Family-Centred Maternity and Newborn Care:
National Guidelines

— CHAPTER 7 —

Breastfeeding

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Introduction[1]

As a method of feeding infants and young children, breastfeeding is both superior and normal. It is best to breastfeed exclusively for about six months, and then to continue breastfeeding, while adding complementary foods, until at least two years of age or beyond (WHO/UNICEF, 1981; 1989; 1990; World Health Assembly, 1994; Breastfeeding Committee for Canada, 1996).

Since 1978, the World Health Organization (WHO), UNICEF, and Health Canada have made the promotion of breastfeeding a primary goal. National and provincial organizations in Canada have endorsed efforts by WHO and UNICEF to promote breastfeeding through the development of international standards, as reflected in the WHO 1981 *International Code of Marketing of Breast Milk Substitutes;* the WHO/UNICEF 1989 joint statement *Protecting, Promoting and Supporting Breastfeeding;* the WHO/UNICEF 1990 *Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding;* and the 1992 WHO/UNICEF *Baby-Friendly Hospital Initiative*. The WHO's Ten Steps to Successful Breastfeeding and the WHO Code (see Appendices 1 and 2) are evidence-based (Saadeh and Akre, 1996; Neilson et al., 1998) and form the basis for the Baby-Friendly Hospital Initiative, which has been implemented in over 12,800 hospitals worldwide. A number of Canadian health organizations have endorsed these documents as well (Canadian Hospital Association, 1994; Ontario Hospital Association, 1994). The Brome-Mississiquoi-Perkins Hospital in Cowansville, Quebec is the first hospital in Canada to be designated a Baby-Friendly Hospital, receiving this designation in 1999. At the time of publication, it is the only hospital to have this title. Appendix 3 describes the steps that need to be taken for a hospital to achieve this designation. This initiative has been endorsed as a priority focus by national and provincial organizations under the auspices of the Breastfeeding Committee for Canada (1996) (Levitt et al., 1996; Chalmers, 1997; Levitt, 1998).

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1. This chapter was adapted, with permission, from the 1996 *National Breastfeeding Guidelines for Health Care Providers,* Canadian Institute of Child Health (CICH). These *National Breastfeeding Guidelines* provide detailed reference information for health care providers working with families during the preconception, prenatal, labour and birth, postpartum, and infancy periods. This current review highlights key breastfeeding issues for the policy, practice, and systems of care. It is recommended that health care providers obtain and read these *National Breastfeeding Guidelines*.

Many factors influence a family's decisions about feeding and breastfeeding. Because of their close contact with families throughout pregnancy and the newborn period, as well as their influence on health care policies and practice, health care providers can contribute in a major way to the worldwide effort to promote breastfeeding. The critical role of breastfeeding knowledge, skills, and education for health care workers, stressed in the above position statements, is reflected in the *Ten Steps to Successful Breastfeeding* (WHO/UNICEF, 1989) (see Appendix 1).

Protecting, supporting, and promoting breastfeeding reflect the guiding principles of family-centred maternity and newborn care.

Specifically, it is essential that:

- care is based on research evidence;
- women are cared for within the context of their families — mothers, babies, and families are not separated unless absolutely necessary;
- women and their families need knowledge to make informed choices; women are empowered, through respect and informed choice, to take responsibility; and health care providers have a powerful effect on women and families;
- technology is used appropriately; and
- the importance of language is recognized.

All health care providers working with expectant or new mothers should familiarize themselves with the literature that deals with the health benefits of breastfeeding as well as the hazards of infant formula. A thorough discussion of the unique nutritional, psychological, and immunological benefits of breastfeeding is available in *National Breastfeeding Guidelines for Health Care Providers* (CICH, 1996). When considering the superiority of breastfeeding, health care providers might also find the International Lactation Consultant Association's *Summary of the Hazards of Infant Formula*[2] (1992), and the subsequent *Summary of Hazards of Infant Formula, Part 2* (1998), to be comprehensive resources.

The prevalence of breastfeeding reflects the importance placed upon it by society (Riordan and Auerbach, 1993). In effect, the non-valuing of women, children, and breastfeeding creates a fundamental obstacle to the

2. This document describes and references the following hazards of infant formula: allergic manifestations, morbidity such as infection; excesses, deficiencies, and omissions of essential ingredients in infant formula; contaminants; cost; mortality; and potential for injury.

success of women and breastfeeding. For a cultural shift to further promote breastfeeding, policy development at both the institutional and community levels is necessary (WHO/UNICEF, 1990). Health care providers need to be proactive in stimulating the development of policies. They can begin by endorsing the facts outlined in Table 7.1.

Table 7.1 Facts About Breastfeeding

- Breast milk is all that is needed to support physical growth for about the first six months of life.
- Continuing breastfeeding and adding complementary foods is the preferred method of feeding infants for the first two years and beyond.
- Women who are knowledgeable and confident about breastfeeding are more likely to succeed.
- All health care providers who have contact with expectant families have the responsibility to promote the decision to breastfeed as the healthiest choice for infant and mother.
- The attitudes and behaviours of health care providers can affect whether or not a woman will breastfeed and how well she will succeed.
- Knowledge about the practices that support breastfeeding, its assessment, and the management of potential difficulties by health professionals can affect breastfeeding success.
- Knowledge, attitudes, and beliefs about breastfeeding by the woman's family and the general public can affect a woman's choice and her subsequent breastfeeding experience.
- Undergraduate and continuing education curricula for all health care providers who work with childbearing families should include up-to-date breastfeeding content, consistent with national standards.
- Breast milk is affected by lifestyle habits such as smoking, and the use of alcohol or recreational drugs.
- Breastfeeding success is facilitated in hospital by keeping mother and infant together in a combined mother-infant postnatal care or single-room maternity care situation; there, mother and infant are cared for together by the same nurse, thus maximizing mother-infant contact and consistency of breastfeeding support.
- The distribution of formula samples and formula company literature is an unfair marketing practice that has negative effects on successful breastfeeding.
- Cesarean birth, premature birth, multiple births, or congenital abnormalities are not contraindications to breastfeeding.
- Content and language of breastfeeding education materials should reflect Canada's multicultural population.

