.

Computer software programs are available to do the sorts and assist with analysis. Although these may be helpful, particularly for a larger sample size, they can assist but not substitute for the research team's insights and connections among factors.

Write the Report and Prepare for Trials of Improved Practices (TIPS)

The exploratory research report should include:

- an introduction and brief summary of field procedures;
- a description of the situation in the communities studied (this information, primarily from the recruitment sheets, will cover characteristics of all the households surveyed from which the few sample households were selected);
- a description of the participating families and key informants;
- a description of breastfeeding beliefs and practices;
  - what are breastfeeding beliefs and practices and how do they change as the child matures?

- what are weaning patterns (age of introduction of foods, type of food, preparation, mode of feeding, quantity and quality)? How do they change over time?
- what important beliefs of mothers encourage or discourage optimal breastfeeding practices (e.g., regarding the cultural context, work)?
- to what degree are breastfeeding beliefs and practices the product of economic, logistic, and sociopolitical influences?
- how does a child's behavior influence child feeding decisions made by the mother? What behaviors elicit a particular response from a mother?

♦ an analysis of breastfeeding and other feeding during or following diarrhea and other illness; and,

♦ information on media use and sources of information on maternal diet and breastfeeding and conclusions and recommendations for areas requiring careful study during the TIPS.

Determine priorities and the specific practice changes that will form the basis of the TIPS. This activity can be done prior to finalizing the exploratory research report. (The priorities can subsequently be incorporated into the conclusion and recommendation section of the report.) The basic steps are:

♦ Divide the population by children's age.

♦ Compile a worksheet (for each age segment that lays out, in column form, a description of:
- key breastfeeding and weaning practices by age grouping as discovered in the interviews and observations;
- ideal or expected practice for each of the actual practices noted;
- reasons or resistances that prevent the population from following the ideal practices and the strength with which they are felt or adhered to; and,
- areas where change may be possible and the nature of the change and motivation for it.

All practical options that will lead to the desired nutritional or health benefit should be explored.

All of the different behavior change options, including motivations, reasons, and benefits that would encourage mothers to change their practices should be listed on paper. This list contains benefits the program planner feels are important and that are meaningful to the mother.

Trials of Improved Practices (TIPS)

If a program wants to successfully motivate changes in people's daily practices in their homes, it should consult with those people to test and refine those changes first. Through TIPS, women's ability and willingness to make specific changes in practices are investigated through a week-or-so-long trial with before and after interviews. Through TIPS, planners can learn:

♦ the relative ease or difficulty of inducing the desired practices;

- if the recommended practices should be modified and how; and,
- if any new resistances emerge.

In contrast to pre-testing educational materials (a much later step), this phase tests the feasibility of people carrying out the advocated *behaviors*. While it is desirable to conduct trials of all key proposed behavioral changes, some important changes in breastfeeding practices are difficult or impossible to test, either because appropriate people are difficult to locate or because they concern long-term behaviors that cannot be tested in a week-long trial. These particular changes, therefore, must be explored through checking research (usually FGDs) alone. The table below indicates the feasibility of undertaking trials of certain breastfeeding practices.

Feasibility of TIPS on Breastfeeding Practices

Practices	Feasibility of Conducting Trials
Initiation of breastfeeding: begin immediately postpartum, feed colostrum, limit or eliminate ritual feedings	For the initial interview, mothers must be located when they are about to give birth -- either in a health facility or in the community. The follow-up interview is likely to take place in women's homes. Locating appropriate women in rural areas may be somewhat difficult, although only a small number are needed.
Improve the breastfeeding mothers' diet -- nutrient content, calories, liquids, number of meals and snacks	Where these are important issues, they can be tested easily in the community. Mothers in the special postpartum period (which often lasts for 40 days) should be looked at separately from mothers beyond this period.
Feed on demand rather than on a schedule	This can be tested either in a facility or home setting. Note, however, that an important cause of scheduled feeding is likely to be medical advice, which any solution should address.
Continue breastfeeding even when the mother and infant are separated for three or more hours during the day	Although not all solutions for these potential problems can be tested (e.g., the trial cannot establish a trial nursery at a factory), some can (e.g., mothers' ability and willingness to express milk and babies' willingness to consume it).
Give more and longer feeds each day	These practices can be tested in the community.
Delay the introduction of supplementary foods until the baby reaches four to six months	This is quite difficult to test in a trial, since mothers must be located who are on the verge of starting to supplement. However, mothers who recently began supplementing could be asked (depending on the child's age): (1) to return to exclusive breastfeeding; (2) to reduce the frequency of supplements and to increase breastfeeding; or, (3) to feed supplements by cup rather than by bottle.
Continue breastfeeding during diarrhea and other illness	This can be tested, but it may be difficult to locate breastfeeding mothers whose babies have diarrhea or other illness. The trials must consider not only the mothers' characteristics and the child's age but also the severity of the illness.
Continue some breastfeeding beyond twelve or eighteen or 24 months	This is difficult to test in a short trial, because you must locate mothers who are in the process of terminating breastfeeding.
Continue breastfeeding despite "insufficient milk," sore nipples, or other breastfeeding problems	This is possible to test, but finding mothers who have just stopped breastfeeding or who are ready to stop because of these problems may be difficult, especially in rural areas. Also, by asking mothers who complain of insufficient milk to feed more frequently, it is possible to see if their perception changes.

TIPS are not found in most research methodologies. They are included here because experience has shown that their benefit to program design is worth the additional time and expense. Just as a commercial marketer would not launch a new food before a pilot test, public health programs should not promote new feeding practices without pilot testing them for mothers' reactions and suggestions. A great deal is learned during this step about how people will respond to a program's recommendations and about the most important resistances to changing current practices. It is becoming a crucial research step.

Develop Specific Behavior change Recommendations

To conduct TIPS, specific behavior change recommendations are established for each age group, based on the findings from the exploratory research and the analysis of how to close the gap between real and ideal practices. Try to limit options to those practice changes that combine the greatest potential for health impact with the greatest chance for success.

Prepare the TIPS Guides

The guide should provide the following information that should be given to the mother:

- Several practice changes, related to breastfeeding or young child feeding, appropriate for each age group;
- The appeals/motivations that are believed to be most effective in stimulating compliance;
- Mention of "doctors" or some other authority as the source of the advice;
- Information to combat attitudinal barriers to the behavior;
- Suggestions for how to overcome practical barriers;
- Guidelines for reaching an agreement with the mother to try one or more new practices for a certain period of time (usually five to ten days) and to be re-interviewed about her experience (the mother should be asked to describe her current feeding practices and, particularly for babies over six months old, to complete a 24-hour dietary recall);
- Space to record the recommendations discussed with the mother and her positive and negative reactions to each (her overall reaction to the suggested practice(s), her desire to follow the advice(s) and why, who she thinks she needs to consult with about the advice, her perceived ability to follow the advice and why, and her expectations of making any changes in the advice, what, and why);
- Space to record the recommendations that the mother agrees to implement; and,
- A place to record, during the follow-up visit, the mother's comments once she has tried the recommendations.

A variation that can be used -- particularly if the exploratory research was either small-scale or skipped all together -- is to: (1) conduct an initial in-depth interview that is essentially a diagnosis of the mother's current breastfeeding/infant feeding practices. Then either at the end of the visit or in a second, begin the TIPS stage with (2) a counseling/negotiation visit, during which the interviewer proposes several appropriate and needed changes in practices, and the mother agrees to try out one or more of them followed by (3) a follow-up visit to see what was done and why. (This three-step form of TIPS is described in great detail in *Designing by Dialogue*.) Below is a portion of the assessment and counseling guide for TIPS in Oyo/Osun, Nigeria.

Assessment and Counseling Guide:
Common Feeding Problems and Recommendations for Household Trials
in Oyo and Osun States, Nigeria

Age Group: Birth to 2.9 months
Ideal feeding pattern: Exclusive breastfeeding

Problem 1: *Mother not breastfeeding exclusively*

Recommendations:

1a. If child not yet breastfed and being given prelacteal feeds: Put child to breast and breastfeed frequently, day and night.

1b. Breastfeed more frequently: on demand and at least eight to ten times per day (24 hours).

1c. Sleep with the child and breastfeed during the night.

1d. Stop giving feeds of water, milk, concoctions, pap, or other foods/liquids.

1e. Reduce feeds of water, milk, concoctions, pap, or other foods/liquids (reduce frequency or amount).

1f. Express breastmilk to be given to the child when mother is absent.

Problem 2: *Mother not breastfeeding child at night*

Recommendations:

2a. Sleep with the baby and breastfeed while lying down.

2b. Feed expressed milk during the night.

Problem 3: *Mother trying to breastfeed exclusively, but feels she doesn't have enough milk*

Recommendations:

3a. Breastfeed more frequently -- two more times per day, minimum of eight times per 24 hours.

3b. Use both breasts at each feed and empty breasts completely by feeding longer.

Problem 4: *Mother is giving inappropriate bottle feeds and is not willing/able to breastfeed exclusively (or is not breastfeeding at all)*

Recommendations:

4a. Increase breastfeeding as much as possible and reduce the amount of formula.

4b. Use an appropriate infant formula and stop giving feeds of pap, "tea," or other concoctions.

4c. Prepare formula properly, according to instructions.

Age Group: 3-5.9 months
Ideal feeding pattern: Exclusive breastfeeding

- If child is predominantly breastfed, see previous page for problems and recommendations for moving toward exclusive breastfeeding. This is the preferred option.
- If child is taking a substantial amount of complementary foods and exclusive or full breastfeeding is not feasible, see problems and recommendations below, for next age group.

Age Group: 6-8.9 months
Ideal feeding pattern: Frequent breastfeeding complemented by nutritious soft foods

Problem 5: *Semi-solid or liquid feeds are not nutrient-dense enough (or complementary feeds are not yet given)*

Recommendations:

5a. Give child locally available, affordable, nutritious foods such as eko-afala, moin-moin, mashed beans, ekuru, yam pottage, etc.

5b. Make pap thicker (using more ogi paste) and feed using a cup and spoon; stop over-dilution with water.

5c. Enrich ogi with groundnut, crayfish, egusi, soy flour, cowpea flour, palm oil, sugar, milk, or egg, etc.

5d. Give mashed fruits or vegetables (banana, papaw, orange, mango, roasted plantain, cooked green leaves, etc.)

*All are to be fed with cup and spoon, not with bottles or by force feeding.

Problem 6: *Child is fed less than three to four times per day (in addition to breastfeeding on demand)or given too small amounts (less than 1/2 cup serving of mashed foods or less than 3/4 cup of enriched pap)*

Recommendations:

6a. Feed one extra meal or snack every day.

6b. Increase serving by two spoonfuls each meal (or more if child will take more) and encourage child to eat the whole serving.

Problem 7: *Breastfeeding being reduced/replaced too quickly*

Recommendations:

7a. Breastfeed more frequently, on demand and at least eight times per day.

7b. Breastfeed first, before offering other foods.

7c. Breastfeed on demand at night.

7d. Give expressed breastmilk to child when mother is absent.

Train the Field Team for TIPS

A short refresher training for field team members should be held before implementation of the trials. The course should include:

- a review and discussion of the findings up to this point;
- discussion of the ideal versus the actual practices for each target group and the nutrition or health reason for concern;
- discussion of the rationale, procedures, and how to use the discussion guide, including how to negotiate with mothers to find appropriate behavioral recommendations; and,
- techniques for and practice in motivating respondents to adopt recommendations.

Implement the Trials

The number of mothers in the TIPS depends on how many key practices need to be tested and how homogeneous the total study population is, but often ten mothers in each age segment is sufficient. A decision must be made on whether separate samples must be drawn from urban and rural households and/or from different ethnic groups.

Since the purpose of the TIPS is to obtain the target audiences' reactions to proposed behavior changes both before and after they try to implement them, negative reactions and unsuccessful

adoption are as important as positive reactions and successful adoption. The reasons why a practice was not followed and under what conditions it might be, as well as any modifications that people made in the recommended practice during the trial, are very valuable research findings.

Interviews for the trials should take less time to complete than in-depth interviews. Interviewers may make the initial visit to up to five mothers each day (if they are not too dispersed).

It is easiest to do trials where rapport has been established through the in-depth interviews. If the household did not participate in the exploratory research, then a preparatory visit is needed to get acquainted with the family and child. Although it may seem difficult to ask the mother to change practices, at least in the households where rapport is established, families are usually delighted to see the interviewer return and often view this counseling as a reward for their earlier participation. With rare exceptions, families are anxious to improve practices for the well-being of their child.

Initial Visit(s)

- Determine current attitudes and practices concerning breastfeeding and select the appropriate behavior modification(s) for the mother to try. This visit may include a 24-hour recall or food frequency analysis for babies over six months old.

- Discuss each appropriate recommendation with the mother to get her opinions and reactions. Try to convince the mother to adopt one or more of the recommended changes if she is resistant to do so, and carefully note what the mother's hesitancies are and how they were or were not overcome. Try to persuade the mother to adopt the behavior change for the next five to ten days.

- Make an agreement with the mother on the specific changes she will try and set up an appointment with her to return to get her reactions and opinions.

Follow-up Visit(s)

- Discuss:
  - the degree to which the mother followed the advice;
  - why she did what she did;
  - how she felt about her experience (how hard or easy? any problems?);
  - what other people thought or advised and why;
  - whether she or her child derived any benefits or harm from the practice (what?);
  - if she modified the recommendation and why; and,
  - whether she intends to continue following the practice and why.

Analyze the Trial Results

During the trials, investigators keep summary sheets that contain the mother's or child's name, age, before-and-after breastfeeding summaries, behaviors discussed and demonstrated and reactions, behaviors mothers agreed to try, and reactions and follow-up. After the fieldwork is completed, the results for each target group are tabulated from the summary sheets by community and type of mother/age of the child. In the initial analysis, it is important to note which children

are either sick or malnourished to see how this affects mothers' practices. In this analysis, include:

- recommendations and motivations given;
- changes in practices agreed upon;
- outcome of the agreement (was it kept, modified, or not followed, and why);
- reactions from the child and mother (like/dislike and why, including advice from others, problems, benefits they derived, intention to continue and why);
- comments by other people about the recommendations; and,
- comments from the investigator.

Analyzing the tabulated information will enable the research team to:

- determine the most appropriate segmentation of the target groups (by age of child, geographical area, etc.) for further research and/or the educational program;
- identify the specific practice changes for each segment that were most frequently recommended and most often implemented and/or would impact most on improved breastfeeding;
- identify the concepts/practices that warrant further testing;
- establish who, in addition to mothers, should be included in checking research; and,
- identify other specific improved practices or broader concepts that should be examined further during checking research because they could not be studied through the TIPS.

Write the Report on the TIPS

The summary report on the TIPS should include:

- A *summary of conclusions, for each type of mother and child's age segment,* on which recommended behavior changes are most likely to be accepted and adopted and to have the greatest impact on child health and nutrition. Geographical or cultural differences and any factors such as mothers' work outside the home that directly affect the adoption of behavior changes should be highlighted. Conclusions for each age segment should discuss what did not work and why. Adaptations that mothers felt should be made to recommended practices should be emphasized.
- A *discussion of the conditions necessary for achieving change or overcoming resistances.* Perhaps there are people (e.g., grandmothers, fathers) who are critical to decision-making

and who must sanction changes before mothers will try them. Or there may be basic concepts that must be communicated before the specific changes will occur.

Checking Research: Focus Group Discussions (FGDs)

Checking research, which usually employs FGDs as the main methodology, is intended to learn more about those specific practices that could not be tested in trials, to check how generalizable TIPS findings are to a wider audience (e.g., in another part of the country), and to obtain reactions to what is tentatively proposed by health workers or others who will be very involved in implementing program activities. FGDs are also very useful for learning general information about images, cultural values, and motivations.

FGDs are thematic discussions among a small, homogeneous group of potential program beneficiaries or people who influence them. FGDs afford program designers an opportunity to learn directly from their future "clients," in the clients' own words, what they think of certain products or why they uphold certain practices, and the benefits they hope to experience. Although not appropriate for documenting actual practices, this is an excellent technique for learning about attitudes and perceptions.

The popularity of FGDs has grown dramatically in the past few years, and they now are viewed by many as a quick research technique applicable to a wide variety of situations. While the FGD can be an extremely valuable research technique, it must be used correctly and appropriately. Having an experienced moderator, recruiting participants carefully, and not trying to cover too many issues are all critical. FGDs too often are used to cover a broad topic superficially, when in fact their appropriate use is an in-depth exploration of a narrow topic, of a limited number of concepts, or one or a few proposed communication materials. For this reason, if is often more effectively used in later stages of program planning to explore particular issues or concepts that have emerged, not as an early method of information gathering. A wide variety of topics cannot be adequately explored in a single FGD (in-depth interviews are more appropriate). FGDs make use of group dynamics. Where this is useful to a topic, they are a highly appropriate research method.

Research plans should not include too many FGDs, but only enough to have two or three in each research segment (geographic/cultural/personal characteristics). Studies with too many FGDs tend to not to be sufficiently in-depth; and if the groups are conducted by an experienced moderator and within other essential parameters, they are expensive in labor and monetary cost. Particularly if used in conjunction with other research methods, there is rarely a need for more than fifteen or so FGDs. Many excellent qualitative studies have used only five to fifteen groups.

FGDs are recommended for checking research to test already defined behavior change recommendations and to obtain "top of the mind" responses to the ideas from people who have not been exposed to the research. FGDs are not a good way to get information about practices. FGDs are conducted among mothers (and other child caretakers) who were not involved in the development of the recommendations and individuals who currently provide information on nutrition and health and who probably would use the educational materials and messages that result from the research.

FGDs are not recommended unless moderators with good local language skills, verbal skills, knowledge of group dynamics, and experience in abstract thinking are available. In addition, if the behavior changes to be tested are few in number, the population small and homogeneous, and the research team feels very confident in the information gathered and the conclusions drawn thus far, this step may be skipped. However, if the project has a large and somewhat diverse target audience, the behaviors are complex, and people's resistance to change is high, this step is strongly recommended.

Plan the FGDs

Select staff. For a topic such as breastfeeding, experienced women moderators are highly preferable, except for groups with men. Conducting FGDs may be contracted to a market research firm or a social science research group skilled in the technique. If skilled professionals who speak the local language are not available to serve as moderators, the most adept in-depth interviewers can take on this task. In this case, several practice groups should be run and analyzed under the guidance of a trained moderator.

If the project staff is responsible for carrying out the FGDs, three different types of people are needed:

- *recruiters* to locate and invite eligible participants;
- *moderators* to conduct the groups; and,
- *notetakers* (who also may have been members of the household interview team) to list topics discussed and the reactions of the group participants, assist with transcription, and ensure that the entire discussion is recorded. (Tape record also, if this is acceptable to participants.)

Choose the Sites for Discussions. Choose sites for FGDs different from those where the in-depth interviews took place. The same geographical areas may be used, but if there is a minority ethnic or religious group that was not sampled during the in-depth interviews, representatives could be included here. Although new areas may be added, it is preferable to limit these to no more than two, or the logistics become too complex. A maximum of six sites is sufficient for most programs.

Plans should have some built-in flexibility, because the total number of discussions should depend both on the number of segments identified (sites and types of participants) and on how satisfied the research team is regarding the discussions as they take place. If a discussion was dominated by one person or for some reason was unusual, it should be repeated. This will require finding another site that is similar to the first.

Choose the Participants. Each discussion should include six to eight participants, usually selected on the basis of their homogeneous characteristics. Normally, it is not recommended to mix people from different sexes, social classes, or age groups, if these characteristics mean that certain members of the group will dominate the discussion and others will be intimidated. However, it may be informative to have a small number of mixed groups (e.g., husbands and wives,

breastfeeders and non-breastfeeders, or mothers and their mothers) IF none of the group will be too intimidated to speak freely. Mixed groups will not work in extremely traditional cultures.

The important characteristics to include should be listed, and those most relevant for each site selected and specified in the sampling plan. For example, the desirable group characteristics might be chosen from among the following:

1. mothers with a child <24 months and who have no other children;

2. mothers with a child <24 months and with other children;

3. mothers with a child <24 months and who work outside the home more than three hours a day;

4. mothers-in-law living with a daughter-in-law whose child is <24 months;

5. fathers of children <24 months; and,

6. community health workers and/or heads of mothers' clubs.

Not every group needs to be covered in every site, so, for example, mother-in-law and community health worker groups might be held in rural areas only and groups of mothers who work outside the home (away from their baby) might be held only in urban areas. For each segment identified, try to do at least two groups to verify results. Exercise caution when selecting the segments because the number of groups can grow rapidly.

Recruit Participants. Following a procedure similar to that used for the in-depth interviews, the research team recruits participants for the FGDs. Recruiters go house to house in the selected population unit to find people who meet the criteria. They use recruitment sheets that contain a few extra questions beyond those needed just to screen for eligibility (e.g., educational level, number of other children). Recruiters invite potential participants to join the group discussion, tell them when and where the discussion will be held, and leave a reminder card.

More than six to eight participants for each FGD need to be recruited to end up with this number. How many more is learned on the basis of previous experience or the experience of the first few FGDs. Depending on the population density and the stringency of the selection criteria, recruitment may be a time-consuming process. In some situations, the research team may have to provide transportation for the participants.

Develop Question Guides. A generic guide can be developed for all groups, with variations specified for the different types of participants as needed. FGD guides are usually just a listing of topics to cover and the type of technique that will be used to stimulate discussion on the topic. Or the guide may contain a small number of essential questions in association with some concepts for possible probing, depending on the discussion. Appendix D contains some sample guides, including ones in three columns which list general concepts, key questions to ask, and possible probing questions or topics.

Topics listed should be determined on the basis of remaining issues that the research up to this point has not found a clear answer to. The research team may still need to resolve questions on the specific behavioral recommendations; what are the best appeals of the messages that tap into immediate benefits as well as highly esteemed cultural values; what is the best way (through messages or through an activity outside of communications such as changing hospital norms) to overcome the most difficult resistances. For example:

- What are the discussants' images of breastfeeding and women breastfeeding; of mothers giving supplements; of bottles; of insufficient milk; of milk quality?

- What specific behavior changes were successful in trials or were not practical to test in trials? What do they like/not like about ideas, practices? Who would be the most believable sources of this information?

Question guides should either be formally pre-tested in one or two discussions and/or should be modified during the process on the basis of completed discussions.

Training and Practice. Training for moderators and notetakers should:

- introduce and discuss the purpose and objectives of the FGD;

- review the results of the previous stages of the research;

- review recruitment procedures;

- introduce and teach the techniques of moderating and notetaking;

- provide practice in coordinating discussions and analyzing results; and,

- supervise practice sessions first in the classroom and then in nearby locales.

Moderators should practice the following techniques and routine steps:

- *Introduction of the participants to the process.* The moderator introduces him/herself and the notetaker to the group and explains their roles; asks for the names of all participants and tries to remember them so she/he can call each person by name; explains that the object of the meeting is to get participants' help in designing an educational program to improve family life; explains that every person's opinions are wanted, so participants should say what they think but speak one at a time; and, stresses that there are no right or wrong answers.

- *Consulting the question guide* for the areas of inquiry and the techniques to use to stimulate discussion.

- *Clarifying an answer.* After a question has been answered by a participant, the moderator should use that response to ask for clarification or further explanation. For example, "Please tell me what it means when Mrs. Sani says she..."

- *Substitution.* The words of one of the participants should be used to rephrase an original question. However, care should be taken not to change the meaning of the question.

- *Polling.* This technique will help enliven a discussion or turn the group's attention away from someone who may be dominating the discussion. The moderator asks each participant individually to express an opinion. But remember that the object is to have a discussion among participants, not an in-depth interview with each participant.

- *Contrasting.* After polling the participants or during the course of conversation, there may be times when different opinions or practices are mentioned for the same problem or situation. The moderator should diplomatically draw out the differences and ask the group's opinion.

- *Asking why.* The FGD is not just another way to do a survey. The moderator's job is to generate a discussion that will highlight breastfeeding practices, perceptions, and the reasons for the practices and perceptions.

- Projective techniques. Use photographs or pictures to elicit group reactions and discussion. Begin a story about a mother and baby and let the group complete it.

- *Concluding remarks.* At the end of the session, the moderator should ask participants what they think about what was discussed and if they have any additional comments. Often, when participants see that the session is over, they begin to speak more frankly than they did during the session.

Although discussions are usually taped, a notetaker should be trained to:

- observe and record the group dynamics and other subtle reactions and interactions that might be of interest for the analysis;

- assist the moderator by recording background information on participants; and,

- develop a system for identifying all the participants and attributing their remarks.

Hold the Discussions

The group session should be held in a place where the participants will feel comfortable to converse candidly. It should be a place that is neutral for the participants and the moderators. For example, it is not a good idea to discuss health-related topics in the health clinic or in the home of the mothers' club president. A school or village gathering place would be better.

The discussion usually lasts one to two hours. The moderator first introduces the participants to the process and requests permission to use the tape recorder. The discussion begins with the moderator asking a question or making a statement to stimulate discussion. The moderator participates from time to time to direct the conversation, to involve people who are not talking,

or to draw out a difference of opinion or the reasons for certain feeding practices. Otherwise, the participants talk and question each other.

To facilitate honest responses that reflect deeper feelings than those often expressed for direct questions, projective and other techniques should be considered. For example, photos of various classes of women breastfeeding might be shown to stimulate comments on the image of typical mothers who breastfeed.

Serving a snack can break up the discussion, if the moderator feels there is too much fatigue or tension, or can conclude the session and encourage informal discussion. It may be appropriate for the research team to provide a transportation allowance or small gift (often food or soap) for participants.

Analyze the Results of the Discussions

After each FGD, the moderator and note-taker should:

- *Complete notes of the session.*
- *Transcribe the taped discussions.* It is best to do this soon after the discussion takes place. Decide ahead of time whether verbatim transcriptions are needed, or just extensive notes with a few verbatims inserted.
- *Summarize each session.* Write a brief description of the group, summarize the major points by theme or topic, and include relevant quotes to illustrate the point of view expressed. Furthermore, analysis is often easier if these summaries are put on notecards or separate sheets of paper. Note that themes are not the same as questions from the guide. One question may bring out ideas on many themes, or one theme may include responses made to several questions. Some themes may be listed prior to conducting the FGDs, but others will be identified during analysis, based on the issues that receive a lot of attention from the groups. For example, in Nigeria, both mothers and fathers often mentioned that a "good parent" is someone who has time to spend with the child. In Pakistan, the need for breastfeeding mothers to eat "pure foods" was stressed by FGD participants. Moderators needed to clarify what was meant by this term and why this was such an important theme.
- *Make any necessary revisions* to the question guide or approach to take into account new issues that have been raised and require further investigation.

Once the group discussions are complete, it is time to summarize across groups and look for trends or important differences.

- *Finish analyzing the transcripts* for content and summarizing each theme on a separate page. Note any relevant facts about the group or the participants.
- *Code the summaries* of the themes using colored markers or symbols to indicate where the information is from and the type of participant. Highlight key words or phrases.

- *Make summaries* that indicate the major points made on each topic and where there was consensus or difference of opinion. Remember that this is not a quantitative content analysis, and there is no need to count the number of people who expressed a particular opinion. Trends and interesting points that arise in the group should be highlighted.

- *List special vocabulary* or unusual phrases used. Leave plenty of direct quotes in the content summary.

- Pull together all of the summaries for each type of participant, such as working mothers. Summarize the similarities and differences noted within the working mother category. Are there differences between rural and urban mothers or do they share general perceptions of their difficulties, rewards, and prospects for improving practices? The objective here is to emphasize the similarities, but also note any important differences among the groups studied.

- Finally, *analyze different population segments* (such as regions or ethnic groups) to develop a profile of the entire population. Again, look for similarities and highlight differences only when they seem relevant to program design.

Write a Summary Report on the Discussions

The summary report should include:

- a brief description of the methods;

- a summary of each topic, differentiating concepts and perceptions by population segment (fathers, working mothers, etc.) and unit (urban, highlands, etc.); and

- conclusions that answer the following questions:
  - How prevalent are the practices that were identified during the problem identification period in other communities?
  - How appropriate are the proposed changes that were successful in the trials, and are they likely to be adopted in other communities? How must they be modified?
  - Are there important motivational or lifestyle factors that have not been accounted for?
  - Are there any additional top-of-the-mind resistances to the new practices?
  - What do health providers and other likely "change agents" for the educational program think about the recommendations?
  - What are the general, underlying lifestyle characteristics that can be used to position improved breastfeeding practices? What do people desire for their children? To do well in school? To be a well respected member of the community? To follow traditions? To be strong? Able to help with farm work?

Analysis and Synthesis

It is now time to move from the findings and insights from the formative research to developing the actual behavior change strategy. All the information collected during the preceding steps should be analyzed and synthesized and then presented in a way that facilitates strategy development.

Review Research Findings

At this stage it is critical to go back to each report (the review of existing information, exploratory research, TIPS, and checking research) to review the findings and conclusions and pull the information together. Since learning from the research is cumulative, the conclusions arrived at early may change in later research steps. At this point, it is informative to compare the results of the qualitative work with results obtained from quantitative surveys reviewed in the literature search to see if new research findings support or conflict with other studies. Although an eye is kept at all times on filling the gaps in the existing literature, it is at this point that it is easiest to assess the contribution of this work to the body of knowledge on breastfeeding in the country.

In writing the report, it is best to work with a maximum of three people who are extremely familiar with the qualitative research performed. The research director should appoint any other writers. The task at hand is not complicated but it must be done thoroughly and with program design in mind. First, draw up an outline and then review the summaries of each phase to select pieces that are relevant to program design for each section of the outline.

Write the Final Report

In general, it is quicker and easier to write (and read) the final report if each section lists key findings and then provides the implications of those findings for the program.

The report should contain the following:

- A brief, two-to-three-page summary of the research procedure.
- A description of the lifestyle context in which the target audience lives. This can include, for example: general outlook on life, outlook on maternal or child-caring roles, aspirations for children, knowledge of biomedical and other health and nutrition concepts, utilization of government and private-sector health care facilities, household composition, income, mothers' work, literacy levels, and access to information, including participation in groups and access to mass media.
- A description of the current child nutrition and health situation and breastfeeding practices. Most of this information will come from the in-depth interviews. It should summarize the nutritional and health status for each mothers' and children's segment. It reviews pregnancy, breastfeeding practices, the introduction of feeding practices during or after illness. Each group's subsection should conclude with an interpretation of the information, the extent to which it supports or conflicts with findings from previous studies, and what major problems should be tackled in the program strategy. Any other

factors that should be emphasized in the communications program or any important authority figures are also noted.

- A concise description of possible practice changes, motivations and resistances. This information will come primarily from the TIPS and the FGDs. Again, it is organized by audience segment (the ones being recommended for use in the communications program). Each of the behavior changes that the program will recommend are listed by segment and the results of the trials are summarized.

- A concise recap of all the conclusions from the research. This is a list against which the content of all of the communication materials developed for the program will be judged.

Because this report will be the bridge to the program, it should be easy to use. As the creative groups write a strategy and design materials and media plans, the program manager must constantly refer to this research document to be sure that the creative materials conform. A great deal of care and time went into the research, so program managers should be disciplined to seriously consider research findings in all program decisions.

Chapter Three: FORMULATING A PROJECT STRATEGY

As mentioned above, the formative research process described in this guide provides essential information not only for designing a program's communications component but also for other essential components. For example:

- If premature supplementation occurs because many urban women cannot breastfeed during their work day, part of the strategy might be: to advocate for legislation that requires day care facilities and nursing breaks in large enterprises; to advocate for enforcement of existing laws; or, to support community child-care schemes that respect breastfeeding.

- If infant formula companies continue to flaunt international agreements on promotion practices, new legislation and/or enforcement may need to be part of the overall breastfeeding promotion strategy.

- In several Latin American countries, families covered by the social security program receive a supply of powdered milk during a baby's first year of life. Breastfeeding promotion strategies might well include advocacy to modify this "benefit."

- Where health facility practices hinder appropriate initiation of breastfeeding, it is necessary to intervene in facility norms, and in training, motivation, and supervision of health personnel to promote appropriate breastfeeding practices.

- Where promotion of ORS has introduced the notion that infants need a lot of water to avoid becoming dehydrated, the breastfeeding promotion effort may need to request that the diarrheal disease control program modify its messages to avoid encouraging giving water unnecessarily during the first six months.

In sum, what the formative research process described in this guide does is help planners develop a set of behaviors that will improve child health and that are feasible for people to accept and carry out, as well as strategies for achieving them. While the program strategy may focus on communication to improve practices, it will also have other components, some of which will have to be implemented in collaboration with various public and private organizations and groups, to remove barriers to improved practices.

Many programs have found it extremely useful, at the end of the formative research, to organize a strategy formulation workshop. Key people from the public and private sector who are expected to be involved in program implementation, as well as a limited number of technical experts, should be invited. At the workshop, the formative research process and results should be presented. Then the participants should be invited to design an overall program strategy. Subgroups can start to develop the strategies for individual components, such as communications.

A useful format for the overall strategy is a grid. The first column lists the target audiences. These might include political leaders, health staff, various categories of mothers, fathers, etc. The next three columns analyze the behavioral objectives. The first is the current practice, the next is the technically ideal practice, and the third is the feasible practice that the program will

advocate. The last several columns list the various project components that will support uptake of the recommended practice. These components might include communications, modifications in health services, training, policy/legislation, etc. The following table provides a listing of many of these potential program actions.

Target Audience	Current Practices	Ideal Practices	Feasible Practices	Communication Activities	Change Institutional Norms	Training	Organize Mother-Support/ Day Care	Policy/ Legislation

Next, a more detailed strategy for each component can then be developed. For communications, the grid starts with the target group. The next section describes the messages -- behavioral contents, motivations/appeals, principal barriers/resistances (personal or community) and what the message will do to combat them, and the authority figure. Finally, a section on media has columns for recommended media and the format for each. Some example of program strategy grids are found in Appendix E.

Target Audience	Message			Authority Figure	Media (radio, TV, posters, drama, counseling aids, etc.)
	Behavioral Content	Motivation/ Appeal	Resistances to Address		

After the workshop, the program coordinating team can refine these strategies and then convert them into work plans.

At this point, the program is ready to begin program implementation -- training, materials development, etc. Descriptions of programs and program communication materials are reviewed in a number of publications listed in the bibliography below.

Strategy Framework for Promoting Improved Breastfeeding Practices

POLICY
- Hold policy workshop to sensitize decision makers to problems and solutions
- Draft and implement a National Breastfeeding Policy
- Write/revise labor and maternity laws, e.g., laws that support free or subsidized milk to some families (e.g., new mothers eligible for social security benefits)
- Adopt WHO's *International Code of Marketing of Breast-milk Substitutes*
- Develop norms for maternal and child health institutions

ADMINISTRATIVE
- Designate a national breastfeeding coordinator
- Form a national breastfeeding committee
- Include breastfeeding indicators in national data collection and statistics
- Develop a national breastfeeding plan
- Include resources for breastfeeding support in MOH budgets

INSTITUTIONAL/FORMAL HEALTH STRUCTURE
- Develop a training strategy
- Update pre-service curricula
- Provide in-service training for health workers on new norms, recommended breastfeeding practices, and how to counsel
- Update/create reference materials for service providers
- Restructure physical layout of maternities
- Revise hospital and clinic norms for infant and young child feeding (and support new norms through training, monitoring, and supervision)
- Develop a "model maternity"
- Create a lactation management education center
- Integrate breastfeeding into all appropriate health divisions: nutrition, diarrheal disease control, acute respiratory illness control, family planning, etc.
- Develop a continuing education program or update service for health care workers that could include periodic radio programs

COMMUNITY
- Conduct a communication program using mass and interpersonal media to promote specific behavior changes
- Orient community leaders and traditional health care providers to promote recommended practices
- Create, train, and support mother support groups or peer counselors
- Develop materials suitable for mothers
- Train traditional health providers and traditional midwives
- Build on existing community group and networks to provide breastfeeding information and support
- Assist employers in creating mother-friendly workplaces
- Work with rural cooperatives to develop products that would enhance positive breastfeeding practices, such as a new baby carrier or a blouse for working breastfeeding women.

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APPENDICES

Appendix A
SUMMARIES OF FORMATIVE RESEARCH STUDIES ON BREASTFEEDING[1]

1. UGANDA

The Uganda Ministry of Health's (MOH) interest in developing programs to address nutritional and growth problems led to an in-depth study of infant feeding practices from March to May 1993. The study was conducted by the MOH's Child Health and Development Center and Wellstart International's Expanded Promotion of Breastfeeding (EPB) Program, with funding from the U.S. Agency for International Development (USAID). Five sites representing potentially different infant feeding patterns were included: the capital city of Kampala, plus the districts of Apac, Luwero, Mbarara, and Mbale. Information was gathered principally through focus group discussions (FGDs) and interviews with key informants. The group of primary interest was mothers of children under one year of age, although FGDs with fathers and grandmothers were also held.

Breastfeeding is positively regarded in Uganda, and there are many good breastfeeding practices. Women expect to breastfeed, and nearly all women initiate breastfeeding. Mothers believe that young infants can be well nourished on breastmilk alone. Feeding bottles are not commonly used, except among urban wage-earning women. Duration of breastfeeding is also good: the great majority of children are given breastmilk throughout their first year of life.

Nonetheless, there are other practices that fall short of optimal:

- Giving prelacteal feeds (water or other liquids or foods to the neonate) is nearly universal outside of the Northern district of Apac.
- The first breastfeed after birth is sometimes delayed for one to two days.
- In Apac and some communities in Luwero, colostrum is considered harmful and is discarded.
- Although mothers believe that an infant can be well nourished on breastmilk alone, the duration of exclusive breastfeeding is often not long enough. It appears that health providers recommend supplementation at three months, and, moreover, that mothers feel that they don't have enough milk after that time to continue exclusive breastfeeding.
- There is, however, tremendous variation in the age at which supplementation begins. Early supplementation is a problem, but late supplementation is also a problem, with some children still exclusively breastfeeding at one year of age.
- There are some indications that frequency and duration of feeds may not be sufficient, although this would have to be confirmed by careful and observational study.

[1]Most of these summaries are extracted from the original EPB reports listed in Section II of the bibliography.

- Because mothers believe that frequent suckling depletes their milk supply, when they feel that their milk supply is diminishing, they give supplements. This in turn causes their infants to suckle less frequently, thereby resulting in a further diminution in milk supply.

- There is a common belief that breastmilk can spoil and that such milk is not suitable for consumption. In these cases, the child is prematurely and abruptly weaned.

- Breastfeeding is stopped abruptly when the mother learns she is again pregnant, thereby causing a nutritional and emotional shock to the child.

It appears that traditional practices are closer to the ideal than current ones. For example, grandmothers indicate that they breastfed exclusively for a longer period of time than mothers do now. Since some detrimental practices may not yet be firmly entrenched, actions taken now may reverse them with relative ease. Since breastfeeding is an established part of Ugandan culture, general slogans along the lines of "breast is best" will have little impact. What is needed are messages designed to overcome the specific feeding behaviors and beliefs, using culturally acceptable means of doing so.

Because of the rural nature of Uganda's populace, the limited reach of mass media, and low levels of literacy, any communication strategy developed will have to be largely community-based. People are anxious to talk and learn about health issues. Men are surprisingly interested in issues of child health and feeding, as well as family planning, and may be willing to assume a greater role in these areas if given relevant information and specific suggestions on what actions they can take. There are community structures in place that show promise as vehicles for a communication program. However, it is essential that the community component be accompanied by training of health providers at the district and community level. They need to have (and know how to communicate) correct infant feeding information, and know how to handle breastfeeding problems. The advice given by medical personnel is influential, and the misinformation they give to mothers has contributed to the decline of the period of exclusive breastfeeding.

2. Chikwawa District, MALAWI

The supplementation of breastmilk, even with water, during the first four to six months of a child's life has been shown to substantially increase the risk of diarrhoeal disease, and to lead to a reduction in the infant's breastmilk intake (and thus to reduced amounts of maternal antibodies). Supplemented infants have been shown to suckle with less frequency and intensity than non-supplemented infants, which ultimately results in decreased maternal milk output and increased probability of early weaning. It also hastens the chances of a mother becoming pregnant again and is wasteful of food needed by other family members.

An in-depth study of 81 women in four villages in Chikwawa district was conducted during October and November 1992, using anthropological and demographic techniques. The study found that virtually no mothers breastfed exclusively for any period of time. It appears that all give water from the first few days of life. Furthermore, three quarters were giving *phala* (a watery maize porridge) to their children before four months of age. About one quarter of infants were given *phala* during the first month of life.

Phala was said to be given in response to the infant crying, although observational work indicated that *phala* was not given immediately after crying episodes but rather at meal times, when it was a specific and integral part of child care. The very early giving of *phala* found in recent surveys is connected with the drought, which has resulted in mothers questioning their ability to lactate successfully and to produce enough milk to feed their infants. Mothers frequently talked of their own milk being insufficient or said that even women who are moderately malnourished are incapable of producing enough milk for their infants. The distribution of free food at many health centers to pregnant and lactating women with children less than four months of age may reinforce the erroneous view that women have insufficient milk because they are not eating enough.

Although maternal nutritional status needs to be studied further, it appears that women in this sample are sufficiently well nourished even during this difficult year to adequately feed their children on breastmilk alone for the first four to six months of life, provided their breasts are sufficiently stimulated by frequent infant suckling. Exclusive breastfeeding should be encouraged by every level of health professional during any consultation as breastmilk is readily available, free and protects the child from infection and the mother from pregnancy and is an effective way to maximize food security.

3. Kibango and Gitarama Provinces, RWANDA

The Rwandan MOH and EPB carried out an assessment in April 1992 that looked at health facilities, policies, practices, and legal issues concerning infant feeding. The assessment revealed that many mothers are supplementing breastmilk with other liquids, a practice that is not only unnecessary but potentially dangerous. In addition, many health personnel were advising mothers to begin supplemental feeding at as early as two and three months, usually in the belief that mothers had "insufficient milk." Furthermore, in urban areas both mothers and health workers were supportive of the use of breastmilk substitutes. The assessment report recommended qualitative research which would provide information on how and why infant feeding decisions are made, and on channels for communicating with mothers and others involved in these decisions.

This study was undertaken by the Rwandan MOH in collaboration with EPB during July and August of 1993. It began with a review of background documents and other relevant studies. The fieldwork was conducted in the health regions of Gitarama in the central area of Kibango in the southeast part of the country. In each area, four sub-districts were selected, one of which was the urban commune. Data collection methods were as follows:

(1) The primary data collection method was 106 in-depth, semi-structured interviews: 73 interviews with mothers, sixteen with fathers, six with grandmothers, and eleven with traditional healers or traditional birth attendants.

(2) In each sub-district, the maternity ward of either the hospital (urban areas) or the health center was visited and brief interviews with postpartum women were conducted. Health personnel were occasionally interviewed as well.

(3) To obtain a general idea of the quantities and types of foods and liquids consumed, a 24-hour recall form was used for a subset of women.

(4) Full-day observations of eight mothers were carried out.

(5) Five FGDs were conducted to confirm reported feeding patterns and rationale for them.

(6) Interviews were carried out with "key informants" such as MOH personnel, USAID officials, United Nations Children's Fund (UNICEF) officials, and others.