Adapted from: CICH. *National Breastfeeding Guidelines for Health Care Providers*, 1996, p. 14.

Institutional and community policies should deal with the following issues:

- the education of health care providers (CICH, 1996, p. 10-13);
- the assessment of the success of early breastfeeding, particularly for mothers and babies discharged from hospital after fewer than 48 hours, by a skilled health care provider;
- the provision of hospital follow-up;
- community support;
- the coordination and collaboration among hospitals, community agencies, and lay and professional groups during program planning, implementation, and evaluation;
- the development of benchmarks and a system for monitoring their attainment, including such indicators as the prevalence of exclusively breastfed infants at discharge, and the prevalence of exclusively breastfed infants at four to six months of age;
- the protection of the breastfeeding rights of working women; and
- the development of an action plan for becoming "Baby-Friendly Hospitals" and "Baby-Friendly Communities."

Policies for institutions could be based on the *Ten Steps to Successful Breastfeeding* and the *WHO Code*, which form the core of the Baby-Friendly Initiative (see Appendices 1 and 2). Policies for community-based services could be based on the *Ten Steps to Baby-Friendly Communities* (see Appendix 4).

Prenatal Period

Informed Choice

By early pregnancy, most parents have decided whether to breastfeed or not. In fact, this decision is often made before the first prenatal visit or class. Prenatal intent is a strong predictor of breastfeeding outcome (Health Canada, 1994). Choice of feeding method is influenced by a number of factors, including personal experience, knowledge, culture, and attitudes of significant others. Parents most often choose breastfeeding because they believe that mother's milk is healthier for their infant than formula or cow's milk (Losch et al., 1995). However, some women do make (or change) their decision about infant feeding *during* pregnancy or during the early postnatal period.

During pregnancy, it is up to health care providers to ensure that families are given the opportunity to make well-informed decisions about infant feeding. They should explain that breastfeeding and formula feeding are not equivalent choices. They should ensure that women and their partners are informed about the benefits of breastfeeding and the risks of not breastfeeding. Some health care providers may avoid providing this information for fear of making a woman feel "guilty" if she chooses not to breastfeed. However, breastfeeding information should be a routine part of health promotion, along with such topics as regular prenatal care, maternal nutrition, use of infant car seats, and use of tobacco. Health care providers also have the responsibility to accept the choices made by families — once they have ensured that the family has received accurate information.

The approach of the health care provider to discussions with the mother and family in the prenatal period should be based on the individual needs of both mother and family. Some mothers and families will need a lot of information on breastfeeding; some will only need reassurance that they are doing the right thing; others may require an in-depth approach because of breastfeeding problems with a previous baby. (In the latter instance, a referral to someone specialized in helping mothers with breastfeeding, such as La Leche League, lactation consultants, clinics, or the maternity ward, might be useful for the health care provider as well as the mother and family.) All mothers and families should be given information about the community resources available for guidance and help — both during the prenatal period and once the baby is born. This is especially important because women often find support for breastfeeding only when it is going well. Whenever health care providers feel uncomfortable about giving advice on breastfeeding, they should refer the mother and family to one of the professionals or services mentioned above.

There are many myths about breastfeeding that might deter a woman from choosing to breastfeed her infant. Health care providers should explore these myths with women. The following myths are examples of disinformation:

Myth 1: *Many women who apparently choose to formula feed never consider breastfeeding in the first place.* The role of the health care provider is to raise the issue of breastfeeding.

Myth 2: *Breastfeeding and formula feeding are essentially equivalent in quality.* This is not the case. Breastfeeding is a superior method of infant feeding.

Myth 3: *Breastfeeding is complicated and painful.* It is common for women and babies to take one to two weeks to learn the skills of breastfeeding. However, once well established, it is much easier and less tiring than formula feeding. Breastfeeding should never hurt — if it does, something is wrong. In most cases, slight alterations in position and latch will alleviate the pain.

Myth 4: *Fathers cannot be involved with the baby if the mother is breastfeeding.* The father can do a good deal for the mother and baby besides feed the baby. For example, he can cuddle, play with, bathe, dress, and change the baby.

Myth 5: *Breastfeeding complicates family life.* Breastfeeding need not "tie a mother down." It is a question of attitude. The baby is, in fact, more portable when breastfed. The mother can go anywhere and breastfeed. Not only is "discreet" nursing possible, but "supper" is always ready.

Myth 6: *Women cannot be employed and breastfeed.* Women can combine mothering and paid employment in different ways (see page 26 on Paid Employment Outside the Home). If women choose to continue breastfeeding and return to outside work at six months or later, strategies are available to help make it easier. When early return to work is contemplated, or necessary, breastfeeding can be continued through pumping and/or partial breastfeeding. In effect, three weeks of breastfeeding are better than none, and six weeks are better than three.