Along with many positive practices, the study found a number of behaviors that needed to be modified:

- *Maternal diet.* Pregnant women reduce their food intake, and lactating women have many dietary restrictions. Some nursing mothers limit water, which is believed to dilute breast milk; avoid "hard" foods, which are believed to be detrimental to lactation; and limit fruits, which are believed to be mainly for children.

- *Postpartum.* Newborns are given water, and initiation of breastfeeding is often delayed six to twelve hours.

- *Demand feeding.* The practice of breastfeeding only "when the child cries" needs to be replaced by frequent feeding on demand and more frequent feeding of young infants (due to their small stomachs).

- *Timing of supplementary feeding.* Beliefs in insufficient milk, bad milk, and early weaning need to be addressed so that exclusive breastfeeding can practiced for six months.

- *Weaning diet.* Babies are often given liquid supplements (e.g. sorghum drink and diluted cow's milk) before six months (too early) and semi-solids at six to nine months (too late). There is also a strong belief that babies should not eat oils and other fats, which contributes to calorie-deficient diets.

- *Cessation of breastfeeding.* Abrupt weaning is widely practiced, particularly if a mother discovers she is pregnant again.

4. Kazakstan

From March to May 1994, the MOH of Kazakstan, Institute of Nutrition, and EPB collaborated on a qualitative study of infant feeding practices. The study relied principally on semi-structured, in-depth interviews with mothers, grandmothers, fathers, physicians, and nurses. Informants represented urban and rural areas and the two main ethnic groups: Kazaks and Russians.

Breastfeeding is a strong tradition in Kazakstan and is viewed positively. Nonetheless, health providers and mothers have an overriding concern with "insufficient milk." Kazaks attribute this problem to poor maternal diet and health. However, all cases of "insufficient milk" encountered in this study could be attributed to the specific *way* that breastfeeding was practiced. Breastfeeding practices in Kazakstan that impede successful lactation are:

- separation of mother and infant at birth
- delayed initiation of breastfeeding (from one to four days after birth)
- giving water from birth
- giving of prelacteal feeds
- rigidly scheduled rather than on-demand feeding
- no night feeds
- possibly short duration of feeds
- common use of pacifiers
- frequent use of bottles

Maternal milk supply is largely a function of infant demand; however, in Kazakstan the common recommendation for insufficient milk is increased supplementation rather than increased sucking, thereby exacerbating the problem. Mothers perceive that they have insufficient milk because of such reasons as their baby cries, their breasts seem soft, or they have difficulty expressing milk. Other beliefs that hinder optimal breastfeeding are the idea that breasts must be washed before feeds, that a mothers should stop breastfeeding when she becomes pregnant, that is dangerous for a mother and child to sleep together, and that milk can be "too fat" or "too watery" and needs to be adjusted through giving other liquids or foods.

Many of these ideas and practices are based on the old Soviet guidelines regarding child feeding and contradict current international standards that call for exclusive, on-demand breastfeeding for six months, with continuation of supplemented breastfeeding for at least one year. The old Soviet norms are reinforced through health staff training, maternity routines and physical layouts, literature and health education materials. Some mothers, fathers, and particularly grandmothers resist the official norms (especially scheduled feeds) and, in fact, advocate better breastfeeding practices than most health professionals. The popular resistance to counseling advice on breastfeeding has to some extent eroded health professionals' credibility.

The study revealed a great deal of information on which to base a strategy for improving breastfeeding practices in Kazakstan.

- **Policies.** New official policies on breastfeeding practices that are in line with international standards should be prepared, issued, and disseminated to health professionals and the public. Recommendations on the introduction of other liquids and semi-solids also need to be adjusted.

- **Training.** The health system's close contact with virtually all mothers provides a tremendous opportunity for promoting optimal breastfeeding, but unfortunately much advice contrary to establishing and maintaining good lactation is currently being given. Thorough pre-service and in-service training of all maternal and child health staff is needed. Training should not only teach the new norms but also the rationale for them. It should also include substantial practice in management of breastfeeding problems and in counseling skills.

- **Communication.** Communication should reinforce health professional's new training to improve their credibility. Both print materials and mass media should be used. Mothers should be reached principally through counseling by health staff and by print materials

(most mothers have at least a high school education), and this information should be legitimized through selective use of mass media. Fathers and grandmothers should be reached through the same media.

- **Message strategy.** A major theme for all target groups should be that on-demand, exclusive breastfeeding will resolve the problem of "insufficient milk" and give the baby all the nourishment *and liquid* that it needs for about the first six months of life. Messages for all should also reinforce the numerous advantages of optimal breastfeeding, including the fertility suppression benefit. For health workers, messages should emphasize the rationale for the new norms and the fact that they are the international standard. For mothers, fathers, and grandmothers, messages should emphasize that the new standards support the folk wisdom of older generations. It was originally hypothesized that fears of breastmilk contamination might prevent mothers from breastfeeding; however, no mother expressed concern about this.

5. SENEGAL

A qualitative study of breastfeeding was undertaken as the basis for developing strategies to improve infant feeding practices in Senegal. The study sites included four rural areas that encompass the five main ethnic groups in the country: Wolofs, Seres, Toucouleurs, Peuls, and Diolas. Mothers of infants were the main focus, but potential influencers -- fathers, grandmothers, religious and community leaders, as well as health personnel and traditional healers -- were included as well. The study was carried out in April and May of 1995 by SANAS and EPB, with USAID funding.

Infant Feeding Practices

The study examined breastfeeding and its social and economic context. Among all ethnic groups, breastfeeding is highly valued. Almost all women breastfeed, most for an adequate length of time. Although these practices need to be supported and maintained, others should be discouraged: giving of prelacteal feeds, discarding of colostrum, delay in initiating breastfeeding, giving of water, giving liquids or foods before between four and six months of age, and abrupt weaning. In response to women's perceived milk insufficiency, increased suckling should be promoted and supplementation discouraged. Women need to be reassured that more breastfeeding produces more milk, not less; that their milk is of good quality under all circumstances; and that it cannot spoil.

Maternal Conditions that Affect Infant Feeding

Women work very hard at home and the fields. They rarely rest: even during pregnancy they are expected to maintain their work load until the moment of delivery. At the same time, their diets are marginal, particularly during the rainy season. There is no augmentation of food intake during pregnancy, so woman give birth and breastfeed without having accumulated a store of nutrients. After giving birth, they have little time to recuperate and regain strength. This overall pattern of marginal dietary intake, coupled with heavy energy expenditures, threatens women's health.

Breastfeeding is a remarkably adaptive process, and women in almost all circumstances can breastfeed successfully; however, when a woman is marginally nourished, breastfeeding begins to draw from the mother's own nutritional stores. In Senegal, what is needed is community recognition that:

- During pregnancy, a woman's work burden should lessened;
- Women have increased nutritional needs during pregnancy, and their diets need to be improved during this period;
- A longer period of rest after delivery - a minimum of one week - is needed to give a mother a better chance of regaining her strength; and,
- Time is needed between the end of lactation and the subsequent pregnancy.

Health Providers

Interviews showed that health providers lack important knowledge on breastfeeding and that they pass on little information on breastfeeding *per se* to mothers. Almost all of the twenty providers interviewed felt that breastfeeding is something natural for all women and that no special counseling on breastfeeding was necessary. Most advise women to eat better during pregnancy, but few suggest that they decrease their work loads. Most providers do believe that colostrum should be given, but some consider it bad for the infant. Most believe that maternal milk is not available "until the milk comes in," and a significant minority believes this means waiting 24 hours or more before initiating breastfeeding. In the meantime, the vast majority counsel mothers to give sugar water to the infant.

The majority of providers have heard of exclusive breastfeeding, but only a minority believe that a child can be well nourished on breastmilk alone for three months. Most believe that water should be given to an infant from birth and that other food should be given at four months.

Health providers report that they frequently encounter complaints of insufficient milk, but very few counsel to feed more frequently to augment milk production. Most believe that the problem is due to a poor diet and excess of work. Some prescribe vitamins or medications.

Some providers insist that they have seen cases of spoiled or poor quality milk, although some say these are false problems. The majority say that they advise women to continue breastfeeding but also to supplement with a bottle. A minority advise cessation of breastfeeding.

Communication and Influencers

Few mass media reach rural women. Most household have a radio but many lack batteries or do not work, and typically the men take the radio and women have little access to it.

In all ethnic groups, the mother-in-law and other older women exert the greatest influence on infant feeding practices. Compared with health personnel, older women are more readily at hand and their advice has more credibility. Chiefs and religious leaders do not have a direct influence, but any efforts to improve women's work situation and diet will not succeed without their support.

6. Oyo and Osun States, NIGERIA

EPB is providing assistance to several non-governmental organizations (NGOs) to improve breastfeeding and child feeding practices in Nigeria. Wellstart contracted and worked with a research company to undertake formative research in rural and urban areas of Oyo and Osun states (southwest Nigeria) from April to June 1995 as the basis for planning activities to promote improved feeding practices. The following table summarizes the research methods used.

Method	Participants	General Topics
Six FGDs, using projective techniques (reacting to pictures, etc.)	Mothers of children less than two years of age	Images of breast and bottle feeding Perceived advantages and disadvantages Concepts of child health, development and feeding; Aspirations for the child Attitudes toward village health workers (VHWs) /community-based distributors (CBDs) Sources of guidance on infant feeding
Four FGDs	Grandmothers of children less than two years of age	Modern and traditional child feeding; constraints to changing practices Concepts/relationship of child health, development, and feeding practices Perceived role/influence of grandmother
Four FGDs	Fathers of children less than two years of age	Role of fathers in infant feeding Images of breast and bottle feeding Perceived advantages and disadvantages
Eight In-Depth Interviews	Program implementors (VHWs/traditional birth attendants (TBAs), CBDs)	Knowledge of appropriate infant feeding Understanding of how to communicate with mothers/counseling skills Motivations and constraints for providing information on infant feeding and motivating behavior change in the community
58 In-Depth Interviews and Trials of Improved Practices	Mothers of children aged zero to 24 months (see additional criteria and more specific age groups)	Willingness to try infant feeding practices (exclusive breastfeeding, fortification of pap, increased frequency/amount of breastmilk or foods, introduction of solid foods, etc.) Response to trials/perceived outcome Motivations and constraints for adoption of recommended feeding practices

Respondents generally have very positive attitudes towards breastfeeding, feeling it is the normal and natural way to feed a young baby. On-demand breastfeeding for two years or more is the norm. Still, the research revealed many problems. Urban mothers particularly felt that it was impossible to breastfeed exclusively. Most mothers introduced water, glucose water and traditional medicines to young babies, and a few urban mothers also gave formula. They did this because of "insufficient milk" or the positive images of these supplements (although formula itself generally has a negative image). Mothers not in contact with an active NGO health program tended to discard colostrum. At around four months, most mothers introduce thin maize pap which provides few calories or nutrients for the growing baby. Parents and even some health workers lack a good understanding of some aspects of breastfeeding and infant feeding.

The TIPS gave project planners many insights into feasible feeding behaviors and how to promote them. None of 28 children nine to 24 months old consumed sufficient calories in the 24-hour dietary recalls before the trials, but fifteen did at the end of the week-long trial. While most mothers rejected the idea of giving their babies thick pap, mothers were generally willing to add palm oil and several other available foods that are nutrient-rich. Mothers of younger babies were generally willing to cut out or at least reduce water and traditional medicines.

FGDs yielded useful information on images and concepts relevant to infant feeding. Breastfed babies were seen to be healthy, active, and robust. People thought that parents who were too "sophisticated" (i.e. not traditional) might not breastfeed and do the other things they needed to do for their babies' healthy and well-being.

On the basis of findings, a training and communications strategy was developed. Radio mini-dramas, longer video-taped dramas, and counseling aids, among other media, will be employed to improve feeding practices.

7. Jigawa State, NIGERIA

Wellstart/Nigeria also worked with a research group to conduct qualitative research in Jigawa State, a Muslim area in northeastern Nigeria. Twelve FGDs with mothers, fathers, and grandmothers; eighteen in-depth interviews with mothers; and four interviews with opinion leaders were conducted in four sites representative of the state.

Breastfeeding is generally seen as essential part of an infant's diet. After delivery, infants are usually introduced to breastmilk almost 'immediately'. The concept of 'immediately' is relative, however. In the urban area, it means within the first five hours of delivery, while in rural areas, it means the next day and, in some cases, a day or two later.

Exclusive breastfeeding is rarely practice, since the norm is to augment breastmilk with ordinary water from the beginning, irrespective of whether the baby is delivered in a hospital or at home. Some urban mothers add glucose to the water given to the child before breastmilk. However, in rural areas, a mixture of lead sediments, honey and date palm extract is the first fluid given to a child. The main reason given for this practice is the general belief that a newborn child is thirsty. Mothers do not know that late introduction breastmilk to the child could affect its flow.

Colostrum is still widely discarded due to the belief, especially in the rural areas, that it is bad and even capable of killing babies. On the other hand, exposure and regular contacts with health workers tend to have made urban mothers to realize the importance of colostrum to the child. Apart from being perceived as nutritive, it is also believed to be 'good' in the sense that it contains antibodies against possible infections. Grandmothers and TBAs emerged as the major groups pressuring mothers to discard colostrum.

Breastfeeding for the infant's first three months is largely practiced, albeit supplemented with water. Breastmilk is not perceived as having enough water to sustain the child, because people perceive a need for constant drinking of water to avoid dehydration in the arid climate. As the child grows older, breastmilk is supplemented mainly with millet or guinea corn pap (*koko*) with groundnut paste.

Generally speaking, completion of weaning takes place after one or one and half years, when the child is considered old enough to be weaned. Until then, most mothers claimed to breastfeed their children about five to seven times a day on average.

No spontaneous mention of problems associated with breastfeeding was recorded. However, upon prompting, breast abscess, 'bad' milk, nipple inversion and insufficient milk emerged as known problems, but none of the respondents claimed to have personally experienced any of them. Nevertheless, these occurrences are not generally perceived as concerns, since traditional methods of coping exist. Most mothers discontinue breastfeeding as soon as they discover that they are pregnant, for fear of harming the developing foetus.

Breastfeeding in public is widely frowned at. A nursing mother is expected to be modest by always covering herself with a veil if the need arises for her to breastfeed in public. Some fathers said they would be so embarrassed to see their wives breastfeeding 'openly' that they would not even mind their children being bottle fed to prevent such situations.

Feeding infant formula in bottles is done only by a few working mothers. But many mothers used feeding bottles for gruel (*koko*), i.e. pap or water, particularly when going out.

Traditional beliefs are still firmly held by many families in Jigawa. Illiterate grandmothers and rural mothers were also wary of telling the names or ages of their youngest children to total strangers for fear of them dying before their `time'. However, the literate urban respondents did not share this belief. In traditional rural families, a barber removes the young infant's uvula, which is believed to help the baby swallow easier.

Having children is usually a source of great joy to most parents. The belief that child care is the responsibility of the mother is still very strong among all community members, particularly among fathers. However, the research revealed that many fathers actively participate in such child-care tasks as bathing and feeding their children. In fact, it is now a thing of pride for a man to be involved in such roles.

On the whole, good food and cleanliness (i.e. general hygiene) were perceived as being essential for a child's good health, but poor hygiene was observed in many rural homes. Eating of foods like beans, meat, rice, and vegetables is generally believed to contribute to the healthy growth of an infant. In this regard, health workers were generally commended by mothers, who claimed to receive awareness/education at ante-natal clinics on the type of food to be given to an infant to aid its healthy growth. Interestingly, breastmilk was also perceived as being a component of 'good' food for the child, especially by the fathers and grandmothers.

Since purdah (the practice of confining married women to their homes) is still widely practiced, the program must design innovative ways of disseminating information. Home visits and radio are the two best channels for reaching these mothers. As mentioned, respondents also widely trust health personnel for giving reliable information on health issues relating to their children.

8. NICARAGUA

EPB consultants and MOH staff undertook a qualitative study of breastfeeding in urban and rural areas of two of ten health planning zones (Managua and Matagalpa) during the summer of 1995. The principal method used was twenty FGDs, but there were also TIPS involving 21 mothers and a small observational study of health education in MOH facilities. The objective was to gain more in-depth information on breastfeeding KAP (knowledge, attitudes, and practices), to prepare a communication strategy to promote improved breastfeeding practices.

Through the FGDs, researchers hoped to describe practices, attitudes, beliefs, and values related to optimal breastfeeding practices among grandmothers and mothers of children less than a year old: housewives who were breastfeeding predominantly or partially; women who work outside of the home; and first-time mothers. (So few mothers were exclusively breastfeeding that it was not practical to recruit groups of them.) The discussions also focused on identifying facilitating or inhibiting factors to optimal breastfeeding.

Staff of local health facilities recruited FGD participants. In Managua, twelve groups in three rural areas and three urban neighborhoods. In Matagalpa, eight groups were held in seven rural communities.

The findings indicated that among the study population, there exists a positive "culture of breastfeeding," but it does not include the concept of exclusive breastfeeding. In the city, and to a lesser extent in rural areas, people also place high value on bottle feeding and other liquid feeds for babies, which most mothers introduce shortly after childbirth. In the city (at two to three months) and in the countryside (at three to four months), mothers prematurely introduce other foods, believing that this will benefit both the baby and the mother. Mothers are unaware that they are able to increase their milk production simply by more frequent feeding and believe that to breastfeed better they would have to eat much better. For this reason, their perception of their own poor nutrition acts as a barrier to exclusive breastfeeding.

Working mothers, many of whom work in the informal sector, have devised various strategies to continue breastfeeding, including working at night, working part-time, and receiving permission to take breastfeeding breaks. Many urban grandmothers are actively involved in child care, although some mothers do not follow their advice. Fathers have little involvement in child feeding. They feel a sense of responsibility for purchasing food for their wives/companions and milk for the baby, but doing this in difficult because of lack of money.

Mothers said they receive a lot of advice in health facilities. Some follow it but others are confused by it.

The FGD findings indicate that the positive culture of breastfeeding should be reinforced, especially in the city, where it competes most directly with the culture of infant formula. Some important elements for messages to promote exclusive breastfeeding are: the argument that families should spend a little money on purchasing more food for the mother rather than a lot of money on infant formula and that mothers can have control over their breastmilk production. The understanding of mothers, fathers and grandmothers concerning mothers' diets needs to be changed. Messages need to be concrete, e.g., that the nursing mother needs to eat two extra

tortillas and drink a cup more at each meal. The findings indicate that messages must go beyond the advantages of breastfeeding, which is something mothers already know, and go more into how mothers can manage breastfeeding better.

Mothers' success in following the recommended practices in the behavioral trials (trials of improved practices (TIPS)) was quite mixed. The success rate was the following: eight of eleven stopped giving water, eight of eleven increased the number of breastfeeds and reduced the number of bottle feeds; seven of eight fed from both breasts on demand; three of six stopped giving watered-down fruit juice (*frescos*); zero of three extracted breastmilk; and zero of two stopped buying powdered milk and used the money to buy more food and drink for the mother. The trials yielded a great deal of information on the mothers' feelings on the benefits and difficulties in following the recommended practices.

In the observational study, a researcher observed counseling to mothers on infant or maternal health in five health centers or posts in Managua. It was observed that health staff gave mothers scant information or advice and that there was little or no dialogue. Some staff treated mothers discourteously. Group health education talks were given infrequently and were judged to be ineffective. In sum, health workers lack training, motivation, materials, and other support to be more effective educators/counselors, problems which any project that relies on them will have to address.

Appendix B
SAMPLE RESEARCH DESIGNS

Methods	Geographic/Ethnic Representation	Population Segments
Bazega Province, Burkina Faso: Infant Feeding		
FGDs	Four FGDs in each of four villages; each group to represent major religious and ethnic groups in approximate proportion to the whole population	*Fathers with at least three children, one under 36 months old and breastfeeding *Grandmothers *Experienced mothers--at least three children, the youngest under 36 months old and breastfeeding *First time mothers--with a child under 36 months old and breastfeeding
Cross sectional survey	Eight villages where program most active	Representative sample from each community
Kazakstan: Breastfeeding		
In-depth interviews	National capital (urban), traditional oblast (district), largely ethnic oblast, oblast with significant Muslim population	*109 mothers of children under eight months old *Fifteen grandmothers *Nineteen fathers * 65 doctors and nurses
Chikwawa District, Lower Shire Valley, Malawi: Breastfeeding		
In-depth interviews	Four villages within ten kilometers of health center and with a program VHW	81 women, 61 breastfeeding and twenty with recently weaning children
Focus group discussions	Same villages plus district level	Mothers Older women Men TBAs Traditional healers Health personnel
Observations	Same villages	Mothers with children less than four months old, some supplementing and some exclusively breastfeeding
Gitarama and Kibango Prefecture, Rwanda: Breastfeeding		
In-depth interviews	In each prefecture, three rural and one urban commune	73 mothers Sixteen fathers Six grandmothers Eleven traditional healers and birth attendants (106 total) Interviews with postpartum women in main health facilities
24-hour diet recall	Same	Subset of women interviewed at home
Full day feeding observations	Same	Eight of same mothers

Focus group discussions	Same	Five groups
Key informant interviews	National	MOH and donor health staff
Senegal: Infant Feeding		
In-depth interviews Group interviews Observations Women's daily activity recalls	Four regions representing the country five major ethnic groups	281 pregnant and breastfeeding mothers 99 older mothers 82 fathers 53 opinion leaders Five traditional healers
Oyo and Osun States, Nigeria: Infant Feeding		
Focus group discussions	Rural area, Oyo State Urban area, Osun State Two additional rural areas outside of reach of NGO health program added	Six groups of mothers with babies <24 months old Four groups of fathers Four groups of grandmothers
In-depth interviews	First two areas	Four Community Health Extension Workers Four VHWs/TBAs Four CBDs
Trials of improved practices (TIPS)	Two urban and two rural communities (different ones)	An average of ten mothers in each of six categories of babies' age (58 total)
Jigawa State, Nigeria: Breastfeeding		
Focus group discussions	Four sites varying from "urban" to very rural	Twelve total groups of literate and illiterate mothers, literate and illiterate fathers, and grandmothers
In-depth interviews	Same sites	*Six interviews of mothers of babies in each of three age categories: zero to five months, six to eleven months, twelve to 24 months (eighteen total) *22 total interviews of opinion leaders (government officials, village heads, women's leaders, and religious leaders)
Managua and Matagalpa health planning districts, Nicaragua: Breastfeeding		
Focus group discussions	Five rural and urban health center districts in Managua Five rural health center districts in Matagalpa	*fathers of babies less than one year (four FGDs) *mothers of babies less than six months (eight) (some groups separated by extent of breastfeeding) *grandmothers of babies less than six months (four) *first-time mothers of babies less than six months (two) *working mothers of babies less than six months (two)
Trials of improved practices (TIPS)	Three health center districts in Managua Two health center districts in Matagalpa	21 mothers of babies less than six months
Observational study of health education in health facilities	Five health centers and health posts in Managua district	Two days of observations of individual counseling and group health education in each health facility

Pakistan
National Formative Research on Breastfeeding

FOCUSED GROUP DISCUSSIONS

Mothers	URBAN				RURAL			Total
	(B) Upper Middle	(C) Lower Middle	(D) Poor	Sub-total	Non-Punjabi	Punjabi	Sub-total	
	–	2 Karachi	2 Rawalpindi 3 Peshawar	7	2 D.I. Khan (NWFP)	2 Outside R.pini 2 Outside Multan	6	13
Recently Married Women	1 Karachi	–	2 Lahore	3	–	2 Outside R.Y.Khan	2	5
Mother in-law	–	2 Rawalpindi	–	2	–	2 at/near Gujrat	2	4
Fathers	–	2 Lahore	–	2	–	–	–	2
								24

IN-DEPTH INTERVIEWS

HOUSEHOLD

Mothers	URBAN				RURAL			Total
	Upper Middle	Lower Middle	Poor	Sub-total	Non-Punjabi	Punjabi	Sub-total	
	5 Karachi 5 Lahore	5 Karachi 5 Lahore 5 Peshawar	5 Karachi 5 Quetta	35	6 D.I.Khan (NWFP)	6 Outside R.pindi 6 Outside Multan 5 Outside F.abad	23	58
Fathers	1 Lahore	5	5 Lahore	16	5 Outside Peshawar (NWFP)	5 Outside F.abad	10	26
								84

HEALTH PERSONNEL

Doctors	6 Karachi	6 Multan	6 Quetta	17	5 Rural (NWFP)	5 Outside R.pindi	10	27
LHVs	5 Peshawar	5 Multan	–	10	–	5 Outside R.pindi 5 Outside Faisalabad	10	20
Dais	–	5 R.pindi	5 Lahore	10	5 D.I. Khan (NWFP)	5 Outside Faisalabad	10	20
								67

Appendix C
SAMPLE RESEARCH METHODS AND TOPICS

The following chart shows the what methods were used for what principal topics related to breastfeeding in the formative research of various projects.

Project, Location, Research Method, Population Segment, Main Topic	Topics
Social Marketing of Vitamin A *West Sumatra, Indonesia* In-depth interviews with observations Mothers of Children less than five years of age Consumption of vitamin A-rich foods	Mothers' own health and relation to breastfeeding Breastfeeding initiation Breastfeeding habits (frequency, both breasts, etc.) Perceptions of breastmilk (quality, quantity, etc.) Observation guide during interviews
Social Marketing of Vitamin A *North East Thailand* FGDs, mothers of children less than three months of age Consumption of vitamin A-rich foods	Feelings about pregnancy/nursing Perceptions of their own health and relation to breastfeeding problems Aspirations/hopes for children Perceptions of foods (food sort) Colostrum Credibility of potential influencers Leisure habits and media credibility
The Weaning Project *Extreme Northern Province, Cameroon* FGDs, mothers of children less than three years of age Young child feeding	Breastfeeding Supplementation Sevrage (termination of weaning) Illness and relation to Breastfeeding Sources of information Problems/worries
Child Feeding Project *Bazega Province, Burkina Faso* FGDs, inexperienced mothers Young child feeding	Pregnant women's diet Initiation of breastfeeding Colostrum Exclusive breastfeeding Breastfeeding problems in first six months Supplementary foods Sevrage Infant illness and feeding Maternal nutrition Role of influencers Women's tasks/time
Pakistan *National breastfeeding study* FGDs, experienced mothers with an infant less than one year of age Breastfeeding	Feelings about motherhood, children Concepts of "good mother" (photo sort) Necessities for children of different ages Child feeding decisions (breastfeeding, use of other milks) Concepts of ideal advice-giver (photo sort) Attitudes/images of breastfeeding and bottle feeding (photo sort) Images of children and relation to feeding Breastfeeding/bottle feeding problems
Pakistan *National breastfeeding study* In-depth interviews, fathers of an infant less than one year old Breastfeeding	Roles in child care, advice-giving, food purchasing Colostrum Exclusive breastfeeding/supplementation Involvement in breastfeeding decisions Image/feelings of woman breastfeeding Sources of information on infant feeding Exposure/feelings about media

Pakistan *National breastfeeding study* In-depth interviews, doctors Breastfeeding	Involvement in deliveries Recommendations on infant feeding Colostrum, ritual feeds Supplementation Feeding recommendations during various illnesses Breastfeeding problems Breastfeeding mothers' diet Bottle feeding Reactions to ideal breastfeeding practices Media exposure
Nicaragua *Breastfeeding study* Focus group discussions, first-time mothers of babies less than six months, predominantly breastfeeding Breastfeeding	Attitudes and values related to breastmilk Problems with breastfeeding Reaction to concept of exclusive breastfeeding Mothers' sense of control Beliefs about how breastmilk is produced Relation between mothers' diet and breastfeeding Introduction of supplementary foods Attitudes and values related to other milks Role of influencers Media exposure
Nigeria *Oyo/Osun study of breastfeeding and child feeding* In-depth interview guide for several types of community health workers Feeding of children, birth to 24 months	Role in delivery of babies Breastfeeding practices in the community - Initiation - Breastfeeding in first four months - Supplementation KAP of health workers - Influencers on child feeding - Feeding of infants > four months - Feeding during child/mother illness - Mothers' diet during lactation - Role in giving nutrition advice
Generic FGD topic list on lactational amenorrhea method (LAM) (adapted from Haiti guide)	<u>Birth Intervals</u> Ideal interval and reasons Desirability of trying to control intervals Perceived (current and potential) control over birth intervals <u>Methods of Spacing</u> Knowledge and attitudes toward alternative means of spacing (delaying pregnancy) – traditional and modern Actual practices and reasons - respondents and peers Sources of help or advice on methods <u>Breastfeeding</u> Knowledge of relation of breastfeeding to delaying pregnancy (contributing to interval) Knowledge of relation of breastfeeding to menstrual cycle Degree to which women follow optimal breastfeeding practices and reasons – early initiation and feeding of colostrum, exclusive on-demand feeding for six months Sources of help or advice for breastfeeding problems or questions Attitudes and practices regarding supplements and bottles <u>LAM</u> Reactions to presentation of LAM criteria: ease of understanding, perceived ease or difficulty of using, desirability of using, preference for LAM compared to alternative spacing methods. Intention to use or not and reasons

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Appendix D
SAMPLE QUESTION GUIDES

1. Set of Question Guides from National Breastfeeding Study in Pakistan

IN-DEPTH INTERVIEW GUIDE FOR MOTHERS

Name of Interviewer: _____ Place: _____

Date of Interview: _____ Facility: _____

Time Started: _____ Time Ended: _____

Introduction

I am working on a project which is mainly concerned with infant health and nutrition in Pakistan. I thought you are the most resourceful person in this regard, because you have young children. I would appreciate it if you would talk with me. It won't take much of your time.

MOTHER'S IDENTIFICATION

1. Husband/family name: _____

2. Name of Respondent: _____

3. Name of your youngest child: _____
(child's name)

Please use this child's name in every question which refers to the child.

4. How old is he/she? _____ (Verify with recruitment sheet)

5. Who takes care of (name of child) _____ everyday?

[If the mother does]: Does anyone help you most of the time? [ ] Yes [ ] No

If YES: Who? _____

6. How many other children do you have? _____

7. What are their ages? _____

8. Who else lives with you in this household? [ ] Extended [ ] Nuclear

If NUCLEAR:

Do you have relatives who live near by? [ ] Yes [ ] No

9. To which ethnic group does your family belong? _____

10. What language do you speak at home? _____

LANGUAGE	UNDERSTAND	SPEAK	READ	WRITE

11. How many years of schooling/college did you complete? _____

Degree _____

Other than your schooling, have you learned a craft? [ ] Yes [ ] No

If YES; What? _____

Where learned? _____

HOUSEHOLD OBSERVATION SHEET

To Be Filled Out AFTER The Interview

During the Interview, Observe the Following:

FEEDING:

- Are feeding bottles in the house? [ ] Yes [ ] No
- Was the child bottle fed? [ ] Yes [ ] No
- Are there empty milk tins? [ ] Yes [ ] No
- Is there a milk tin with milk? [ ] Yes [ ] No
- Was the child breastfed? [ ] Yes [ ] No
- If YES, which breast was used? [ ] Left [ ] Right [ ] Both

(Make only tally mark (:) for each time the child was fed during the interview)

PREGNANCY PERIOD

1. When you were pregnant, did anyone examine you? [ ] Yes [ ] No

If YES:

Whom did you see? _____

Why? _____

_____

How often? _____

If NO:

Why? _____

_____

2. Did he/she tell you anything about feeding your newborn? [ ] Yes [ ] No

If YES: What? _____

If NO: Why not? _____

Did you ask anybody about child feeding? [ ] Yes [ ] No

If YES:

Who? _____

What advice? _____

If NO: Why? _____

_____

4. Before (name of child) _____ was born, did you decide how you would feed him/her?[ ] Yes [ ] No

If YES: What did you decide? [ ] Yes [ ] No

Why? _____

_____

IMMEDIATE POSTPARTUM PERIOD

5. Where did you deliver your baby? [ ] Home [ ] Hospital

6. Who assisted you? _____

7. Who else was present? _____

8. If delivered in the hospital, for how long did you stay after delivery?

_____

9. Now we will discuss how you fed the child in the first few hours after child's birth

Would you please try to recall what was given in the first three days to the child? (Begin immediately after birth and probe by blocks of hours and days).

What	When[2]	Mode (i.e. breastfeed, bottle, etc.)	QUANTITY		Who Gave	Why	Recommended by
			Amount	Frequency			
	First 3 hrs.						
	3 hrs. - half day						
	Last half - first day						
	Second day						
	Third day						

10. When did you first put the child to breast? (i.e., after how many hours or days)_____

11. Did you give the first milk? [ ] Yes [ ] No

If YES, why? _____

If NO, why not? _____. Go to question #14

12. Who told you to give the first milk? _____

13. Did anyone tell you not to feed the first milk? [ ] Yes [ ] No

If YES, who? _____

Why? _____

[2]In 24-hour period – Probe: 1) Breastfeeding frequency in day and night; 2) ghutti; 3) water; 4) gripe water; 5) ghee; 6) araq; 7) honey; 8) tea; 9) animal milk; and, 10) formula. Note: About mother's milk, ask for how long do you breastfeed the baby.

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14. Did you have any problems regarding the start of breastfeeding? [ ] Yes [ ] No

If YES, what? _____

_____

15. Did you get help for this problem? [ ] Yes [ ] No

If YES, from whom? _____

Why this person? _____

AFTER IMMEDIATE POSTPARTUM PERIOD -- SIX MONTHS

16. Now let's talk about how the baby was fed after these first few days. please think back from the first week through the first few months. (Proceed with the mother chronologically, filling the matrix as completely as possible.)

When	What	Mode (i.e. breast, bottle, etc.)	QUANTITY		WHY	Recommended By
			Amount	Frequency in 24 hrs.*		
First Month						
Second Month						
Third Month						
Fourth Month						
Fifth Month						
Sixth Month						

* (Probe: ghutti, water, gripe water, ghee, araq, honey tea, animal milk, formula , semi-solids.)

If mother did NOT mention breastfeeding, go to question #20.

17. If the mother mentioned breastfeeding:

18. Did you have any problem breastfeeding your child? [ ] Yes [ ] No

If YES, what? _____

19. What did you do to solve the problem? _____

20. If the mother did not mention other milks or semi-solids by the time the child was six months old, ask:

- Did you give your child other milks? [ ] Yes [ ] No

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What Type of Milk	When (How old was child)	Mode (i.e., bottle, cups, spoon, etc.)	QUANTITY		WHY	Recommended by
			Amount	Frequency		

21. Have you given (name of child) _____ semi-solid foods?

[ ] Yes [ ] No

If YES, when did you begin (i.e., How old was your child when you began?)

_____

22. Why did you begin giving (name of child) _____ solid foods?

23. Did anyone recommend it? [ ] Yes [ ] No

If YES, who? _____

24. When you began to introduce other milks, did you have any problems?

[ ] Yes [ ] No

If YES, what problems? _____

What did you do? _____

If YES or NO:

25. Did you see any benefits when you began to use the milk? [ ] Yes [ ] No

If YES, what? _____

If the mother is not breastfeeding, go to question #31.

If the mother is currently breastfeeding, continue.

26. Approximately, how many times do you breastfeed? (child's name) _____

Day? _____

Night? _____

27. Do you use both breasts when you breastfeed (child's name) _____
or do you use one breast more often?
[ ] Both breasts [ ] Favor one, which one? _____

28. How long do you usually feed (child's name) _____ on each breast?

_____

If YES, when? _____

Why? _____

_____

What do you do when you don't feel like breastfeeding? _____

_____

30. How long do you expect to breastfeed (child's name)? _____

If mother has more than one child ask:

31. How long did you breastfeed each child beginning with the eldest?

S. No.	CHILD	DURATION	WHY STOPPED
1.	(eldest)		
2.			
3.			
4.			
5.			
6.			

If the mother is not breastfeeding now:

- For how long did you breastfeed (child's name)? _____

Why did you stop? _____

Who recommended you stop? _____

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FEEDING DURING ILLNESS

32. Has (child's name) _____ ever been seriously ill with diarrhea?
[ ] Yes [ ] No

If YES, how many times? _____

If NO, go to question #33.

33. Has (child's name) _____ ever had a serious respiratory illness?
[ ] Yes [ ] No

If YES, how many times? _____

If NO, go to question #35.

34. During any of the times when your child was ill, did you change how you were breastfeeding? [ ] Yes[ ] No

If YES, for each episode when the breastfeeding practice was changed ask about:

DISEASES	CHANGED FREQUENCY		STOPPED	WHO RECOMMENDED	WHY
	INCREASED	DECREASED			
Diarrhea*: 1.					
2.					
3.					
Respiratory Illness 1.					
2.					
3.					

(Probe: Child's behavior and child's appetite.) (Probe about newborn jaundice and constipation)

* Type of diarrhea or perceived cause of diarrhea.

35. Have you lost a child? [ ] Yes [ ] No
If No, go to question #37.

If YES, how many? _____

If YES, were any not yet a year old? [ ] Yes [ ] No

If YES, what do you believe caused the death? _____

_____

36. Do you believe the cause could possibly have been due to how the baby was fed?
[ ] Yes [ ] No

If YES, why? _____

MATERNAL DIET

37. Now I would like to ask you some questions about yourself:

- After delivery, what and when did you drink/eat?

WHAT	WHEN	HOW MUCH (Fluid only)	WAS THIS WHAT YOU WANTED or WERE YOU JUST GIVEN IT
	First 3 hrs. (or first thing)		
	First half day		
	Last half day		
	Second day		
	Third day		

38. Were you kept from eating/drinking what you wanted? [ ] Yes [ ] No

If YES, what did you want? _____

Who prevented you? _____

Why were you prevented? _____

Did you follow this advice? (stop eating/drinking) [ ] Yes [ ] No

For how long? _____

39. Were you encouraged to eat/drink anything? [ ] Yes [ ] No

If YES, what? _____

Who encouraged you? _____

Why were you encouraged? _____
Did you follow this advice? [ ] Yes [ ] No

For how long? _____

40. While you were breastfeeding, do/did you eat anything extra or less or different from your routine diet?
[ ] Yes [ ] No

If YES:

WHAT	HOW DIFFERENT		STOPPED EATING	BEGAN EATING	WHY
	MORE	LESS			

41. What about drinking: Is/Was it different than normal (before pregnancy)?
[ ] Yes [ ] No

If YES:

WHAT	HOW DIFFERENT		STOPPED EATING	BEGAN EATING	WHY
	MORE	LESS			

41.a. Did you feel thirsty while you were breastfeeding? [ ] Yes [ ] No

If YES, what did you do about it? _____

Why? _____

BELIEFS

We have just finished discussing many things about how you have fed your baby. Now I would like to ask you a few more questions just to understand better a few things that we already discussed.

42. What do you think is the best to give a newborn to eat? _____

_____

Why? _____

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43. What is your opinion of the first milk that comes? _____

_____

Why? _____

43.a. If feeling is negative, ask: If you were told to give the baby this milk because it is goof for the baby's health, would you? [ ] Yes [ ] No

Who would you believe? _____

Probe:

	YES	NO	WHY?
Doctor			
Dai			
Mother-in-law			
Friend			
Husband			
Anyone Else			

44. For how long (up to what age) should babies be breastfed? _____

Why? _____

45. Is the duration of breastfeeding any different for boy or girl babies? [ ] Yes [ ] No

If YES, why? _____

_____

46. Let's say a mother of a two month old baby asks your opinion about the very best food for her baby. She has enough breastmilk and enough money to buy infant formula or fresh milk.

Which would you recommend as the best? (number them in order of preference, 1 being the highest)

[ ] Breastmilk
[ ] Infant Formula'
[ ] Fresh Milk
[ ] Other

Why? _____

_____

47. Show the mother the three photographs of the children. Ask:
How do you think each of these children was fed?

PHOTOS	WHY
1.	
2.	
3.	

48. Are there any circumstances when a baby should be only breastfed and not receive anything else such as water, etc? [ ] Yes [ ] No

If YES, when? _____

Why? _____

If NO, why? _____

49. A mother who was breastfeeding her baby stopped breastfeeding and began with another milk? Why do you think she did this? _____

_____

50. Is there any circumstance under which a mother should not breastfeed a baby?
[ ] Yes [ ] No

51. What do you think are the advantages/problems of breastfeeding/bottle feeding?

	ADVANTAGES	PROBLEMS/DISADVANTAGES
Breastfeeding		
Bottle feeding		

MOTHER'S ACTIVITIES

52. What did you do yesterday with your baby, from when you woke up until you slept and even during sleeping.

ACTIVITY	TIME	WHERE WAS CHILD	If NOT with Mother, with whom

(Probe about feeding in general and feeding at night)

53. Was this a usual day? [ ] Yes [ ] No

If NO, what was different about it? _____

_____

54. In comparison to your neighbors, do you think your work is heavier or more time consuming?
[ ] Yes [ ] No

Why? _____

_____

55. Was there any time of the day yesterday when you felt extremely tired?
[ ] Yes [ ] No

Did you feed the baby when you were tired? [ ] Yes [ ] No

If YES, what did you feed your baby? _____

COMMUNICATIONS

56. Have you talked to anyone if you had a question or worry about breastfeeding (name of child) _____
[ ] Yes [ ] No

If YES, who did you talk to? _____

What did you talk about? _____

_____

Did they advise you? [ ] Yes [ ] No

If YES, what did they advise you? _____

_____

What did you say? _____

_____

Did you follow the advise? [ ] Yes [ ] No

Why? _____

57. Specific to breastfeeding, who is the best person to talk to if you have a question or worry about breastfeeding?

PERSON	TOPIC	WHY THEM?

(Probe: Is there a different person for different circumstances or problems?)

58. When (name of youngest child) _____ was born, did you and your husband discuss which milk should be given to the newborn? [ ] Yes [ ] No

If NO, ask: Did you discuss it for any other child, for instance, for the first born?

If YES, what did you discuss?

Your opinion: _____

Your husband's opinion: _____

59. Did your husband ever talk to you about breastfeeding? [ ] Yes [ ] No

If YES, what? _____

60. Did your husband ever talk to you about:

	WHAT?
Breastfeeding	
Tin Milk	

61. Have you gone to any of the following regularly, i.e. six times in one year?

WHO/WHERE?	WHEN?	WHAT FOR?	HOW OFTEN IN ONE YEAR?
[ ] Doctor			
[ ] Nurse			
[ ] Lady Health Visitor (LHV)			
[ ] Homeopathic Doctor			
[ ] Hakim			
[ ] Dai			
[ ] Hospital			
[ ] Rural Health Center (RHC)			
[ ] Basic Health Unit (BHU)			
[ ] Maternal and Child Health (MCH) Clinic			
[ ] Dispensary			
[ ] Private Doctor			
[ ] Other			

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62. Does anyone in your family attend gatherings? [ ] Yes [ ] No

If YES:

WHO ATTENDS	WHAT TYPE OF MEETINGS	WHEN/HOW OFTEN

(Probe: Mosque, maglis (religious gathering), craft or skill training, children's school)

63. If we wanted to teach mothers about child's health, where can we find a group of mothers together (or where can we gather them? _____

_____

64. Please tell me if any of the following things are here in your household?
Write Y for YES.

NAME OF ITEMS	DO YOU HAVE IT		IS IT WORKING		DO YOU LOOK AT, LISTEN TO, READ IT		HOW OFTEN RECORD PER DAY & PER WEEK	TIME OF THE DAY MOTHERS PREFER	INFORMATION CONTENTS/ PROGRESS MOTHER PREFERS
	YES	NO	YES	NO	YES	NO			
Radio							Per Day: Per Week:		
Television							Per Day: Per Week:		
Newspaper							Per Day: Per Week:		
Magazines							Per Day: Per Week:		
Books							Per Day: Per Week:		
Booklets							Per Day: Per Week:		
Posters							Per Day: Per Week:		
Calendars							Per Day: Per Week:		
Others							Per Day: Per Week:		

65. Have you ever heard anything on the radio or seen anything on television about mothers and babies' health?
[ ] Yes [ ] No

If YES, where? Identify the source:

[ ] Radio

[ ] Television

[ ] Newspaper

Other: _____

66. For each source, ask:

MEDIA/CHANNEL	MESSAGE OR THEME	MOTHER'S OPINION OF ADVISE	ADVICE FOLLOWED? WHY/WHY NOT?