Myth 7: *Breastfeeding ruins the mother's figure.* This is not true. It is pregnancy and age that cause changes in the mother's breasts. Breastfeeding helps with weight loss and involution of the uterus.

A woman's personal experiences and psychosocial support will also influence her decision to breastfeed. For example, women with supportive partners and families are more likely not only to choose to breastfeed but to succeed (Kearney, 1988; Inch, 1989). On the other hand, women who have been sexually or physically abused may not want to breastfeed. It is

critical that psychosocial assessment and counselling be an integral part of prenatal care (see Chapter 4).

It is important too for all health care facilities to be "breastfeeding friendly" and to demonstrate that with posters and information brochures. Posters and brochures are some of the visible ways of supporting and valuing breastfeeding and the breastfeeding mother. As well, descriptive literature endorsed by governments and advocacy groups is often available free of charge.[3] Of course, health care facilities should not be centres for marketing infant formula. Nor should posters, flyers, and other items from formula companies be endorsed, for they are in direct conflict with the *International Code of Marketing of Breast Milk Substitutes* and the *Baby-Friendly Hospital Initiative* and, in many cases, undermine breastfeeding. Their distribution has been shown to shorten the duration of breastfeeding (Frank and Wirtz, 1987). (Appendix 5 provides a guide for use when assessing whether print materials support breastfeeding.)

Breast Assessment

Most women's breasts and nipples are well adapted to feeding their babies. It should be noted that breasts and nipples that are of concern during the prenatal period may prove to be just fine once the baby starts nursing. (Typical of the latter situation is the mother who seems to have flat or inverted nipples during pregnancy.)

Women's breasts should be assessed as a part of prenatal care. A few situations may require extra help. For example, if a woman has true inverted nipples she may have great difficulty getting her baby to latch onto the breast. Although intervention before the baby's birth may or may not be useful, any situation with which health care providers are uncomfortable should result in a referral to health care providers experienced in dealing with breastfeeding problems (e.g. lactation consultants or breastfeeding clinics). Making such a referral may avoid problems; at the same time, it sends the message that the health care provider believes that breastfeeding is important enough to warrant the referral. A referral may be indicated in the following situations:

- inverted nipples;
- unusual breast shape or breasts that differ greatly from each other;

3. For example, Health Canada's *Breastfeeding Media Kit* and brochures, *10 Valuable Tips for Successful Breastfeeding* and *10 Great Reasons to Breastfeed*. (See Companion Documents.)

- breast reduction surgery. Breast reduction surgery often results in a decrease in the woman's capacity to produce milk, to the point where a significant majority of women cannot breastfeed exclusively. However, they can breastfeed, and the baby can receive supplementation (best done with a lactation aid). Some mothers nevertheless do manage to breastfeed exclusively (CICH, 1996).
- breast augmentation surgery. Usually, women who have had breast augmentation surgery have no more difficulty breastfeeding than women who have not had this type of surgery. However, they may be concerned, and need reassurance, about the effect of their silicone implants when breastfeeding their baby. Although the evidence shows that there need be no concern for the baby, a referral is warranted if the health care provider is uncomfortable giving that reassurance. As well, any breast surgery with a circumareolar incision will interfere with later breastfeeding. If augmentation has been done in that way, there may be difficulties.
- concern about medical indications that might result in breastfeeding being contraindicated. In most situations, the benefits of breastfeeding outweigh the risks. In situations of possible risk, the mother should make her own decision. In a few cases, breastfeeding may be contraindicated; for example, in women who have breast cancer or women undergoing chemotherapy and having diagnostic/treatment procedures using radioactive compounds. As well, when the mother is known to be HIV antibody positive, alternatives to breastfeeding are appropriate (CICH, 1996; CPS et al., 1998). Breastfeeding is contraindicated when women have a herpes simplex infection (only when the lesions involve the breast) and when women decide to continue using certain street drugs. The infant of a mother who develops chicken pox will likely become infected, regardless of feeding method. Varicella in infants is generally mild. A rare exception is the infant whose mother develops chickenpox five days before or two days after birth: such infants may develop severe infection and should be treated with varicella-zoster immune globulin (VZIG) as soon as possible (within three days). Mother and infant should be isolated together. Breastfeeding is permitted when the mother becomes non-infectious (lesions are dry) or when the infant receives the immune globulin. (See CICH 1996, p. 20, for detailed information.)

First Postnatal Days

Promoting Breastfeeding Success in the Early Days

Early, frequent, unrestricted, exclusive, and effective breastfeeding is important for the establishment of normal lactation. Skilled, consistent help from a care provider with a positive approach should be available to support this process. This is a learning experience for both mothers and babies — just as mothers learn, so do babies. The following pointers are recommended.

- **Start early.** Provide an opportunity to breastfeed during the first half-hour after birth, when babies are most alert. Create a calm, private atmosphere. Babies may take some time to orient to the breast or may only lick or nuzzle; on the other hand, they may latch and suckle well. Provide assistance with positioning, as needed. Factors that may interfere with the infant's early breastfeeding behaviour include maternal narcotics in labour, nasopharyngeal and gastric suctioning, and interruption of mother-infant contact during the first hour. Premature babies or babies who are ill should start to breastfeed as soon as their condition permits, beginning with "nuzzling" at the breast (see Special Situations, page 22).
- **Encourage frequent, unrestricted, baby-led feedings.** Babies nurse best "on cue,"[4] before they reach the crying state, and for as long and as often as they are interested. For the newborn, this is usually every two to three hours throughout the day and night (eight to twelve times, or more, in 24 hours). The infant "cues" for feeding before crying are many: they include rapid eye movements, waking, stretching, stirring, hand-to-mouth activity, and such oral activities as sucking, licking, and rooting. The length of nursing time varies with infant age and nursing style. It may take between 20 and 30 minutes to complete a feed, give or take a few minutes. It is important to reassure parents that both infant and mother may need time to become comfortable with breastfeeding.
- **Wake a sleepy baby if necessary.** Many babies do not establish effective nursing patterns until 36 to 48 hours after birth. If babies are sleepy,

4. The term "demand feeding" is commonly used by health care providers. However, the term "on cue" is preferred. The important message is to look at the baby, not the clock.

they need to be gently wakened and given the opportunity to breastfeed — at least every three hours during the day and one to two times during the night. Extra help is often needed in these situations, particularly for first-time mothers, to ensure not only that mother and infant develop the skills of positioning and latching the infant at the breast, but also that the infant is breastfeeding frequently and sufficiently effectively to establish an adequate milk supply.

- **Allow for maximum mother-baby contact.** Mothers and babies should room together in the hospital, throughout their postpartum stay, including nights. Systems such as labour/birth/recovery/postpartum room (LBRP, or single-room maternity care), or combined mother-baby postnatal care, assign nurses to care for mother-baby pairs, thereby maximizing mother-baby contact and the continuity of breastfeeding support (see Chapter 6). Mothers should be enabled to have their infants in their beds, especially if the infants are either reluctant to breastfeed or difficult to settle (McKenna and Mosko, 1994). Some hospitals may be concerned about the infant's safety; health care providers are reminded to ensure that the mother's bedrails have been raised.
- **Assist with positioning and latch.** Proper positioning and latch of the infant at breast is key to maternal comfort; adequate milk production; infant growth; and the prevention of sore nipples, engorgement, and breast infections. As they find out what works best for them, mothers may need assistance in learning several nursing positions: conventional and alternate arm (modified cradle) holds, lying, and the football hold. The alternate arm (modified cradle) hold is usually the easiest to learn. Breastfeeding should be comfortable as well. There may be some initial discomfort as the baby latches on, but this should not persist (see CICH, 1996, p. 67-71). Care providers who are skilled in the assessment of maternal and infant positioning, latch, and suckle of the infant at breast should be available to the mother-infant pair throughout the early postnatal period. A standardized approach to assessment should be used to ensure that parents receive consistent advice.
- **Ensure exclusive breastfeeding.** Breastfeeding babies should receive only breast milk, without other foods and fluids, unless there is a medical indication (see Special Situations, page 22). Supplementation interferes with milk production. In addition, babies should not routinely use soothers and pacifiers.

How to Tell if the Baby Is Getting Enough Milk

Concern that the baby is not getting enough milk is one of the most frequent reasons for stopping breastfeeding. Mothers need reassurance — not only that breastfeeding is the best and most natural way to feed their baby, but also that they can produce enough milk. However, failure to establish an effective latch during the first week can lead to infant dehydration or failure to thrive. All parents should know how to tell when breastfeeding is going well and when to seek help.

Evaluating whether or not breastfeeding is going well involves assessing a number of criteria — the effectiveness of the feedings, the frequency of feedings, the baby's stools and urine, and the baby's growth. Parents can be reassured that babies are getting enough milk and breastfeeding is going well if the following signs are present:

- The infant is nursing frequently (approximately eight to twelve times a day) and effectively. Effective nursing means that the baby seems hungry at the beginning of a feeding, the mother can hear the baby swallowing or a quiet "caw" sound during feeding, and the baby becomes more satisfied toward the end of the feeding. Also, the mother's breasts will feel full before feedings and softer after. By day three to five, once the infant is getting increased quantities of milk parents may be taught to look for an open-pause-suck type of feeding pattern.
- The baby produces soft or liquid stools, several times per day. By day three to four, all meconium should be passed. Stools may be yellow or greenish and should not be dry or hard. After the first month, stools may become less frequent.
- Urine is pale and odourless. In the first three days, one to two wet cloth diapers per day is common, along with (or without) the occasional brick red staining. By days four to six, as milk production increases, six or more wet cloth diapers per day is normal. (It is difficult to tell when disposable diapers are wet. A tissue placed in the disposable diaper can help in the determination. Cloth diapers can be used if parents are unsure whether or not the baby is voiding.)
- The baby is alert and growing.

Guidelines for taking a feeding history are found in Appendix 6.

WHEN TO GET HELP

All parents should know when to get immediate breastfeeding help. They should be made aware of the following signs. While it is possible that a healthy breastfeeding baby may have a few of these signs, a thorough assessment of the situation is still warranted, especially in the early days and weeks, to determine if the baby is feeding effectively.

- The baby has fewer than two soft stools daily, during the first month.
- The baby has dark urine and/or fewer than one or two wet diapers daily for the first three days, or fewer than six wet diapers by days four to six.
- The baby is sleepy and hard to wake for feedings.
- The baby is feeding less than approximately eight times in 24 hours.
- The mother has sore nipples that have not improved by day three to four.
- The mother has a red, painful area of the breast accompanied by fever, chills, or flu symptoms.