Thank you very much for your time. I have a leaflet about what to do when your child has diarrhea, and I would like to read it to you and leave it with you as a reminder.

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IN-DEPTH INTERVIEW GUIDE FOR FATHERS

Name of Interviewer: _____ Place: _____

Date of Interview: _____ Facility: _____

Time Started: _____ Time Ended: _____

INTRODUCTION

- My name is_____ and I am working on a project about infant health.
- I would like to ask you some questions to try to understand your opinion on certain things related to your children.
- At the end of our talk, I shall tell you about what we are planning to do with the results of this research.
- I will be taking some notes so that I can remember the information later.
- Do you have any questions before we start?

1. _____
2. _____
3. _____
4. _____

IDENTIFICATION:

Q1. What is your name? _____

Q2. How old are you? _____

Q3. How many children do you have? Their sex and ages?

Children			
[Boys]	Age	[Girls]	Age
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	

(If the youngest child is older than eighteen months. Thank respondent for his time and leave.)

Q4. What is the name of your youngest child? _____

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Q4. (Name of child) _____'s birth date: _____

[ ] Confirmed with birth certificate
[ ] Matches recruitment

from recruitment sheet [ ] well [ ] ill

Is _____ (name of child) well or ill today? [ ] well [ ] ill

Q5.. How old is your wife? _____

Q6. How long have you been married? _____

Q7. How long have you been living in this locality? _____

Probe: If greater than one year, where did you reside before? For how long?

Q8. What kind of work do you do? _____

Q9. What kind of work does your wife do? _____

Probe: Household work?
Gainful work: in the house? _____
Gainful work: outside the house? _____

Q10. Have you attended school? [ ] Yes [ ] No

If YES, how many years? _____

Q11. What languages do you speak, read and write?

Languages	Speak	Read	Write
at home:			

Probe: Urdu specially

Q12. Who else in your house speaks Urdu? _____

Can he/she read Urdu? [ ] Yes [ ] No

Can he/she write Urdu? [ ] Yes [ ] No

Now I would like to ask some questions about children's health?

Q13. Who is primarily responsible for the care of the young children in your house? _____

_____

_____

Q14. Who assists with the care of _____ (name of youngest child)?

Q15. Do/did you ever help with child care? [ ] Yes [ ] No

What type of help? _____

Do/did you feel you have/had another role besides what you just mentioned?
[ ] Yes [ ] No

Q16. Do/did you ever instruct the child's mother about how to care for the child?
[ ] Yes [ ] No

If YES, what do/did you say? _____

Does she follow your instructions? [ ] Yes [ ] No [ ] Sometimes

Can you give some examples? _____

_____

_____

Q17. Have you ever taken your child to then doctor when the child was sick?
[ ] Yes [ ] No

Why? _____

Probe: Any special reasons

Q18. Are you involved in any activity related to feeding the child? [ ] Yes [ ] No

Food purchasing? _____

Distribution? _____

Actual feeding? _____

What is your involvement? _____

Probe: Specifically, about food purchases of formula/milk/bottles, etc.

Q19. Where were you when _____ (name of the youngest child) was born? _____

Q20. Do you know what substance was given to the baby just after birth and after how long?

_____

Probe: Ghutti, etc. and who gave it and why?

	#1	#2	#3	#4
What?				
When?				
Who gave it?				
Why?				
Did father arrange this to be given?				

Q21. Are you aware that just after baby's birth, mother's milk is yellowish or different from then milk that comes after several days? [ ] Yes [ ] No [ ] Don't know

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What do you call it? _____

Q22. Was this milk given to _____ (name of youngest child) when he was born?
[ ] Yes [ ] No [ ] Don't know

Q23. Why or why not? _____

Q24. After the first few days, how _____ (name of youngest child) has been fed?

Time frames:
1) 0>1 month _____
2) 1>4 months _____
3) 4>6 months _____
4) 6>12 months _____

Probe: Water, breast, bottle, formula, other milks or liquids, introduction of semi-solids, etc.

If in Q24. the respondent mentions exclusivity of breastfeeding, ask:

Q25. When did you learn about the exclusivity of breast milk first? _____

_____

From where did you learn about it? _____

Q26. What is your opinion of breastfeeding? _____

_____

Q27. In your opinion, why do mothers decide not to breastfeed and give other milks?

_____

Q28. If the mother stops breastfeeding, which other milk(s) in you opinion is/are good?

_____

Why? _____

Q29. From whom did you learn about it first?

Probe: Interpersonal: who? _____

Mass communication: what? _____

Q30. In your view, is bottle feeding good for baby, or is it harmful?

[ ] Good [ ] Harmful [ ] Don't know

Why good or harmful? _____

_____

Q31. Did you ever talk with your wife about breastfeeding? [ ]Yes [ ] No

Probe: What?
Why/why not?

Q32. Have you ever seen your wife breastfeed? How does it make you feel? _____

_____

Probe: Good, ugly, no feelings, etc.

Q33. Would you be willing to talk to your wife about breastfeeding if you heard something about it and felt she did not know it? [ ] Yes [ ] No

If yes, probe for an example. _____

Q34. In your view, is there any relationship between infant suckling and women's figure?

Probe:	[ ] Negative	[ ] Positive	[ ] No relation
	Why?	Why?	
	How?	How?	

Q35. Where did you learn about this? _____

Q36. You have given me your opinion about suckling and women's figure and other aspects of breastfeeding. Do you feel like encouraging or discouraging your wife breastfeeding now and/or in the future?

Why? _____

Why not? _____

COMMUNICATION:

Q37. Have you talked to anyone if you had a question or worry about feeding _____ (name of youngest child)? [ ] Yes [ ] No

If YES: Who did you talk to? _____

What did you talk about? _____

Did they advise you? [ ] Yes [ ] No

What did you say? _____

Did you follow the advice? [ ] Yes [ ] No

Why? _____

Did you talk to your wife about it? [ ] Yes [ ] No

If YES, what did she say? _____

Q38. Do you see any of the following people regularly (at least every other month)?

WHO?	WHERE?	HOW OFTEN?
Doctor		
Hakim		
Homeopath		
Unqualified doctor		
Chemist/Pharmacist		
Peer/Faqir/Imam		
Other (specify) _____		

Q39. Please tell me if any of the following things are here in your household?

ITEM	IS IT WORKING?	DO YOU LISTEN, WATCH OR READ?
Radio		
Television		
Newspaper		
Magazines		
Books		
Booklets		
Posters		
Calendars		
Other (specify) _____		

Q40. Are there special times of day when:
The radio is turned on? What are they? _____
The television is turned on? What are they? _____

Q41. Please tell me how often you listen, watch, read and what do you prefer?

ITEM	HOW OFTEN? RECORD PER DAY AND PER WEEK	TIME OF DAY FATHER PREFERS	INFORMATION/PROGRAM CONTENTS FATHER PREFERS
Listen Radio	Per day: or per week:		
Watch T.V.	Per day: or per week:		
See Movies	Per day: or per week:		

Read Newspapers	Per day: or per week:		
Read Books	Per day: or per week:		
Read Booklet	Per day: or per week:		
Other	Per day: or per week:		

Q42. Have you ever heard anything on the radio or seen anything on television about mothers' and babies' health?

[ ] Yes [ ] No

If YES, where, identify the source:

[ ] Radio
[ ] Television
[ ] Newspaper
Other (specify): _____

For each source, ask:

a) What did it say? _____

b) What did you think of it? _____

c) Did you follow the advice? [ ] Yes [ ] No

Why or why not? _____

MEDIA CHANNEL	THEME OF MESSAGE	FATHERS' OPINION OF ADVICE	ADVICE FOLLOWED WHY? OR WHY NOT?

Finally, I would like to ask if you have any questions?

Thank you very much for your time and information.

IN-DEPTH INTERVIEW WITH DOCTORS

Name of Interviewer: _____ Place: _____

Date of Interview: _____ Facility: _____

Time Started: _____ Time Ended: _____

INTRODUCTION

I am working on a project about infant health and nutrition As you see many mothers for consultation about their young children, we would like to get your input on this sensitive and important issue.

I shall not be taking too much of your valuable time as I know your schedule is busy. If you allow me, I would like to ask you a few questions specifically about your experience pertaining to infant feeding.

IDENTIFICATION

Name: _____

Age: _____

Specialization: _____

How long working: _____ years/months

Place of work: _____

Marital Status: [ ] Married [ ] Unmarried

If married, ask:

How many children do you have? _____

Age of youngest child? _____ years/months

ATTITUDES AND PRACTICES

Q1. Have you ever been involved in delivering babies or assisting with deliveries?
[ ] Yes [ ] No (Skip to question 3)

Q2. If YES, do/did you recommend that anything be given to the baby immediately after birth? (Within the first hour or so)

What?	When?	Why?
1) _____	1) _____	1) _____
2) _____	2) _____	2) _____
3) _____	3) _____	3) _____
4) _____	4) _____	4) _____

(Probe about water)

Q3. According to your experience, what is the general practice of the parents/relatives regarding the first food to be given to the babies? and why?

_____

_____

3a. What is your opinion of this? Is it necessary to give it to the child?_____

_____

_____

3b. [If Dr. has a negative opinion about what was done] Have you tried to persuade families to change this practice?_____

_____

Q4. Do you usually recommend that anything be given to the baby while the mother's milk is coming in? (during the first day or two of life) [ ] Yes [ ] No

If Yes,

What?	When?	How much?	Why?
1) _____	1) _____	1) _____	1) _____
2) _____	2) _____	2) _____	2) _____
3) _____	3) _____	3) _____	3) _____

(Probe about water, if the doctor has not mentioned it)

If NO, why? _____

4a. In your opinion, after how much time should a mother start breastfeeding her newborn?

_____

_____

Q5. [If the doctor does not mention breastfeeding immediately after birth, ask] In your opinion, how long after birth should breastfeeding be initiated? _____

_____

Have you ever encouraged mothers to initiate breastfeeding their newborns? (Get details) _____

_____

_____

_____

_____

_____

Q6. What is your opinion of colostrum? _____

_____

Q7. [If doctor says it should not be given] For how long should the mother discard colostrum? How much should be discarded? _____

_____

Q8. Do you see many mothers who do not give colostrum to their newborns?

[ ] Yes [ ] No

If Yes, how many? (percentage approximately) _____

What is the reason? _____

Q9. What do you recommend that mothers feed their babies up to the time when the baby is four months old?

What?	When? (Child's age)	Why?
1) _____	1) _____	1) _____
2) _____	2) _____	2) _____
3) _____	3) _____	3) _____
4) _____	4) _____	4) _____

(Probe for water, glucose water, gripe water)

Q10. Have you ever seen a woman who hasn't given anything to her child, not even water, ghutti, during the first four months? [ ] Yes [ ] No

Q11. Let's suppose there is a mother who doesn't give anything to her child except for breastmilk for first four months, not even water. What problems and benefits will the child receive?

PROBLEMS	WHY?	BENEFITS	WHY?

Q12. Are there any circumstances under which you would recommend that a breastfeeding mother discontinue giving breastmilk to her child? [ ] Yes [ ] No

If yes, what are those circumstances? _____

_____

Q13. What is your opinion about the use of bottles for feeding young babies milk and other liquids?

Milk: _____

Other liquids: _____

Q14. Are there circumstances when you recommend using bottles? [ ] Yes [ ] No

If yes:

When/what conditions?	For what?	Why?
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

(Probe about mother's and child's condition)

Q15. In the case of breastfed infants up to the age of four months who are ill (diarrhea, respiratory problem, etc.), what changes in milk and fluids do you recommend?

Disease	Foods/drinks	If they change the food, also mark it	Same as usual WHY?	More than usual WHY?	Less than usual WHY?	Stopped WHY?
Diarrhea	Mother's milk Fluids 1. 2. 3. Foods 1. 2. 3.					
Respiratory Illness	Mother's milk Fluids 1. 2. 3. Foods 1. 2. 3.					
Cough	Mother's milk Fluids 1. 2. 3. Foods 1. 2. 3.					
Pneumonia	Mother's milk Fluids 1. 2. 3. Foods 1. 2. 3.					

Q16. Do breastfeeding mothers ever talk to you about any complaints/problems about breastfeeding?

[ ] Yes [ ] No

If yes, what are they and what do you recommend?

What?	Recommendation	Mother's Reaction

(Probes: cracked nipples, weak mother, child doesn't take breast, insufficient milk, infection in nipples)

Any other: _____

Q17. I have just talked to you about your recommendations about infant feeding. Now I would like to ask you about breastfeeding mothers. Do you recommend any special diet for breastfeeding mothers? [ ] Yes [ ] No

If yes, what?

Diet for Lactating Mother	How Much In Relation to Normal Diet		Why?
Foods	More	Less	
Drinks			

If no, why? _____

Q18. Do you find women follow your advice about eating? [ ] Yes [ ] No

If no, why not? _____

Q19. As you may have heard, bottle feeding is becoming quite popular in Pakistan. In your opinion, what could be the reasons? _____

Q20. Do you think doctors may have had a role in the increase in bottlefeeding? [ ] Yes [ ] No

If yes, how?

Use of bottle for drink:

Use of bottle for other fluids: _____

Q21. As you have a child _____ (months/years) old, would you be kind enough to recall what you baby was fed during the first three days:

Probe: colostrum, ghutti, breastmilk, formula

The Government of Pakistan has made a policy for promotion of breastfeeding. I want to discuss some of its points with you.

POLICY

POLICY	Will you ask patient to follow it?		WHY/WHY NOT?	Will your colleagues want to follow it?		WHY/WHY NOT?	HOW CAN WE CONVINCE THEM?
	YES	NO		YES	NO		
Put the child to breast within first hour after delivery							
Don't give the child anything to eat or drink, except for breastmilk up till four months, not even water							
In hospital, doctors and other health professionals will not receive any free milk samples, gifts, literature from formula milk companies							

COMMUNICATION

1. If we try to give information on issues like child health and breastfeeding to you, which way will you prefer?

   _____

   _____

   _____

2. If we want to give the information to LHVs all over Pakistan, what should we do?

   _____

   _____

   _____

3. Do you read any medical literature? [ ] Yes [ ] No

   If no, how do you keep your knowledge updated? _____

   _____

   _____

IN-DEPTH INTERVIEW GUIDE FOR LADY HEALTH VISITORS

Name of Interviewer: _____ Place: _____

Date of Interview: _____ Facility: _____

Time Started: _____ Time Ended: _____

Introduction

I am working on a project which is mainly concerned with infant health and nutrition in Pakistan. I thought you are the most resourceful person in this regard, because you see many young children and talk to their mothers. I would appreciate it if you would talk with me. It won't take much of your time.

IDENTIFICATION:

Name: _____

How long have you been working here? _____

Are you married? [ ] Yes [ ] No

If YES,

- How many children do you have? _____
- What is the age of your youngest child? _____

Now I would like to talk to you about newborns

Q1. Do you deliver babies? [ ] Yes [ ] No

- If NO, go to Q4

Q2. How many babies were delivered under your supervision in the past week?_____

Q3. For these newborns, what was their first food?_____

_____

- Did you recommend it? [ ] Yes [ ] No
- If NO, what did you recommend? _____
- Did the family/mother follow your recommendation? [ ] Yes [ ] No

Why? _____

Q4. Do you have many mothers who do not breastfeed their newborns?
[ ] Yes [ ] No

- In your opinion, is this a correct practice? [ ] Yes [ ] No
- If YES or NO, reason _____

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Q5. If LHV has children, did you breastfeed your children? [ ] Yes [ ] No

Q6. For mothers who breastfeed their newborn, when do you advise that they begin breastfeeding? _____

_____

- Why? _____
- Do they follow your advice? [ ] Yes [ ] No
- Why?/Why not? _____

Q7. In your experience, do mothers give colostrum to their children? [ ] Yes [ ] No

If NO: Then for how long, and how much of it do they discard? _____

_____

- What is your opinion of colostrum? _____

_____

_____

- Do you discuss colostrum with the women you see? [ ] Yes [ ] No
- What do you say? _____

_____

- Do you convince them about what to do? [ ] Yes [ ] No

Now I would like to talk to you about the breastfeeding practices of mothers with babies in the first four months of life.

Q8. How often per day do mothers usually put the infant to the breast?

_____

- In your opinion, is this frequency right? [ ] Yes [ ] No
- If NO: Then what should it be? _____
- Do mothers have problems feeding this many times? [ ] Yes [ ] No
- What are the problems? _____

_____

Q9. What do mothers do when they can't feed as frequently as they like?

_____

- What do you recommend? _____

Q10. Do you have some idea about how much time the infant is put to each breast?

_____

- In your opinion, is it the right amount of time? _____

Q11. Do you know any mothers who give only breastmilk to their babies? (that is, no water, no honey, etc.)

[ ] Yes [ ] No

- What is your opinion about this (giving only breastmilk for four months)?

_____

_____

- If opinion is positive: How long do you believe a baby could receive only breastmilk?

_____

Q12. Do breastfeeding mothers have any complaints about breastfeeding? [ ] Yes [ ] No

- If YES, what are they, what do you recommend and what is the mother's reaction?

Complaint	Recommendation	Reaction

If the LHV does not mention insufficient milk, ask:

- Have any mothers ever complained about not having enough milk for their baby?
  [ ] Yes [ ] No

- If YES: What have you recommended? _____

_____

- What has the mother's reaction been? _____

_____

Q13. What is the usual age of infants when mothers stop breastfeeding? _____

- What are the mother's reasons for stopping breastfeeding? _____

_____

Q14. In your opinion, what should be the right age to stop breastfeeding? _____

Now I would like to talk to you about infant feeding that is not breastfeeding.

Q15. Are there conditions that would prevent a baby from breastfeeding or being fed? [ ] Yes [ ] No

- If YES, what are they? _____

_____

(Probe: mother's and child's condition)

Q16. What is your opinion about milk formulas for young babies less than 4 months old?

_____

- Do you ever recommend this? [ ] Yes [ ] No

- If YES, when, why and what is the reaction of the mother?

When?	Why?	Reaction

Q17. What is your opinion about fresh milk for young babies less than four months old?

_____

_____

- Do you (ever) recommend fresh milk? [ ] Yes [ ] No

- If YES, when, why, and what is the mother's reaction?

When?	Why?	Reaction

Q18. What is your opinion about the use of bottles for feeding any fluid to the young baby less than four months old? _____

_____

- Do you recommend bottles? [ ] Yes [ ] No

- If YES, when, why and what is the reaction of the mother?

When?	Why?	Reaction

- How often are you asked about child feeding? _____

Q19. Does anybody ever come to you with questions about child feeding?

[ ] Yes [ ] No

- If YES, who and what do they ask?

Who?	Ask?

- How often are you asked about child feeding? _____

Q20. When you give advice on infant feeding, do you usually speak directly to the mother or do you ask to speak to the father or mother-in-law?

[ ] Mother only
[ ] also father
[ ] also mother-in-law

- Why? _____

_____

Q21. When you give advice to a mother, do you think she talks to others about it before following it?
[ ] Yes [ ] No

- If YES, who & why?

Who?	Why?

Now I would like to talk to you about a woman's diet after having had a baby.

Q22. We have been talking about feeding the normal baby. I would like to know if you think there should be any changes in feeding a baby who is ill? [ ] Yes [ ] No

- If YES: Let's discuss a baby under four months. How should the baby be fed during diarrhea and respiratory illness?

	Food/Drink	Same As Usual	More Than Usual	Less Than Usual	Stop
Diarrhea					
Respiratory Illness					

Probe: Breastfeeding

Q23. When the mother is ill: What do you recommend about breastfeeding?

_____

_____

- Why? _____

Q24. How do mothers usually eat after delivery?

[ ] more than usual
[ ] the same
[ ] less than usual

What is your opinion about this? _____

_____

Q25. Do you talk to women about their diet? [ ] Yes [ ] No

- If YES, what do you say? _____

_____

- Do the mothers feel they can follow your advice? [ ] Yes [ ] No
- Why/why not? _____

_____

Q26. What about fluids? Do mothers drink more, the same or less than usual following the birth of their child?

_____

Q27. What is your opinion about what they should do about fluids? _____

_____

Q28. Do you talk to women about what they should drink? [ ] Yes [ ] No

- If YES, what do you say? _____

_____

- Do mothers feel they can follow the advice? [ ] Yes [ ] No
- Why/why not? _____

_____

Finally, I would like to ask you about two more things: The Government of Pakistan is in the process of designing a policy on breastfeeding. I would like your opinion about two of the items:

Q29. Newborns should be put with the mother to suckle within the first hour of birth. What is your opinion?

_____

_____

- Could you follow this? [ ] Yes [ ] No
- Why/why not?

_____

_____

- Do you believe your colleagues would follow this? [ ] Yes [ ] No
- Why/why not? _____

_____

- How could they be convinced to follow this? _____

_____

Q30. Do not give any food or drink (even water) to infants lees than four months old other than breastmilk.