Hospitals and other agencies should produce an easy-to-read handout or sign, listing these indicators, for parents to post on their wall or refrigerator.

Weight loss and subsequent gain is one indication of how well breastfeeding is going (Cooper et al., 1995; Lawrence, 1995; Meek, 1998; Tounsend and Merenstein, 1998). However, it should not be considered in isolation, and it is crucial to assess the effectiveness of the baby's feeding at the breast, as well as his or her stools, urine and behaviour. It is often difficult to accurately assess differences in the baby's weight in the early days of life, due to differences in scales. Babies should always be weighed unclothed, without a diaper. The following guidelines are suggested in the literature. An initial weight loss during the first 10 days of up to 10 percent of birth weight can be normal. However, during the first week a weight loss of 7 percent warrants a close assessment of the breastfeeding situation. Babies return to birth weight by two to three weeks of age, and gain one-half to one ounce per day for the first few months. A checkup to assess and weigh the baby is recommended by one week of age or earlier by a skilled and knowledgeable health care provider, depending on length of hospital stay (see Chapter 6).

Many babies go through several growth spurts during which they will nurse more frequently (i.e. 10 to 12 times a day), the purpose being to increase mother's milk supply to meet their new needs. Mothers may need reassurance that they can and will produce enough milk to meet the baby's

needs during these times of growth. They should also be reassured that the baby's emptying of the breast actually promotes milk production.

Parents should be given written information identifying the signs of successful breastfeeding and when to get help. (A sample of such a handout is found in Appendix 7.) They should also be given a list of sources of breastfeeding help available in the community. This might include the public health department; the parent help line; breastfeeding support clinics, hospital clinics, or drop-in centres; the local La Leche League; private lactation consultants; and the physician or midwife. Some hospital mother-infant units also offer 24-hour telephone and/or on-site breastfeeding help.

Nutrition of the Mother When Breastfeeding

It is recommended that breastfeeding mothers eat a balanced diet, based on a variety of healthy foods. They should also eat as their appetite dictates. *Canada's Food Guide to Healthy Eating* (Health Canada, 1997) is meant to guide mothers in eating the requisite wide variety of healthful foods.

The following are a few practical considerations:

- Encourage the mother to eat (or drink) three to four servings of milk products, or other good sources of calcium, per day.
- Encourage the mother to drink enough fluids to satisfy thirst. Many nursing mothers find that they need more fluids than usual.
- During lactation, explore the mother's regular diet and traditional foods with her to determine how fibre, fluids, milk products, or other sources of calcium, vitamins, and minerals are included. In some cultures, food is not classified into four food groups. The concept of eating from the four food groups for a balanced diet may be unfamiliar, as well as culturally inappropriate.
- Ensure that the mother's vegetarian diet is balanced; a nutritionally adequate diet for breastfeeding includes milk and milk products, as well as meat alternatives such as eggs, beans, lentils, nuts, and tofu. If the mother drinks fewer than two cups of milk per day, other sources of calcium, vitamin D, and vitamin B_{12} are needed. If not fortified, soy milk, although it provides protein and calcium, is a poor source of calcium and vitamin D. Also, if all animal products are eliminated, alternative sources of calcium, riboflavin, vitamin B_{12}, vitamin D, zinc, and iron are required.

Many women are discouraged from breastfeeding because of incorrect advice about nutrition. The following are some of the myths:

Myth 1: *A breastfeeding mother has to avoid, or eat, certain foods.* A breastfeeding mother should try to eat a balanced diet. However, she need not eat any special foods or avoid certain foods. Furthermore, a breastfeeding mother need not drink milk in order to make milk.

Myth 2: *A breastfeeding mother has to eat more in order to make enough milk.* Even women on very low calorie diets usually make enough milk, at least until their caloric intake has been critically low for a prolonged period of time. Generally, babies will get what they need. Although some women worry that if they eat poorly for a few days this will affect their milk, there is no need for concern. Such variations will not affect the quantity or quality of the milk supply. Traditional wisdom has dictated that breastfeeding women need to eat 500 extra calories a day. But this is not necessarily so for all mothers. Some women do eat more when they breastfeed; others do not; some even eat less. None of these practices seems to harm the mother, baby, or milk supply. The bottom line is that the mother should eat a balanced diet, dictated by her appetite.

Myth 3: *A breastfeeding mother must drink lots of fluids.* The mother should drink according to her thirst. Although some mothers feel thirsty all the time, many others drink no more than usual. In fact, the mother's body knows if she needs more fluids, and tells her so by making her feel thirsty. Drinking excessive fluids can decrease milk supply.

Myth 4: *Breastfeeding is contraindicated if a mother smokes or drinks alcohol.* Although it is important that women be supported in all attempts to stop or reduce smoking, breastfeeding is still the best choice even if smoking continues. Moreover, while heavy consumption of alcohol has been shown to interfere with milk supply and to harm the breastfed infant, "light" social drinking is commonly thought to be compatible with breastfeeding (CICH, 1996).

Shortened Length of Hospital Stay

IMPLICATIONS FOR BREASTFEEDING

The trend toward shorter hospital postnatal stays has important implications for breastfeeding outcomes and follow-up. Flexibility in the timing of the hospital discharge is key, based as it is on the individual circumstances of both mother and baby and the availability of community follow-up services. Some women may be ready and prefer to return home with their babies several hours after birth; others may not meet the discharge criteria for several days or longer. No matter when mothers and babies go home, they should be assessed for their follow-up needs.

Establishment of lactation in the first three to five days is vital to the well-being of the newborn. Early contact with qualified professionals is recommended. Support and assessment of both mother and infant should be undertaken to promote effective patterns of feeding and to prevent such problems as the infant's dehydration, hypoglycemia, exaggerated physiologic jaundice, lethargy, and failure-to-thrive; and the mother's lowered self-esteem, guilt, perception of failure, and even depression.

The normal newborn may take from birth to 48 hours to establish feeding; that is, to show regular cues for feeding and to consistently succeed at latching and suckling at the breast with a minimum of help. With effective breastfeeding, the onset of lactation (i.e. an increase in maternal milk supply) usually takes two to three days. Consistent, appropriate and professional support during this crucial early period can make a profound difference in long-term breastfeeding success.

SUGGESTED CRITERIA FOR HOSPITAL DISCHARGE AND FOLLOW-UP GUIDELINES

A number of criteria for discharge have been proposed (CPS, 1996; SOGC, 1996). Specific breastfeeding discharge criteria include:

- establishment of "effective breastfeeding"; that is, two consecutive feedings managed independently by mother and baby, in which baby has latched on and suckled well at each breast;
- capacity of the parent(s) to identify early signs of poor feeding, dehydration, when to seek help, and the community resources to get that help (see Appendix 7);

- development of realistic plans for follow-up, with consideration given to such accessibility factors as transportation, distance, child care coverage, language capabilities, and telephone access (see below);
- determination that the infant has lost less than 7 percent of birth weight at the time of discharge, if within the first week; and
- determination of an appropriate health status for discharge for the mother.

Follow-up should be provided by a health care provider (nurse, physician, midwife) who is knowledgeable, skilled, and experienced in breastfeeding assessment and counselling. If discharge occurs *prior to 48 hours after birth:*

- All discharge criteria (including the above conditions) must be met.
- The family must be contacted by telephone, or a home visit made within 24 hours of discharge.
- The mother and infant should be physically examined by a skilled health care provider within 48 hours of discharge.
- The newborn must be physically examined, again by a skilled practitioner, at seven to ten days of age.

Many mothers may be exhausted, or live a long distance from their care providers, hospitals, and/or clinics. The guidelines for follow-up within 48 hours of discharge must therefore reflect the provision that follow-up will be provided in the family's home, if appropriate.

If discharge is at *48 hours or more after birth:*

- The discharge criteria must be met *or* any complications stabilized, concerns identified and addressed, appropriate care initiated, and follow-up ensured.
- The newborn must be examined by a skilled practitioner by seven to ten days of age (or earlier, if problems have been identified).
- A follow-up contact by telephone or a home visit within 48 hours is highly desirable.

Follow-up is especially important for mothers and babies discharged before 48 hours after birth. The reason is that it may be difficult to assess the adequacy of breastfeeding, along with certain other aspects, before that period of time has elapsed.

Potential Difficulties

Care providers should be knowledgeable about the prevention, assessment, and treatment of the following potential breastfeeding problems:

- breast engorgement
- sore nipples
- plugged ducts
- breast infection
- candidiasis/thrush
- leaking
- overactive milk-ejection reflex (CICH, 1996).

Neonatal Jaundice

It is rarely appropriate to interrupt breastfeeding for neonatal jaundice. Two distinct conditions are associated with jaundice and breastfeeding: "poor breastfeeding" jaundice, and the "breast milk jaundice syndrome."

Poor breastfeeding jaundice refers to an exaggeration of normal physiologic jaundice. Caused by infrequent and/or ineffective breastfeeding, it results in delayed passage of meconium and low caloric intake. Prevention includes early, frequent, and unrestricted breastfeeding: a good latch; maximum mother-infant contact; minimal maternal intrapartum drugs; and anticipatory guidance for parents. Treatment includes increasing the frequency and effectiveness of feedings to a minimum of eight in 24 hours, thereby upping the infant's intake and stimulating breast milk production. Inappropriate supplementation, particularly when given with an artificial nipple, can interfere with the establishment of breastfeeding. Strategies to wake a sleepy baby include skin-to-skin contact with the mother; enticement with expressed breast milk; and tactile stimulation of the infant's palms, head, and feet during feeding.

Breast milk jaundice syndrome is an uncommon condition. Affecting 2 to 4 percent of breastfeeding newborns and appearing toward the end of the first week, it peaks between approximately days 10 to 15 and may last 3 weeks or longer. Because the condition is benign in infants who are otherwise healthy, it is not necessary to interrupt breastfeeding. However, it is essential that other conditions such as hypothyroidism be ruled out so that breast milk jaundice is not confused with conditions that may require treatment.

Acceptable Medical Reasons for Supplementation

The indications for supplementation are few in number. Suggested indications for giving fluids or food in addition to, or in place of, breast milk — as outlined in UNICEF's 1992 *Baby Friendly Hospital Initiative and Programme Manual* — are the following:

- infants with documented hypoglycemia that *does not improve with increased effective breastfeeding*;
- infants whose mothers are severely ill (e.g. psychosis, eclampsia, shock);
- infants with certain inborn errors of metabolism;
- infants with dehydration that *does not improve after breastfeeding*; and
- infants whose mothers are taking medication contraindicated with breastfeeding (e.g. cytotoxic drugs, radioactive drugs).