- Do you agree? [ ] Yes [ ] No
- Why/why not? _____

_____

- Would you recommend this? [ ] Yes [ ] No
- Why/why not? _____

_____

- Do you believe your colleagues would recommend this? [ ] Yes [ ] No
- Why/why not? _____

_____

- How could they be motivated to recommend this? _____

_____

IN-DEPTH INTERVIEW WITH TBAs

Name of Interviewer: _____ Place: _____

Date of Interview: _____ Facility: _____

Time Started: _____ Time Ended: _____

INTRODUCTION

I am working on a project which is mainly concerned with infant health and nutrition in Pakistan. I thought you are the most resourceful person in this regard, because you see many young children and talk to their mothers. I would appreciate it if you would talk with me. It won't take much of your time.

IDENTIFICATION

Name: _____

Occupation: Full time dai: _____
Other occupation plus dai: _____

Age: _____ Marital status: [ ] married [ ] unmarried

Number of children: _____ Age of youngest child: _____

For how long have you been working as a "dai"? _____

Who trained you? _____

Did you have formal training? [ ] Yes [ ] No

If yes, where? _____ For how long? _____

ATTITUDE AND PRACTICES

1. How many deliveries did you assist in the past month? _____

PREGNANCY PERIOD

2. Do you attend to women when they are pregnant or only at delivery?
   [ ] Pregnancy [ ] Only delivery (go to postpartum period, #6)

3. When you see a pregnant woman, do you give her advice about diet? [ ] Yes [ ] No

   If yes, what do you tell her to eat and drink during pregnancy? _____
   _____

4. Do you advise the pregnant women about what she should feed her newborn? [ ] Yes [ ] No

   If yes, what do you tell her to feed the newborn?
   - Right after birth (within the first 3 hours)? _____
   - During the first week? _____
   - Up to four months of age? _____

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5. Is there any food that a pregnant mother can eat to ensure good or plentiful milk after the baby is born?
[ ] Yes [ ] No

If yes, what? _____

What does it do? _____

POSTPARTUM PERIOD

You have a lot of experience with delivering babies, and I would like to learn from you about the newborn's feeding practices you recommend.

6. Please try to recall the very last birth you assisted. When was it? _____
_____

Did anyone ask you about what to feed the newborn? [ ] Yes [ ] No

If yes, what? _____

Who asked? _____

What did you recommend (or what do you usually recommend) for the baby to drink or eat during the first 2 hours? _____

Why did you recommend this? _____
_____

(If ghutti, honey, ghee and sugared water were not mentioned, ask:)

- Ghutti? _____
- Honey? _____
- Sugared water? _____
- Ghee? _____

If mother's first milk was not mentioned, ask:

Did you recommend that the baby should be given the mother's first milk (the yellow milk)?
[ ] Yes [ ] No

If yes, why? _____

If the answer is no, why? _____

What did you recommend the mother should do with the first milk? _____
_____

If the answer is discard/throw away, ask:

- How much? _____
- For how long? _____
- What should the baby be fed? _____
_____

7. We have been talking about your recommendations. Now I would like to know what the newborn actually eats or drinks right after birth? _____

If not mentioned yet, ask:

Food/Drink	How soon after birth?	How much?	How often in a day?	How often at night?	Who usually recommends or gives
Ghutti					
Honey					
Sugared water					
First milk (Colostrum)					
Other					

8. Who would you say is the person who has the greatest influence deciding what a newborn baby eats during the first few hours after birth? _____

INFANCY PERIOD

Now I would like to ask you about the slightly older baby.

9. What should a baby younger than four months eat and drink? _____
_____

If not mentioned, ask:

- Breastmilk [ ] Yes [ ] No
- Other milk [ ] Yes [ ] No
- Milk in bottle [ ] Yes [ ] No Why?
- Water [ ] Yes [ ] No
- Tea [ ] Yes [ ] No

10. Are there conditions that would prevent a baby from breastfeeding or being breastfed? [ ] Yes[ ] No

If yes, what are they? _____
Probe: mother and child's condition

Have you encountered these situations? [ ] Yes [ ] No

What do you advise the mother to do? _____

Why? _____

11. What should a baby older than four months eat? _____
_____
_____

If breastfeeding is not mentioned, ask about it.

[If dai mentioned breastfeeding] For how long/up to what age should a baby breastfeed?
_____

Why? _____

12. Do mothers have problems starting breastfeeding? [ ] Yes [ ] No

If yes, in most cases how long (hours, days) after birth do they have problems?

_____

What kind of problems do they usually have? _____

_____

_____

Do you help mothers solve their problems? [ ] Yes [ ] No

If yes, what do you do that seems to help mothers breastfeed? _____

_____

If no, why? _____

_____

13. Do breastfeeding mothers ever come to you with other breastfeeding complaints/problems?
[ ] Yes [ ] No

If yes, what are they, what do you recommend, what is the mother's reaction?

Problem	Recommend	Reaction

If the dai does not mention insufficient milk, ask:

Has any mother ever complained about not having enough milk for her baby? [ ] Yes [ ] No

If yes, what have you recommended? _____

_____

What have mothers said? _____

Are there any foods or drinks that help to increase the amount of mother's milk? [ ] Yes[ ] No
If yes, what? _____

How often do mothers come to you with questions on child feeding? _____

_____

14. What do you think about milk formulas for young babies, less than four months old?

_____

_____

Do you recommend them? [ ] Yes [ ] No

If yes, when, why, what does the mother say?

When	Why	Reaction

15. What is your opinion about the use of fresh milk for young babies less than four months old?

_____

_____

Do you ever recommend it? [ ] Yes [ ] No

If yes, when, why, what does the mother say?

When	Why	Reaction

16. What is your opinion about the use of bottles for young babies? _____

_____

_____

Do you recommend them for giving any kind of fluid? _____

_____

Why? _____

17. We have been talking about feeding a normal baby. Now I would like to know if you think there should be any changes in feeding a baby who is ill? [ ] Yes [ ] No

If yes, let's discuss a baby under four months. How should the baby be fed during:

	Food/Drink	Same as usual	More than usual	Less than usual	Stop
Diarrhea					
Respiratory Infection					

Probe: breastfeeding

Do you have any other recommendation for feeding an ill child? [ ] Yes [ ] No

If yes, what? _____

18. When the mother is ill, what do you recommend about breastfeeding? _____

_____

Why? _____

You have been most helpful. I have only a few more questions.

19. What do you think about putting the baby to the mother's breast within 1 hour of birth?

_____

_____

Why? _____

[If she agrees] How would you convince mothers that putting the baby to the breast within one hour is the best practice? _____

_____

20. What do you think about this: The baby should be fed only mother's milk for the first four months and nothing else, not even water? _____

_____

[If she agrees] How would you convince mothers that the only food or drink a baby needs up to 4 months is mother's milk and nothing else, not even water?

_____

_____

21. If dai has children: Would you mind telling me how you fed your youngest child during the first six months?

_____

_____

_____

Probe: First foods and breastfeeding

FGD GUIDE -- EXPERIENCED MOTHERS

TOPIC	DISCUSSION/TRANSITIONS	PROBES
Introduction	Facilitator and Observer names	
Topic of Interview	We would like to talk to you today about your children.	
No right or wrong answers	There are no right or wrong answers to any of the questions.	
Your opinions	We would just like to know about what you do normally and ask your opinions.	
Child Health project	We are working on a project about child health in Pakistan.	
Help other people like them	We would like to know your experiences and thoughts to help other families. After we are finished, we will tell you more about the project.	
Length of time of discussion	This discussion will take about an hour.	
Talking to one another	As we will be discussing many things among ourselves, it will be important that we not all talk at once because we will want to hear each other so we can talk together.	
Explain note-taking and tape recording	_____ (observer's name) will be writing down some of the things we talk about so we can remember them later. Also, we would like to use a tape recorder. Does anyone object?	
Confidentiality	We are the only ones who will know you and your baby's name and we will not use them in any written reports.	
Check understands	Do you understand what I have said?	
Clarification if needed	Do you have any questions?	
Women's Introduction (warm up)	Please introduce yourselves and as you do, tell us the name & age of your youngest child.	
Motherhood (establish emotional pulls)	As you all have young children, can you say something about how your child makes you feel?	- Happy, why? - Proud, why? - Tired, why? - Link to future - Aspirations
Good Mother (establish tone)	There are many things your children do that make you happy. Now I would like to shift to you, the mother. These are some pictures of women here in Pakistan (place photos so all can see). Please indicate one of these women that you believe is a good mother?	- What about her? - What about her care of child? - Why are others not good mothers?

TOPIC	DISCUSSION/TRANSITIONS	PROBES
Necessities for Children (different ages) (Place feeding among other needs)	Among us we have mothers with children of many different ages. Think of your youngest child and tell us: What was important for your baby right after birth?	- Ceremonies - Foods - Drinks - Why?
	What was important for your baby during the first month?	- Ceremonies - Food, drink
	What about in the next months up to six months	- Ceremonies - Development - Food, drink - Why started?
Child Feeding Decisions	Some of you mentioned breastmilk as important for a baby (may have to rephrase)	
- Breastfeeding	Who has breastfed their youngest child? Why did you breastfeed/why did you prefer breastfeeding? Who has influenced you decision to breastfeed?	- People and reasons influenced -- doctor, relatives (which), friends, husband.
- No breastfeeding	Has anyone not breastfed their baby? Why didn't you breastfeed (or if everyone breastfed) Why might a mother not breastfeed?	- People and reasons influenced
- Use of other milks	Earlier, some of you mentioned that young babies need milks other than breastmilk. Who among you is giving other milk to your youngest child? Why did you decide to do this?	- People and reasons influenced - Insufficient milk, what can be done, who knows. - How decided which milk to give? - Extent that cost is a factor limiting use.
Pictures of women	Many of you have received advice about how to feed your child. Please look at the photographs I showed you earlier. Which one of these women looks like she could have given you advice?	- Why? - From your neighborhood, health center. . . - Modern vs. traditional views - Why not for those chosen?
Attitude/Images of Breastfeeding and Bottle feeding Pictures of women	Please look again at the photographs. Who do you think would have breastfed their child and not used a bottle?	- Why? Why not others?
	Who do you think would be using a bottle?	- Why? Why not others? - Beginning other milks
Neighborhood Woman	Which of these women could possibly live in your neighborhood? Let's say this woman who lives in your neighborhood had a child of one month. She had been breastfeeding her baby, but now came to you for advice on what to do next. What would you recommend?	- Depends on whether child is sick or healthy? - Why?
Children's Pictures	Now please look at these three children. How have they been fed?	- Fatness, strength - Other things than milks

TOPIC	DISCUSSION/TRANSITIONS	PROBES
Breastfeeding/Bottle problems	Finally, I would like to ask you if you have heard of any problems associated with breastfeeding?	- Maternal weakness - Lack of milk - Nipple soreness - Ability to overcome
	What about bottle feeding?	- Child illness - Nutrition - Cost - Ability to overcome
Closure	Recap some points discussed. Thank you for your time. Now do you have any questions you would like to ask? I am not sure I will be able to answer them all, but I will try. (Record all questions. Do not lecture on child feeding.)	

FGD GUIDE -- INEXPERIENCED WOMEN

TOPIC	DISCUSSION/TRANSITIONS	PROBES
Introduction.	Facilitator and Observer names	
Topic of Interview.	We would like to talk to you today about your children.	
No right or wrong answers.	There are no right or wrong answers to any of the questions.	
Your opinions.	We would just like to know about what you do normally and ask your opinions.	
Child health project.	We are working on a project about child health in Pakistan.	
Help other people like them.	We would like to know your experiences and thoughts to help other families. After we are finished, we will tell you more about the project.	
Length of time of discussion.	This discussion will take about an hour.	
Talking to one another.	As we will be discussing many things among ourselves, it will be important that we not all talk at once because we will want to hear each other so we can talk together.	
Explain note-taking and tape recording.	_____ (observer's name) will be writing down some of the things we talk about so we can remember them later. Also, we would like to use a tape recorder. Does anyone object?	
Confidentiality.	We are the only ones who will know you and your baby's name and we will not use them in any written reports.	
Check understands.	Do you understand what I have said?	
Clarification if needed.	Do you have any questions?	
Women's Introduction (warm up)	Please introduce yourselves and as you do, please tell us if you are around children much? If you have cared for an infant?	How old? Feeling about experience with children.
Exposure to child feeding: (establish general knowledge base) - Birth	It seems you have a lot of contact with children. You have mentioned nieces or nephews. Do you have any idea about how these children have been fed? For example, right after birth?	- Ghutti, colostrum, sugared water, ghee - Why given, or in case of colostrum, why discarded?
- 0 - 4 months	When the baby is in the first months (up to four), what have you observed that friends' or relatives' babies are fed?	- breastmilk - formula, other milks - water - teas...
Attitude breastfeeding and bottle feeding	You have mentioned that some of the people you know breastfeed while others bottle feed and many do both. What is your opinion of what is best for the baby?	- Fatness vs. strength of infant - Does age of baby make a difference? - Under what conditions? - Is feeding only breastmilk sufficient? - Why? - Do babies need a bottle sometimes? - Health of mothers?

TOPIC	DISCUSSION/TRANSITIONS	PROBES
Pictures of children	Now I would like to show you some pictures of Pakistani children. Would you tell how you believe they have been fed?	- How know, why? - Breast, formula, other milk, water, tea, bottle...
Own babies (retake attitudes to future situations)	How do you feel about having a baby? How would you take care of a baby if you had one?	- How do you think you will feed the baby? Why? - Can you imagine breastfeeding? - Describe? - Fear/anticipations
Sight of breastfeeding	Although you know people who breastfeed, have you seen a woman breastfeeding? How did you feel?	- Both positive and negative
Pictures of women	Now I want to show you some pictures of women. Which of these women do you think are likely to breastfeed their infants? Which would bottle feed?	- Why? - Are any of the women like them?
Sources of information (how to reach and persuade)	We have been talking about feeding young children and all of you seem to know quite a bit. How did you learn?	- Who? Relatives? Friends? Health personnel? School? - Media: Radio, TV? - Print: which one?
Seeking advice	Please look at the pictures again. Suppose you wanted to find out more about infant feeding. Which of these women might you go to?	- Why? Where would you find her (neighborhood, health facility...? - Would you talk to a friend (person of peer group)?
	Please tell me about your favorite TV or radio programs.	- Name - Time of day, how frequently watch or listen? - Seen/heard programs on children? Reaction?
	Do you read or look at magazines?	- What publications? - Topics? - Read/seen pictures related to children? Reaction?
Closure	Recap some of the points discussed. Thank you for your time. Now do you have any questions you would like to ask? I am not sure I will be able to answer all of them, but I will try. (Record all the questions. Do not lecture on child feeding).	

FGD GUIDE -- MOTHERS-IN-LAW

TOPIC	DISCUSSION/TRANSITIONS	PROBES
Introduction.	Facilitator and Observer names	
Topic of Interview.	We would like to talk to you today about your children when they were young and your grandchildren as they are young now.	
No right or wrong answers.	There are no right or wrong answers to any of the questions.	
Your opinions.	We would just like to know about what you do normally and ask your opinions.	
Child health project.	We are working on a project about child health in Pakistan.	
Help other people like them.	We would like to know your experiences and thoughts to help other families. After we are finished, we will tell you more about the project.	
Length of time of discussion.	This discussion will take about an hour.	
Talking to one another.	As we will be discussing many things among ourselves, it will be important that we not all talk at once because we will want to hear each other so we can talk together.	
Explain note-taking and tape recording.	_____ (observer's name) will be writing down some of the things we talk about so we can remember them later. Also, we would like to use a tape recorder. Does anyone object?	
Confidentiality.	We are the only ones who will know you and your baby's name and we will not use them in any written reports.	
Check understands.	Do you understand what I have said?	
Clarification if needed.	Do you have any questions?	
Women's Introduction (warm up)	Please introduce yourselves and as you do, please tell us about the sons you share a house with and little about your grandchildren.	- Number of grandchildren - Age of youngest grandchild
Grandchild's health (Background against which to measure results of different practices)	You all have grandchildren who are close to you in the house. Can you tell us what you think about the health of your grandchildren or grandchild?	- Healthy, why? - Sickly, why? - Comparison of grandchild with own children. - Competence of daughter-in-law. - Role of feeding in health.
Grandmother's role in caring for grandchild (Active vs. passive involvement)	You all have at least one grandchild in the house. Are you involved in the care of the child? What do you do?	- Is she happy with this role? - Role in feeding? - Left with a bottle?

TOPIC	DISCUSSION/TRANSITIONS	PROBES
Knowledge of current and past feeding practices and influences (appeals to be made to grandmothers)	Some of you have mentioned that you help feed your grandchildren. Please think back to when you fed your own child. Let's discuss how feeding has changed over time.	
	Let's begin with the period immediately following birth.	- First foods - Use of colostrum - Breastfeeding - Who influenced you and who influenced daughter-in-law?
	What about during the first four months?	- Breastmilk - Other milks - Semi-solids - Water
Influence on Daughter-in-law	You have mentioned some difference between how you fed your children and how your daughters-in-law are feeding you children.	- When is it most important to give advice? - What advice, why? - Degree of influence
	Do you believe it is your place to tell you daughter-in-law about how to feed your grandchildren?	- Extent to which daughter-in-law follows advice - Colostrum - Need to supplement breastmilk
Images/Attitudes Breastfeeding/Bottle (Women's Pictures)	Now I would like you to look at pictures of Pakistani mother-in-laws (show only three, of older women). Let's talk about how their grandchildren would be fed and the advice they would give to their daughter-in-laws.	- Whose daughter-in-law would breastfeed, bottle feed? - Would these grandmothers agree/disagree?
(Children's Pictures)	Now I want to show you some pictures of Pakistani children. Please look at the pictures. Now let's discuss how you believe each child is fed.	- Breast, formula, other milk - Any advice for mother of child?
Problems	I would like to ask you if you have heard of any problems associated with breastfeeding?	- Maternal weakness - Lack of milk - Nipple soreness - What can be done to overcome?
	What about breastfeeding?	- Child illness - Nutrition - Cost - Ability to overcome
Maternal diet	Finally, I would like to ask you about your daughter-in-law's food. Most of you have daughter-in-laws who breastfeed (may have to change). How did they eat while breastfeeding? Did you have a say in this?	- Liquids - Quality of food - Daughter-in-law's food in relation to rest of family
Closure	Recap some points from the discussion.	
	Thank you for your time. Now do you any questions you would like to ask? I am not sure I will be able to answer all of them, but I will try. (Record all questions. Do not lecture on child feeding.)	

2. Focus Group Discussion Guides

Nicaragua
Ministry of Health/Wellstart EPB Breastfeeding Promotion
Guide for Focus Group Discussions
Rural Mothers of Children less than Six Months Old
[translated from the original Spanish]

Topic	Questions	Probes
Introduction	Greetings, thanks, and presentation of the moderator and assistant	
Topic of the discussion	Today we want to talk with you about your breastfeeding experiences	
What we would like to learn	All of you have something in common: you are breastfeeding. We are very interested in your experiences and opinions. There are no correct or incorrect answers, only different points of view	
Programs that promote health	We are working for a child feeding project	
How the information will be used	What you tell us today can help other people like yourselves. At the end of the meeting we can tell you more about the project	
What will happen in this meeting	I want to explain how we would like to work	
Use of the tape recorder	We want you to express yourselves freely. Although my assistants will take notes we would like to record the discussion, because we can't get down everything	
Confidentiality of the information	We will use no names in the report, and everything that you say will be confidential	
Duration of the meeting	The meeting will last for an hour and a half	
Rest room and snacks	Feel free to quietly use the rest room or get a snack	
Clarifications	Do you have any questions or have anything you would like clarified?	
Introductory question	Let's start at my right, and every one please answer. I want you to remember and to tell the group about your youngest child and what s/he likes to eat or drink	
Infant feeding practices	What is the first thing that you gave your child after s/he was born?	When did you first put the baby to breast? Pacifiers, other milks, cooked foods
Attitudes and values regarding maternal milk	For you, how important is giving breastmilk to your children?	What benefits have they had?
Perceptions and beliefs regarding maternal milk	How do you believe maternal milk is formed in the body?	What is most important so that the mother can have milk?

Perceptions and beliefs about colostrum	What do you think about colostrum, that first yellowish milk that comes out before the regular breastmilk comes in?	What is it good for? What nourishment does it give?
Introduction of other foods	Besides maternal milk, what other things do you now give to your young baby or do you think you'll give later?	Water, fruit juice with water, other milks, cooked foods What are they for?
Meaning and value of exclusive breastfeeding; effect on the child; self-control of the mother	What about the idea of giving only breastmilk, nothing else, how long will that nourish the child?	What do some women do in order to give only breastmilk?
Obstacles or problems in breastfeeding	How have your experience in breastfeeding been?	Difficulties? How have they been solved?
Changes in the mothers' diet	What do you eat while you are breastfeeding?	How is this different from how you normally eat? Quantity? Quality?
Advice on breastfeeding	What advice have you received regarding breastfeeding?	Who gave it to you? What do you do when you get such advice?
Preference in radio and TV programs	What radio and TV programs do you listen to or watch?	Favorite personalities, what it is that you like?
Conclusion, presentation of a summary	Before closing the meeting, I want to make a short summary of what you said to see if you agree with it	
Thanks	Do you have any questions? Thank you very much for attending	

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Jigawa State, Nigeria, FGD Guides

Introduction to All Guides

Topic	Discussion/Transitions
Introduction	Facilitator's and Observer's names
Topic of Interview	We would like to talk to you today about your children, especially when they are young.
No right or wrong answers	There are no right or wrong answers to any of the questions -- this is not a test.
Your opinions	We would just like to know about what you do normally and ask your opinions.
Child Health Project Help other people like them	We are working on a project about child health in Nigeria. We would like to know your experiences and thoughts to help other families. After we are finished, we will tell you more about the project.
Length of time of discussion	This discussion will take about an hour.
Talking to one another	As we will be discussing many things among ourselves, it will be important that we not all talk at once because we will want to hear each other so we can talk together.
Explain note-taking and tape recording Confidentially	_____(observer's name) will be writing down some of the things we talk about so we can remember them later. Also, we would like to use a tape recorder. Does anyone object? We are the only ones who will know your name and your baby's name, and we will not use names in any reports.
Check understanding Clarification if needed.	Do you understand what I have said? Do you have any questions?