Infants who are too small or ill to receive fluids orally may initially require total or partial fluid therapy intravenously. Maintenance of gastrointestinal function, to introduce at least minimal enteral feedings early on, is beneficial.

When breastfeeding is temporarily delayed or interrupted and/or supplementation is *medically* indicated, fresh expressed mother's milk, if available, should be used. Bottle feeding, which may interfere with the infant's ability to suckle well at the breast, can be avoided by using a number of alternative methods such as the use of a lactation device, cup feeding, finger feeding, or a spoon or dropper. When breastfeeding is delayed or interrupted, mothers should be helped to establish lactation through regular milk expression with breast pumps.

Special Situations

The nutritional, immunological, and psychosocial benefits of breastfeeding are vital to the well-being of the premature or sick infant. As well, breastfeeding is desirable and possible in such special situations as preterm births, multiple births, and babies with congenital abnormalities. In fact, in these situations, where the risk of illness is even higher than for the normal term infant, breast milk can help in preventing complications. Maternal breast milk has also been shown to be the single most effective avenue for preventing necrotizing enterocolitis (NEC) in the preterm infant (CICH, 1996). However, special breastfeeding support may be required in these cases and should be formally acknowledged in the calculation of workload for nursing staff.

Obstacles to breastfeeding the preterm infant can be overcome in neonatal intensive care units. These units should:

- minimize separation of mothers and babies;
- provide private facilities for feeding and pumping;
- provide accurate, timely information regarding breastfeeding to mothers and families;
- ensure that the health care providers working in the unit have the knowledge and skill to help mothers successfully provide breast milk for their infants;
- teach and assist mothers with expressing and storing breast milk (see Appendix 8);
- provide mothers with names and phone numbers of community breastfeeding support services, other mothers of preterm infants, and/or La Leche League; and
- provide mothers with information about where to get supplies and pumps.

Often, breast pumps are not accessible to women with minimal financial resources. Hospitals and community agencies should work together to make pumps available on an equitable basis to all women.

For the premature infant, breastfeeding has been shown to be less physiologically demanding than bottle feeding (Meier, 1988). Preterm infants can begin to feed at the breast as soon as they can be stable outside the isolette for short periods and are able to coordinate sucking and swallowing — often by 32 weeks' gestation. However, the baby can approach the breast to lick or nuzzle before this time. "Kangaroo care" provides early preparation for breastfeeding. Breastfeeding the preterm infant often proceeds through several stages — deciding to breastfeed, establishing a milk supply, gavage feeding of expressed breast milk (EBM), in-hospital breastfeeding (early and later cue-based feeding), and following up after discharge (Meier and Mangurten, 1993).

Twins, triplets, and even quadruplets can be successfully breastfed, either entirely by breast or with added supplements, preferably expressed breast milk. For the first few months, much time and energy is required to feed these multiple babies, regardless of the feeding method chosen. If a mother plans to breastfeed only, it is important to let the babies nurse frequently. The build-up of a good supply of milk is thus ensured (CICH, 1996).

In most instances, with adequate support, a mother can successfully breastfeed a baby born with a disability or special problem. Health care providers should provide mothers and families with information about support agencies and groups in their community.

Medications and Breast Milk

Given the benefits of breastfeeding, it is rarely appropriate to discontinue breastfeeding due to maternal medication. Information about the transfer of specific drugs into human milk and the potential effects on the infant is constantly expanding. It is therefore difficult to maintain up-to-date lists of drugs and their effects on breastfeeding. However, the following points should be considered:

- Most maternal drugs pass into human milk at a level which averages less than 1 percent of the maternal dose.
- Very few maternal drugs are contraindicated with breastfeeding.
- For the limited number of drugs that are contraindicated or should be used with "caution," the following caveats apply:
  - a safe alternative medication can usually be found;
  - drugs listed as "cautionary" can be used if the infant is simultaneously monitored;
  - drugs considered safe for use in children, employed at the lowest possible dose, are the safest;
  - drugs with shorter half-lives can be chosen;
  - slow-release drugs should be avoided; and
  - drugs should be individually assessed so that, as much as possible, their peak concentration in breast milk does not coincide with a feeding (CICH, 1996).

The question to be considered is whether the enormous benefits of breastfeeding to both baby and mother outweigh the risks of the infant's exposure to the drug.

The 1994 American Academy of Pediatrics statement — *The Transfer of Drugs and Other Chemicals into Human Milk* — is the most commonly used reference in this area. A number of other references are recommended as well; for example, Thomas Hale's *Medication and Mothers' Milk* (1999). The *National Breastfeeding Guidelines for Health Care Providers* (CICH, 1996) gives detailed information regarding drugs that are contraindicated during breastfeeding and drugs to be used with caution. Drug information

centres are also excellent sources of information concerning drugs in breast milk. Examples are the Motherisk Clinic in Toronto at The Hospital for Sick Children (Tel.: 1-877-327-4636, Fax: [416] 813-7562, http://www.motherisk.org); the Breastfeeding Collaborative Program, The Hospital for Sick Children (416) 813-5757; and the Lactation Fax Hotline (Thomas Hale; Fax: [806] 356-9480). Up-to-date information can be accessed via fax from this hotline; a registration fee applies.)

As well, the special section on drugs and breast milk in the Canadian *Compendium of Pharmaceuticals and Specialties* (Canadian Pharmacists Association, 1998) contains general information of possible interest. However, the individual drug monographs are usually inadequate as a source of information about drugs and lactation; they are limited and often overly restrictive.