FGD Guide: MOTHERS OF CHILDREN UNDER TWO YEARS OLD

Topic	Discussion/Transitions	Probes
Women's Introduction (Warm up)	Please introduce yourselves -- and as you do, tell use how many children you have, the name and age of your youngest child.	-Observer should record this information for use during analysis.
Motherhood (to Establish Emotional Pulls)	As you all have young-children, can you say something about how your child makes you feel? As a mother, how do you fell when you breastfeed your child?	-Happy, why? -Proud, why? -Tired, why? -Link to future -Aspirations
Good Mother (to Establish Tone)	There are many things your children do that make you happy. Now I would like to shift to you, the mother. These are some pictures of women here in Nigeria (place photos so all can see). Which one of these women do you believe is a good mother?	-How can you tell? -What is it about her? -How would she care for her child? Why are others not good mothers?
Necessities for Children of Different Ages (to Place Feeding among Other Needs)	Among us we have mothers with children of many different ages. Think of your youngest child and tell us: What was important for your baby right after birth? What was important for your baby during the first month? What about in the next months up to six months?	-Ceremonies -Foods -Drinks/water -Why? -Ceremonies -Food, drinks -Ceremonies -Development -Food, drinks -Why started?
Child Feeding Decisions	Some of you mentioned breastmilk as important for a baby (may have to rephrase) Who has breastfed their youngest child? why did you breastfeed/why did you prefer breastfeeding? Who has influenced your decision to breastfeed?	-Advantages of breastfeeding -Problems with giving other milks -People and reasons influenced - doctor, relatives, friends, husbands
No Breastfeeding	Has anyone not breastfed their baby? Why didn't you breastfeed? (or if everyone breastfed) Why might a mother not breastfeed?	-People and reasons influenced? Husbands? -Health? -Work? -Inconvenience? -Image of breastfeeding?

Topic	Discussion/Transitions	Probes
Use of Other Milks	Earlier, some of you mentioned that young babies need milks other than breastmilk. Who among you is giving other milk to your youngest child? Why did you decide to do this?	-People reasons influence, husbands? -Insufficient milk, what can be done, who knows? -It is prestigious, why? -Benefits of milk to child? -Which type of milk? Why? -Does cost limit use?
Pictures of Women	Many of you have received advice about how to feed your child. Please look at the photographs I showed you earlier. Which one of these women looks like she could have given you advice?	-Why? -From your neighborhood, health center, etc.? -Modern vs. traditional views? -Why not for those not chosen? -Who do you trust?
Attitude/Image of breastfeeding and bottle feeding	Please look again at the photographs. Who do you think would have breastfed their child and not used a bottle? Who do you think would be using a bottle?	-Why? Why not others? -Would she give anything else besides breastmilk? What? Why? -Why? Why not others? -Preparations -What is your opinion? -Advantages/Disadvantages
PHC Growth Chart	Have you seen this card before? What do you understand by this (point to pictogram of mother breastfeeding)? Would you like to have a card?	-Breastfeeding to start at birth -Breastfeeding alone for baby? Number of times to breastfeed per day? -Why?
Breastfeeding and Contraception	If you do not want to get pregnant when you are breastfeeding what do you do?	-Abstinence go away from home, native contraception (rings) -Wean a child?
Breastfeeding and Pregnancy Information	What would you do/if you are breastfeeding and you become pregnant? Where do you think you can get the best advice on child feeding?	-Why? Whose advice is this? -Who do you trust?
Neighborhood Woman	Which of these women could possibly live in your neighborhood? Let's say this woman who lives in your neighborhood had a child of one month. She had been breastfeeding her baby, but now came to you for advice on what to do next. What would you recommend?	-Why? -How convenient? -Beginning other milks -Depends on whether child is sick or healthy? -Water feeds? -Pap?
Children's Picture	Now please look at these three children. How have they been fed?	-Why? -Fatness, strength, health? -Other things than milk?

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Topic	Discussion/Transitions	Probes
Breastfeeding/Bottle Feeding Problems	Finally, I would like to ask you if you have heard of any problems associated with breastfeeding? What problems? What about bottle feeding?	-Maternal weakness -Lack of milk -Nipples soreness -Ability to overcome? -Child illness -Nutrition -Cost -Cow's milk -Ability to overcome?
Contraceptive Effects	Can you get pregnant while breastfeeding? How soon after the previous birth? Is it good to become pregnant soon? If not, how can you avoid getting pregnant too soon?	-Breastfeeding and menstruation? -Postpartum abstinence practiced? How long? -Importance of spacing? -Child's need for breastmilk? -Use of contraceptives?
Closure	Recap some points discussed. Thank you for your time. Now do you have any questions you would like to ask? I am not sure I will be able to answer them all, but I will try. (Record all questions. Do not lecture on child feeding).	

FGD Guide: FATHERS OF CHILDREN UNDER TWO YEARS OLD

Topic	Discussion/Transitions	Probes
Fathers' Introduction (Warm up)	Please introduce yourselves and as you do, please tell us a little about your children.	-Age of youngest -Occupation?
Child Health	What do you think about the health of your youngest child?	-Healthy, why? -Sickly, why? -How do you try to keep your child healthy?
Fatherhood	All of you have a young child, can you say something about how this child makes you feel?	-Happy, why? -Proud, why? -Worried, why? -Link to future? -Aspirations?
Role in Child-care	Are you involved in the care of the young children? What do you do? Are you involved in any activity related to feeding the child? What is your involvement?	-Actual care? -Providing income? -Instructing the mother? -What if the child is ill? -Food purchasing? -What foods? -Distribution? -Actual feeding? -Giving advice?
Influence on Mother	Some of you have mentioned giving advice to your wives on feeding the child. What is the effect of that advice?	-Does the wife follow advice? -What happened? -Examples? -What topics can a man advise on child feeding? -Who else has influence? -What if child is ill?
Pictures of Men	Please look at these pictures, and choose one that looks as if he would be a good father. Which would not be so good?	-Why? -What is it about him? -What would he do for the child? Why? -What would he advise his wife to do? Why? -What about feeding? -Why not? what would he do?
Pictures of Women	From these pictures, who do you think would be a good mother? Which looks as though she will not be so good? Why? Which of these women would breastfeed? Which would give bottles?	-Why? -How would she care for the child? Why? -Feeding? -Why? -What would she do? -Why? Why?

Topic	Discussion/Transitions	Probes
Child Feeding Decisions	Did your wife breastfeed the youngest child?	-Why? What do you think about it?
	Did she give bottles?	-Why?
	Who makes these decisions?	-Who has influence?
	How do you feel when you see your wife breastfeeding?	-Happy, why? -Embarrassed, why? -No reaction, why?
Picture of Babies	Look at these pictures and describe how you think each child was fed.	-Why? -What benefit or harm to the child? -Health, strength, fatness, light/heavy, etc.
Breastfeeding/Bottle Feeding Problems	I would like to ask if you have heard of any problems associated with breastfeeding?	-Lack of milk? -Losing her figure? -Breastfeeding in public -Milk going bad? -Anyway to overcome?
	Some people say the wife cannot have relations with her husband while breastfeeding. What do you think?	-Why? Is it possible for her to get pregnant? -What can be done? -Is that OK?
	Any problems with bottle feeding?	-Child illness -Nutrition -Cost -Any way to overcome? -Animal behavior
	You have told us many things about child feeding. Would you encourage your wife to breastfeed?	-Why or why not? -Exclusive or with bottles?
	Who would you go to for advice on feeding your baby? Where can you or your wife get good information?	-Why? -Interpersonal: who? -Mass media: What? -Examples of any information received?
Closure	Recap some points from the discussion. Thank you for your time. Now do you have any questions you would like to ask? I am not sure I will be able to answer all of them but I will try. (Record all questions. Do not lecture of child feeding).	

FGD Guide: GRANDMOTHERS

Topic	Discussion/Transitions	Probes
Women's Introduction (Warm up)	Please introduce yourselves and as you do, please tell us about your family and a little about your grandchildren.	-Number of grandchildren -Age of youngest grandchild
Grandchild's Health (Background against Which to Measure Results of Different Practices)	You all have grandchildren who are close to you in the house. Can you tell us what you think about the health of your grandchildren or grandchild? Do you feel that feeding of the child affects health? Why?	-Health, why? -Sickly, why? -Comparison of grandchild with own children -Competence of daughter-in-law -Breastfeeding, pap, other foods: benefits/risks
Grandmother's Role In Caring for Grandchild (Active vs. Passive Involvement)	You all have al least one grandchild in the house. Are you involved in the care of the child? What do you do?	-Are you happy with the role? -Role in feeding? -Left with a bottle? -Different feeding when mother absent?
Knowledge of Current and Past Feeding Practices an Influences (Appeals to Be Made to Grandmothers)	Some of you have mentioned that you help feed your grandchildren. Please think back to when you fed your own child. Let's discuss how feeding has changed over time.	-General changes in breastfeeding? -Reasons? -Good or bad changes? -Who influenced you/who influences daughter-in-law?
	Let's begin with the period immediately following birth. What about during the first six months? And later?	-First foods -Use of colostrum -Breastfeeding -Breastmilk -Other milks -Semi-solids/paps -Water -Paps/additives -Solid foods
Motivations for Change	When and why would a mother change how she feeds her child?	-Advice/influence? -Illness? -External factors/work? -Aspirations for child?
Influence on Daughter-in-laws	You have mentioned some difference between how you fed your children and how your daughter-in-law are feeding their children. Do you believe it is your place to advise them on how to feed your grandchildren?	-When is it most important to give advice? -What advice, why? -Degree of influence -Extent to which daughter-in-law follows advice? -Colostrum -Need to supplement breastmilk -Need for water

Topic	Discussion/Transitions	Probes
Images/Attitudes Breastfeeding/Bottle (Women's Pictures)	Now I would like you to look at pictures of Nigerian mother-in-laws (show only 3, of older women). Let's talk about how their grandchildren would be fed and the advice they would give to their daughters-in-law.	-Whose daughter-in-law would breastfeed, bottle- feed? -Why? -Advantages/disadvantages of breastfeeding/bottles. -Would these grandmothers agree/disagree? -Why?
(Children's Pictures)	Now I want to show you some pictures of Nigerian children. Please look at the pictures. Now let's discuss how you believe each child is fed.	-How does the child seem to you? -Healthy, development, social class, cared for? -Breast, formula, other milk -Any advice for mother of child?
Problems	I would like to ask you if you have heard of any problems associated with breastfeeding? What about bottle feeding?	-Maternal weakness -Lack of milk -Nipple soreness -Inconvenience -What can be done to overcome? -Child illness -Nutrition -Cost -Ability to overcome
Contraceptive Effect	Do women get pregnant when they are breastfeeding? What do you think about this?	-Postpartum abstinence? -Breastfeeding and fertility? -Importance of child spacing?
Closure	Recap some points from discussion. Thank you for your time. Now do you have any questions you would like to ask? I am not sure I will be able to answer all of them, but I will try. (Record all questions. Do not lecture on child feeding).	

3. Guides for Trials of Improved Practices

El Salvador
National Nutrition Education Project
Guide for Initial Interview for Household Trials
Children 0-4 months old
[English translation of original Spanish]

Identification number _____

Date: _____

Name of child: _____ Age in months completed: _____

Name of mother: _____ Interviewer: _____

Community: _____ Municipality: _____ Geog. grouping: _____

If the household participated in the in-depth interviews, note the identification number: _____

_____

MINI-DIAGNOSIS

1. Do a 24-hour diet recall for the child, including breastmilk. Use the attached form. Summarize the results as follows:

   a. Breastfeeding? [yes/no]: _____
   If yes, ask:

   number of times during the day _____

   number of times during 24 hours (total of times day and night) _____

   on demand (when desired and until rejected?)? _____

   1 or 2 breasts for each breastfeed? _____

   length of each breastfeed in minutes _____

   b. Does the baby drink other liquids? [yes/no'] _____
   If the answer is yes, ask:

   number of times in 24 hours _____

   amount each time _____

   from a bottle or cup _____

   c. Does the baby eat food? [yes/no]: _____
   If the answer is yes, ask:

Type of food	Frequency	Quantity*	Consistency

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d. *Ask to see the utensils: spoon, cup, plate, etc. Now describe the utensils that are used to feed the baby.

Spoons Type Size	Plates (flat and deep) Type Size	Cups Type Size

**Ask the mother if she still has the food that she most recently fed the child and observe its consistency: liquid, thin gruel, thick gruel, or solid.

2. Was the baby sick yesterday? [yes/no] _____
   If the child was sick, ask:

   a. Did s/he have diarrhea?? [yes/no] _____

   b. Did s/he have a respiratory illness? [yes/no] _____

   c. Did s/he have a fever? [yes/no] _____

   d. Is s/he still sick today? [yes/no] _____

3. Is the mother with the baby most of the time? [yes/no] _____
   If the answer is that the mother is not with the baby most of the time, ask:

   a. Whom is the baby with most of the time? _____

4. Does the mother usually feed the baby or another person? _____

5. Was the mother away from home for more than 2 hours in a row yesterday? [yes/no] _____

6. If the answer to the last question was yes, ask: Did she have the baby with her:

   a. All day? [yes/no] _____
   b. Part of the day [yes/no] _____
   c. Not at all? [yes/no]. _____

7. Is the child well nourished or malnourished [judgment of the interviewer based on the common signs of malnutrition learned during training] _____

SUMMARIZE THE CHILD FEEDING SITUATION FOR THE MOTHER

1. Summarize the results of the mini-diagnosis for the mother.
   a. Breastfeeding: style and frequency
   b. Consumption of other food: quantity, frequency, consistency, utensils used.

2. Briefly tell the mother what aspects of her feeding practices are good and which need to be modified.

3. Summarize the ideal feeding practices for the child.

For example:

I see from what you have told me that Pedrito:
**is breastfeeding/is not breastfeeding*
**is breastfeeding _____ times a day and ___ times in 24 hours.*

The more you nurse Pedrito, the more milk you will have. Moreover, you don't use both breasts each time you nurse, and he needs to feed from the two breasts in order to receive more milk.

I also see that Pedrito already drinks lemonade, water with sugar, and powdered milk at least once a day. At this age Pedrito does not need to drink these things, only breast milk....etc.

4. Use the oral summary that you gave the mother to introduce an explanation of the practice or practices that you are going to recommend. *At this point in the visit, you should already know which are the relevant practices to recommend to the mother. Choose the appropriate practices before continuing.*

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RECOMMENDATION AND MOTIVATION

Now discuss with the mother the practices you are going to recommend for the household trial. Use the list of motivations listed in the table of recommendations and motivations for babies 0-4 months old. You should know which of the practice(s) are relevant.

I. *[Make the relevant recommendation. Ask that the mother follows it for 8 days. Use the list of motivations to explain why she should try out the practices.] Write the recommendation that you make, numbering each step:*

1
2
3
4
5

1. Are you willing to try it? ____
2. *If yes*, do you like the idea?
3. What aspect is most appealing to you? Why?
4. Do you think it will be easy to follow this practice? Why?
5. *If no*, what are the reasons you don't want to try it? What is the problem?
6. Is there some other way to convince you to try out the recommendation? How could you be convinced? What could I say that would convince you?
7. If the mother is not willing because other persons in the home would oppose the idea, ask who are these persons, ask to speak with them, and ask why they oppose trying out the recommended practice.

Name	Relation to the Mother	Reasons and Comments

8. Are there circumstances under which you would be willing to try out the practices? What are these circumstances? What modifications would you make in the practice?

_____

COMMITMENT

II. If the mother is willing to try out the practice, ask for her commitment.

1. Ask her to maintain the current number of breastfeeds per day or increase the number to at least 8 during the day and 12 for each 24 hours during 8 days. Tell her why she should do this. Does she accept? ____

2. Ask her to repeat what she is going to try out. Ask her to say why she is going to try it. Record what the mother says.

3. If she doesn't agree, ask what think she would be willing to try:

4. Tell her that you will return on [date] in 7 or 8 days.

El Salvador
National Nutrition Education Project
Guide for Follow-up Interview for Household Trials
Children 0-4 months old

[English translation of original Spanish]

Identification number _____

Date: _____

Name of child: _____ Age in months completed: _____

Name of mother: _____ Interviewer: _____

Community: _____ Municipality: _____ Geog. grouping: _____

If the household participated in the in-depth interviews, note the identification number: _____

_____

1. Begin the in-depth interview with a 24-hour recall of the baby, using the recall form.
2. Now summarize the results of the 24-hour recall, noting the following:
   a. Number of times that the mother breastfed in 24 hours _____
   b. Number of other feeds _____
   c. What foods or liquids were given and how much:
3. Now refer to the completed form for the initial interview, where the agreed-upon recommendations are written. Write each one below:

1-
2-
3-
4-
5-

4. For each recommendation, note if the mother tried it [yes/no]
   If the answer is no, ask why. Probe carefully.
   If the answer is yes, ask how did the experience seem to the mother. How did she like it and why.
5. For each of the trial recommendations, ask what aspect she liked the most and why. Record the answers next to the practice.
6. For each trial recommendation ask what aspects she did not like or liked less and why. Probe carefully to verify if there were problems of availability of food for the mother, of time, of money or other resources, if the recommendation was too complicated, difficult, confusing, etc. Record the answers next to the practice.
7. For each of the trial recommendations ask and probe carefully on what changes or modifications were made during the course of the trial. What were the changes? Why? Record the answers next to the practice.
8. Besides the mother, was there anyone (husband, family, relative, neighbor, friend, health provider) who gave an opinion concerning the recommendations? Did anyone say anything to the mother concerning the recommendations? What did they say? Did anyone say anything to the interviewer during the interview? What did they say? Record the answers next to the practice.
9. Which recommendations is the mother disposed to continue to follow from now on? Why or why not? Record the answers next to the practice.
10. Would you recommend the recommended practices to another mother? Why or why not? If yes, what would you say to her? How would you convince her to try it? Record the answers next to the practice.

This completes the follow-up interview. Before leaving, ask the mother if she has any comment or she has anything to ask. Respond to any uncertainties she may feel. Thank her for her time, collaboration, and participation in the household trial.

An alternate method for conducting TIPS requires three visits. It is most appropriate if there was little if any exploratory research. The following question guides from the **Oyo/Osun, Nigeria** study illustrate the three-visit approach to TIPS.

HOUSEHOLD TRIALS: INITIAL VISIT

BACKGROUND INFORMATION:

Date: __ __/__ __/__ __ (d d m m y y) Start time: __ __:__ __

Community: _____ Code: ____

Interviewer: _____ Code: ____

Child's Name: _____ I.D.: ____

Age in Months: __ __ Birth date: __ __/__ __/__ __

Sex: ____ Mother's Occupation: _____

Number of hours per week away from child: _____

Caretaker's Name: _____

Relationship to child: _____

Address/Compound: _____

_____

Explain to the mother that we want to learn about her child's health and feeding.

HEALTH HISTORY:

1. How is the child's health today? (Probe for current or recent illness and symptoms.)

2. How is the child's overall health? Any problems? (Probe for frequent illnesses and mother's general impression of the child's health.)

2a. If possible, check the growth chart and note how well the child is growing. Also, note your own observations about whether or not the child looks healthy.

3. Generally, how is the child eating? Any problems? How is the appetite?

BREASTFEEDING HISTORY:

4. Is child breastfed? ____ (Y/N)

4a. If yes: Frequency? (estimate number of times) Day _____ Night ____

On demand? Day _____ Night ____ (Y/N)

Until when does she plan to continue?
____ (child's age in months)

4b. If no: Ever breastfed? ____ (Y/N)

4c. If yes: When did she stop? _____ months

Why?

4d. If never breastfed: Why not?

BREASTFEEDING OBSERVATION:

If mother breastfeeds during the interview, observe her and the child and make notes on breastfeeding style. For example, include points such as the following:

Does the mother seem relaxed about breastfeeding?
Does she feed from both breasts?
Does she begin the next breastfeed with the other breast?
Who initiates and ends the feeding: the mother or the child?
Does the child breastfeed frequently? For long periods?

FEEDING OBSERVATION:

As part of the dietary assessment, observe any feedings that take place during the interview, noting issues such as type of food, consistency, amount served and consumed, method of feeding, and attitude of both caretaker and the child. Make notes to supplement the 24-hour recall.

DIETARY ASSESSMENT:

5. Conduct 24-hour recall for all foods and liquids (including water) other than breastmilk.

   Ask mother to tell you everything the child has taken by mouth in the previous day and night. Start in the morning and for each food, ask what the ingredients were, the amount and the mode of feeding (hand, cup, bottle, etc.)

   Probe for snacks or pieces of fruit between meals, bites of family meals shared with the mother, foods purchased from vendors, drinks of tea, milk, water or other liquids. Be patient and allow the mother to recall everything she can.

Hour	Food or Drink	Ingredients	Amount	Mode

6. Conduct a food frequency assessment about other foods, drinks, or snacks that the child commonly receives (other than those listed above). Ask the mother about foods she sometimes gives the child, but not yesterday. The idea is to learn about other foods that did not her included in the 24-hour recall, but that the child might eat at least once a week.

   Probe for foods eaten only once in a while, such as when away from the house, on weekends, or just when available. Ask mother to estimate how much the child usually eats of this food, and about how often. Also, ask about purchased foods and snacks.

Food/Drink	Ingredients	Amount	Times per week

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Ask the questions below that apply to the child's age and diet. Probe and take detailed notes.

For all children aged 0-5.9 months:

7. What was the first thing given by mouth to the child after delivery?
   Why?
   Who recommended it?

8. When was breastfeeding started?
   Was colostrum given?
   Why or why not?
   Would you be willing to start breastfeeding within one hour after birth?
   Why or why not?

9. What is the next new food or drink you are planning to add to the child's diet?
   Why?
   When? How will you know the child is ready?

For all children aged 0-11.9 months, if ever breastfed:

10. Have you had any problems breastfeeding?
    (Probe insufficient milk, soreness, child crying, child refusing, being away from the child, etc.)
    What problems? (If none, skip to #11)
    What did you do to resolve these problems?
    Who do you ask/where can you go for help with breastfeeding problems?

For all children aged 6-23.9 months:

11. Is there any change in the child's appetite or feeding during illness? (Probe: diarrhoea and respiratory infection)
    Does the child take less, the same or more of breastmilk?
    Of water and other liquids?
    Of pap and soft foods?
    Of solid foods?
    If less, is it due to child refusing or you not offering?
    Is appetite a problem? What do you do about it?

For all children:

12. Where do you learn new information about child feeding?
    Who is a good (trusted) source of information or help with child feeding problems? Why? (probe for VHW, TBA, CBD)

13. Do you listen to the radio?
    If yes, how often? What do you like to listen to?
    Have you heard any information about child health on the radio?
    What messages? What did you think about it?
    What about television? (same probes as for radio)

    By the end of the interview, try to carefully/indirectly find out the level of education of the mother, the number of children, and the birth order of this child (third, fifth, etc.)

    Mother's Level of Education (check one):

    None: ____ Primary incomplete: ____ Primary completed: ____
    Secondary incomplete: ____ Sec. complete: ____ Post-sec.: ____

    No. of children: _____ Birth order of child in study: _____

Closure: Thank the mother for answering your questions and explain you will return tomorrow to discuss the child's diet with her. Arrange a time to visit.

Counseling visit arranged for: _____

Time finished: __ __:__ __

HOUSEHOLD TRIALS: COUNSELING VISIT

BACKGROUND INFORMATION:

Date: __ __/__ __/__ __ (d d m m y y) Start time: __ __:__ __

Community: _____ Code: ____

Interviewer: _____ Code: ____

Child's Name: _____ I.D.: ____

Caretaker's Name: _____

Same person as interviewed on Visit 1? ____ (Y/N)

If no: Relationship to child _____

DISCUSSION OF DIETARY ASSESSMENT:

Explain your assessment of the child's diet to the mother, remembering to praise her for any positive practices.

For example:

Your child has/has not been receiving breastmilk..."
(If receiving, note frequency and any problems.)

"In addition, you child is getting...

_____ (milk/drinks) and

_____ (foods)."

(Note frequency, quantity, thickness for the mother.)

"Your child takes this from a bottle/cup/by hand/or from a common plate with the rest of the family, etc."

"As you have told me, your child seems to be healthy/ill in the past/frequently ill/ill today..."

(Ask any other important information the mother has mentioned. Ask if she agreed with your summary.)

RECOMMENDATIONS:

Recommendation # ____:

_____

Specific food options suggested:

_____

_____

Mother's initial response:

_____

_____

_____

_____

Willing to try? Why or why not?

_____

_____

_____

_____

Any other circumstances under which she would try the recommendation? When? What modifications?

_____

_____

_____

Ask the mother to explain to you the new practice she will try. Make sure she understands and agrees. Summarize (in her own words) what the mother has agreed to try:

_____

_____

_____

Ask if she has any questions or comments (record them). Make sure that all the details of preparation are clear.

Write what she is going to try on a "Child Feeding Reminder" slip and give it to her to keep.

Arrange a date for follow-up visit in about five days (see schedule). Ask mother when is a convenient time of day to meet her and try to arrange that she will be home when you come.

Follow-up visit arranged for: _____

Thank mother for spending time answering your questions and encourage her to really try the new practice.

Time finished: __ __:__ __

HOUSEHOLD TRIALS: FOLLOW-UP VISIT

BACKGROUND INFORMATION:

Date: __ __/__ __/__ __ (d d m m y y) Start time: __ __:__ __

Community: _____ Code: _____

Interviewer: _____ Code: _____

Child's Name: _____ I.D.: _____

Caretaker's Name: _____

Same person as interviewed on Visit 2? ____ (Y/N)

If no: Relationship to child _____

DIETARY ASSESSMENT:

3.1 Begin with a 24-hour recall, following the same approach as during the first visit. Probe for all foods, beverages and snacks consumed by the child in the previous day and night.

(Insert 24-hour recall table, as in form for initial interview.)

3.2 Analyze the dietary information and note any differences since the first visit. Is there any indication that the mother has added the new practices that were recommended? How is the adequacy of the diet now?

Breastfeeding practices (including frequency):

Feeding frequency (other than breastfeeding):

Amount given:

Quality/variety:

Consistency/thickness:

Hour	Food or Drink	Ingredients	Amount	Mode

OUTCOME OF TRIAL:

Refer to summary of the agreement made with the mother during the second visit (after counseling). Using the following forms, note each practice she agreed to try, and ask questions listed. Probe for reasons why and make detailed notes.

Fill in separate forms for each practice she agreed to try, or for what she tried instead.

Recommendations: _____

_____

3.3 Has the mother tried it? ____ (Y/N)

3.4 If no, what are her reasons? Probe why not?

_____

_____

_____

3.5 If yes, did she like it? ____ (Y/N)

3.6 What did she like about it?

_____

_____

_____

_____

3.7 What didn't she like about it?

_____

_____

_____

3.8 How does she feel the child responded?

_____

_____

_____

3.9 Did she modify the recommendation? How? Why?

_____

_____

_____

3.10 Did other people say anything about it? Who? (Husband, in-laws, friends?) What did they say?

_____

_____

_____

3.11 Will she continue the recommended practice? Why or why not? Will it be every day?

_____

_____

_____

_____

3.12 Would she recommend it to others? How would she convince them to try it? (in her own words)

_____

_____

_____

_____

Closure: Encourage mother to continue practice and ask of she has any questions or comments. Provide counseling or information as needed. Thank her for her participation in the study.

Time finished: __ __:__ __

Appendix E
SAMPLE BREASTFEEDING PROMOTION STRATEGY GRIDS

This appendix presents sample strategy grids from the Cochabamba, Bolivia Reproductive Health Project (supported by USAID's MotherCare Project) and the Wellstart-supported breastfeeding and infant-feeding project that supports NGOs in Oyo, Osun, and Jigawa States, Nigeria. Separate grids for general behavior change strategy and communications-component strategy are found for the Bolivia project, but these are combined in one grid for the Nigeria project.

Part 1: Sample Strategy Grids from Cochabamba Bolivia
GENERAL STRATEGY

Problem (Population): Delay in initiating breastfeeding for two to three days postpartum. EXAMPLE:

TARGET POPULATION	BEHAVIOR			INTERVENTIONS		
	PROBLEM PRACTICES	IDEAL PRACTICES	PROPOSED ACTIONS/ OBJECTIVES	COMMUNICATION MESSAGES	MODIFICATION IN HEALTH SERVICES	TRAINING
Pregnant mother	*They do not breast feed the newborn during the first two to three days. *They feed the newborns anise water for the first few days. *Some mothers use a bottle to feed the anise water to the newborns. *Withholding and discarding the colostrum.	* Breastfeed the newborn during the first to or three days. *Do not feed anise water. *Do not use a bottle.	*Place the child at the breast at birth. *Give the child colostrum. *Use a cup and spoon when feeding the newborn anise water.	*Maternal milk is the best nutrition and drink you can give the baby during the first two or three days. *Colostrum is not bad milk but rather a very special and good milk for your baby. *All mothers can have good milk. *Colostrum nourishes the baby, cleans the baby's stomach and helps protect him/her against infection. *Place the child at the breast at birth. *Use of the bottle can cause serious ailments and even death.	*Recognize the traditional practices and beliefs of the mothers and instruct them about the initiation of breastfeeding. *In those deliveries attended by health care workers, help the mother to begin breastfeeding within the first hour of the child's birth. *Advise women to feed colostrum to their infants and help them feel comfortable. *For those mothers that insist on feeding their newborns anise water, provide them with cups and spoons and explain why this is better than the bottle.	*Train health workers about: -basic knowledge about breastfeeding with emphasis on colostrum -Andean ethnophysiolog y about breastfeeding. -motivational contents to help mothers initiate breastfeeding immediately following delivery. -techniques for breastfeeding. -dangers associated with the use of a bottle. *Train groups of mothers and fathers as well.

COMMUNICATION STRATEGY

TARGET POPULATION	MESSAGES				MEDIA		
	BEHAVIORAL CONTENTS	MOTIVATIONS	PRINCIPAL BARRIERS AND AREAS OF RESISTANCE	AUTHORITY FIGURE FROM WHOM THEY ACCEPT ADVICE	COMPLEMENTARY MESSAGES AND OTHER ELEMENTS	MEDIUM	FORMAT
Pregnant mothers	*Place the child on the breast at birth. *Give the newborn the colostrum. *If you want to feed your child anise water, use a cup and spoon.	*The newborn who receives colostrum is better nourished and better protected against infection. *Colostrum cleans the newborn's stomach (intestine). *Children that do not receive the bottle are healthier. *Breastfeeding a child at birth will help the mother produce milk and decrease placenta and the hemorrhaging as well as help the dirty blood exit the body.	*Beliefs that: -colostrum is poisonous/kills/is harmful/is not nourishing. -breasts fill up with ripe milk during the second or third day after delivery. -anise water cleans the small intestines and protects against digestive illness. *The mother or mother-in-law's beliefs. *It takes longer to feed using the cup and spoon. *Cups and spoons are not available at the services.	*Mothers of the pregnant women *Mothers-in-law *Nurses	*The messages should emphasize that the newborn does not need any nourishment other than the mother's milk during the first days and months. *The faster the child is placed at the mother's breast, the faster the milk will come in and the dirty blood will exit the body. *Where to get information on breastfeeding. *Who to contact to resolve problems.	*Radio *Television *Printed material	Spots Dramas Educational programs Posters in the health center

Part 2: Strategy Grids from Nigeria Breastfeeding Promotion Project

Desired Practices	*Current Practices*	*Comm. Targets*	*Other Activities*	*Resistances*	*Appeals*	*Media*
Initiate breastfeeding within one hour of birth	Most mothers delay initiation from several hours to several days; Early initiation does occur in Dutse Hospital	Mothers Grandmothers TBAs	Train facility staff, VHWs, TBAs, community health extensions workers (CHEWs), CBDs (Positioning, attachments, etc.); Review and improve facility norms	Facility norms: health staff first need to examine, care for third stage of labor, clean mother and baby; health workers (HWs) and mothers feel mothers need rest; Mothers etc. feel milk has not come in yet and that baby must have prelacteal feeds.	Helps establish good breastfeeding, stimulates breastmilk production; The baby should become happy and stop crying; Helps deliver placenta faster and reduces loss of good blood; Helps establish stronger mother-child bond.	Counseling Radio Group Discussion Drama
Feed colostrum	Many mothers discard colostrum but mothers in contact with health programs feed it; in JIGAWA especially, most babies given water, glucose water, kwalli, potash	Mothers Grandmothers TBAs	Train facility staff, VHWs, TBAs, CHEWs, CBDs	Colostrum is dirty, full of germs, causes diarrheal; Don't like color; In JIGAWA especially, many feel baby must have water after rigors of labor; belief that breastmilk is food, so baby needs water; prelacteal feeds given to teach baby how to swallow and to test that the baby's organs are working; Mothers also say nipples are sore and sucking painful right after birth	Colostrum is the perfect first food – a natural means of cleansing the stomach, protects against disease, and provides all needed water; In JIGAWA especially, breastmilk alone satisfies the baby's thirst.	Counseling Radio Group Discussion Drama

Desired Practices	*Current Practices*	*Comm. Targets*	*Other Activities*	*Resistances*	*Appeals*	*Media*
Give breastmilk only for baby's first 4-6 months: no water, glucose water, agboo, other milk, pap	Only 2% breastfeed exclusively; most give liquid supplements from birth and many introduce thin pap at three months and some give formula; Some mothers suspend or stop breastfeeding if breasts engorged, have abscess, mother is sick; In JIGAWA, almost all mothers feed water and many give kwalli, thin pap, other fluids during first four months; many mothers, especially urban, use baby bottles (feeders) to give water.	Mothers Grandmothers Fathers	Train facility staff, VHWs, TBAs, CHEWs, CBDs	"Insufficient milk" which is believed caused by poor maternal diet, also by small beasts (lack of knowledge of, sucking/milk production); Lack of confidence that breastmilk alone satisfies crying baby's hunger or developmental needs; Feel baby needs extra water for thirst, needs glucose water to reduce jaundice; Mothers believe their breastmilk turns sour if breast engorged, have abscess, mother is sick; Image that modern woman introduces formula early; Fear breasts will sag; Mother too busy.	Breastfeeding is natural, divine - a mother's duty (Ase Oluwa ni); Great for infant stimulation, bonding, development of intelligence; breastmilk is complete food and WATER for first four to six months; Giving only breastmilk makes baby more relaxed and satisfied; Most hygienic way to feed baby and prevent mother's or other illness; Reduces chance of diarrhea; Feeding infant is mother's responsibility, not cow's!	Counseling Poster Radio Group Discussion Drama

Desired Practices	*Current Practices*	*Comm. Targets*	*Other Activities*	*Resistances*	*Appeals*	*Media*
Working mother should also breastfeed exclusively for four to six months; should express milk and/or use other strategy (bring baby to work, return home at lunch)	Many urban working mothers supplement with formula or pap by three months	Mother Grandmothers Fathers Employers	Train health workers (HWs) about expressing and storing breastmilk	Same as above and mothers want or need to return to work; breastfeeding is too restrictive of their movement; Feel expressed milk quickly turns sour, watery, causes diarrhea	Same as above plus facts about expressed milk	Counseling Television? Radio (including testimonials of mothers who expressed milk) Print (women's column, etc.)
Continue to breastfeed if: a) sexual relations resume, or b) mother becomes pregnant	Many mothers stop breastfeeding because sexual relations resume or b) mother becomes pregnant	Fathers Mothers Grandmothers	Train HWs, TBAs	Traditional communities think sperm enter breastmilk and harm baby and that pregnancy also affects the milk and makes drinking it dangerous	It is safe to resume sexual relations or even to get pregnant (although it is better if the couple waits two years) the breastmilk is as pure and healthy as ever	Counseling Radio-discussion format
Continue to breastfeed and seek advice from HW if have breast abscess, sore nipples, engorgement, breast surgery	Early suspension of termination of breastfeeding because of these problems although few mothers admit to having them themselves	Mothers Grandmothers Fathers	Train HWs and support them with illustrated reference materials	Lack of confidence in HWs; Time and cost; Belief that milk gets contaminated; Pain/discomfort	Continuing is safe and best for the baby; Problems can usually be solved easily with good advice.	Counseling Radio

Desired Practices	*Current Practices*	*Comm. Targets*	*Other Activities*	*Resistances*	*Appeals*	*Media*
For babies four to six months old: continue to breastfeed on demand and gradually introduce enriched pap (add palm oil and egusi seed, soya flour, mashed fruit, crayfish, etc.); Pap should not be too watery; In JIGAWA, enrich millet pap with ground nuts, soy beans, oil, and butter; very important to begin other foods by sixth month	Supplementary food introduced too early (often three months) and is nutritionally very inadequate (thin pap); Some mothers add sugar, or possibly soya milk, eggs, kulikuli to pap; In JIGAWA, most mothers give breastmilk, water, and thin millet pap but some delay until eighth or ninth month to supplement	Mothers Grandmothers Fathers	Train HWs, TBAs; Support family gardens	Cost/low family income; Time for preparation; Convenience of feeding thin pap and strong belief baby cannot digest thick pap; Lack of knowledge on how to prepare; Traditional food beliefs, taboos, e.g.. some fathers think soya beans harmful	Parents want babies to have a good, healthy diet so must know that breastmilk alone no longer provides enough nutrients for growing baby and that pap that is not enriched is almost worthless; Baby will be active, robust, powerful	Counseling Food demonstrations (demonstration guide) Radio Television? Poster
If child is sick or otherwise not eating well, be patient and persistent but do not force-feed; Continue to breastfeed	Some mothers force feed or stop feeding sick babies	Mothers Grandmothers	Train HWs	Sick baby may lose appetite; Mothers want to rest stomach, esp. if child vomits; Force feed well child because believe child must eat more and also quicker for mother.	Parents will probably cooperate if know that sick baby needs breastmilk (food and liquid) and (if older) other foods for recovery; Must understand and avoid dangers of force feeding.	Counseling Radio Group talks

Desired Practices	*Current Practices*	*Comm. Targets*	*Other Activities*	*Resistances*	*Appeals*	*Media*
For babies six to twelve months old: continue to breastfeed on demand & (several times a day) feed soft, enriched foods such as palm oil, eko afala, ekuru, mashed beans, moin-moin, enriched ogi (with nuts, seed, oil, eggs, fish, sugar) and healthy snacks such as fruit each day; Use good food hygiene (wash hands and don't give anything in a baby bottle); in JIGAWA, give soft foods such as banana, ground nuts, eggs, maize pudding, tuwo, masa	Most mothers continue to breastfeed but feed supplementary diet very inadequate in calories and vitamins; in JIGAWA, most mothers give breastmilk, water, thin pap and some family foods	Mothers Grandmothers Fathers	Train HWs, TBAs; Support family gardens	Cost/family income; Time to prepare; Feel convenient to feed thin pap and believe baby cannot digest thick; Believe fruits, vegetables cause diarrhea, hard to digest; Taboos against fish, eggs; Lack of knowledge; Lack of convenient and potable water	Needs of a healthy, growing, developing baby certainly worth a small amount of extra effort; Baby will eat more and be more satisfied; Will be active, robust, powerful; Good hygiene essential to prevent diarrhea	Counseling Radio TV Food demonstration

Desired Practices	*Current Practices*	*Comm. Targets*	*Other Activities*	*Resistances*	*Appeals*	*Media*
For babies twelve to 24 months old: (1) continue to breastfeed; (2) feed gradually larger portions of family food; and, (3) feed healthy snacks such as kuli-kuli, mosa, biscuits, mango, oranges each day; Feed some fruit and vegetables each day; Make sure the baby gets enough during communal eating; Use good food hygiene (wash hands and don't give anything in a baby bottle)	Most mothers continue to breastfeed until the baby is eighteen months or so old; They don't give enough snacks and meals each day; They don't feed a diet adequate in calories or vitamins; In JIGAWA most mothers feed breastmilk, water, thin maiz pap, some family foods, but not enough calories or vitamins for baby's needs; common for grandmother to take baby for abrupt weaning	Mothers Fathers Grandmothers	Train HWs, TBAs; Support home gardens	Cost/family income; Time to prepare; Food taboos; Lack of knowledge; Lack of convenient and potable water	Baby is growing fast and gaining in intelligence -- needs lots of food and variety of food for this, including breastmilk up to two years; Good hygiene essential to prevent diarrhea; Baby will eat more and be more satisfied; Well be active, robust and powerful	Counseling Radio Television Food demonstrations
(JIGAWA only) Do not allow baby's uvula to be removed	Removal by the wazami at the naming ceremony is the tradition	Mothers Grandmothers Fathers	Train TBAs, wazamis	Belief that the operation helps the child to swallow & prevents future infections; Wazamis would loose an important function	Uvula is a natural growth, given by Allah; Avoid pain, bleeding, and chance of infection	Counseling Group meetings Drama presentations

WELLSTART INTERNATIONAL

Wellstart International is a private, nonprofit organization dedicated to the promotion of healthy families through the global promotion of breastfeeding. With a tradition of building on existing resources, Wellstart works cooperatively with individuals, institutions, and governments to expand and support the expertise necessary for establishing and sustaining optimal infant feeding practices worldwide.

Wellstart has been involved in numerous global breastfeeding initiatives including the Innocenti Declaration, the World Summit for Children, and the Baby Friendly Hospital Initiative. Programs are carried out both internationally and within the United States.

International Programs

Wellstart's *Lactation Management Education (LME) Program*, funded through USAID/Office of Nutrition, provides comprehensive education, with ongoing material and field support services, to multidisciplinary teams of leading health professionals. With Wellstart's assistance, an extensive network of Associates from more than 40 countries is in turn providing training and support within their own institutions and regions, as well as developing appropriate in-country model teaching, service, and resource centers.

Wellstart's *Expanded Promotion of Breastfeeding (EPB) Program*, funded through USAID/Office of Health, broadens the scope of global breastfeeding promotion by working to overcome barriers to breastfeeding at all levels (policy, institutional, community, and individual). Efforts include assistance with national assessments, policy development, social marketing including the development and testing of communication strategies and materials, and community outreach including primary care training and support group development. Additionally, program-supported research expands biomedical, social, and programmatic knowledge about breastfeeding.

National Programs

Nineteen multidisciplinary teams from across the U.S. have participated in Wellstart's lactation management education programs designed specifically for the needs of domestic participants. In collaboration with universities across the country, Wellstart has developed and field-tested a comprehensive guide for the integration of lactation management education into schools of medicine, nursing and nutrition. With funding through the MCH Bureau of the U.S. Department of Health and Human Services, the NIH, and other agencies, Wellstart also provides workshops, conferences and consultation on programmatic, policy and clinical issues for healthcare professionals from a variety of settings, e.g. Public Health, WIC, Native American. At the San Diego facility, activities also include clinical and educational services for local families.

Wellstart International is a designated World Health Organization Collaborating Center on Breastfeeding Promotion and Protection, with Particular Emphasis on Lactation Management Education.

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