Late Postnatal Period

Reasons for Stopping Breastfeeding

The main reason for early termination of breastfeeding is the perception of insufficient milk. Other reasons for quitting, during the first six weeks, include sore nipples, engorgement, problems with technique, and maternal fatigue. Later, from four to six months, the mother's paid employment outside the home may become a reason for stopping.

All breastfeeding parents should understand the principle of "supply and demand"; that is, mothers will produce enough milk in direct response to the baby's frequent suckling. This is an important time for the mother to attend to her own rest and nutrition needs, while at the same time focusing on infant feeding. (See the *National Breastfeeding Guidelines for Health Care Providers* [CICH, 1996] advice about taking an infant-feeding history and responding to common parental concerns about milk inadequacies.)

It is important, too, that parents have an understanding of the infant growth spurt phenomenon. Depending on the situation and the time of hospital discharge, babies should have a follow-up assessment by seven to ten days of age or earlier.

Many factors interfere with milk supply. The following are among the most common:

- separation of mothers and babies;
- infrequent feedings;
- restricted feeding duration;
- poor positioning and latching, resulting in ineffective suckling;
- sleepy babies;
- supplementation for non-medical reasons;
- use of a soother or pacifier to delay feedings;
- breast engorgement and sore nipples;
- use of nipple shields; and
- maternal fatigue.

Vitamin and Mineral Supplementation

The Canadian Paediatric Society recommends that breastfed infants receive vitamin D (10 μg or 400 IU) daily, until weaned. This recommendation is the subject of ongoing controversy. Although it is recognized that some babies will be at risk for vitamin D deficiency, the controversy revolves around whether *all* babies should receive supplementation. As well, fluoride supplementation is not recommended for infants under six months. The recommendation is that infants between the ages of six months and two years, living in areas where the household water supply contains less than 0.3 ppm (μg/L) fluoride, should receive daily supplementation of 0.25 mg fluoride. However, where the principal drinking water source contains 0.3 ppm (μg/L) or more fluoride, supplementation is not recommended (CPS et al., 1998). In other words, excessive intake of fluoride is to be avoided. As for iron supplementation, full-term infants who are breastfed do not need extra iron until the age of six months. After that, for healthy, term infants, the iron in solid foods usually provides sufficient intake.

Paid Employment Outside the Home

Since time began, women have skilfully combined childbearing, breastfeeding, and working. Breastfeeding and working only became problematic when the place of employment began to separate mothers and children in early childhood. As increasing numbers of women work outside the home, Canadian society faces challenges related to breastfeeding and childbearing. Wherever mothers work, be it at home or away, community support will

benefit families with children. The children themselves benefit from consistent, loving care — the first three years being especially critical. And breastfeeding is the optimal way to provide the best nutrition, health, and secure emotional attachment (Jones and Green, 1996, p. 19). Family policies should be developed with these principles in mind.

The first step is to help families have a real choice between staying at home or working outside of the home so that the return to work will not be influenced by economic pressure only. When women do work outside the home, it is in the best interest of Canadian children to see that mothers are supported in pursuing a variety of options. For example, they might take an extended period of time off when the children are young, before returning to paid employment; they might "sequence" their careers; or the workplace might be made more flexible to accommodate the needs of mothers, fathers, and children (Jones and Green, 1996, p. 19).

In all communities, therefore, action is needed to:

- give families real choices about the need to work outside the home, using such means as maternal and parental leave policies and tax incentives;
- create public awareness of the rights of women to work and breastfeed;
- facilitate and protect cultural and traditional practices that are supportive of the breastfeeding mother working in or away from home;
- involve community leaders and other groups in the development of the social support needed for women to combine breastfeeding and work;
- educate employers and others about the importance of breastfeeding and the need to provide a supportive work environment;
- increase awareness of national legislation that protects the breastfeeding rights of all women; and
- recognize workplaces that are mother and baby-friendly (Jones and Green, 1996, p. 21).

Appendix 9 outlines the "Ten Steps to Creating a Mother-Friendly Workplace" (Jones and Green, 1996).

Mothers whose breastfeeding becomes well established are more likely than others to continue breastfeeding after returning to paid employment or school. When a mother can delay regular separation from her baby until the baby is four months old and/or return to work on a part- rather than a full-time basis, she is more likely to maintain her milk supply and her child is more likely to remain interested in breastfeeding. Although many women

returning to full-time work earlier than four months after birth are able to maintain their breastfeeding relationship, their incidence of premature introduction of solids and of weaning is much higher than for those returning later (Jones and Green, 1996, p. 19; Auerbach, 1987).

Women choosing to continue to breastfeed on their return to work follow many different pathways to success. Strategies used to combine breastfeeding and employment vary, depending on the mother's beliefs, goals, and the support available. Whereas some women will arrange to nurse their babies during their breaks, others will pump or express milk during the work day in order to maintain their milk supply and store milk for subsequent feedings. (See Appendix 8 for advice for mothers regarding the collecting and storing of breast milk.) Other women will partially wean their baby from the breast and provide artificial milk during their absence. Babies commonly rearrange their pattern so as to nurse more frequently during the hours that the mother is available and to sleep more often during her absence. Families need to understand that breastfeeding is most likely to continue when, to the best of their ability, they limit the separation time between the mother and baby, assist the mother to regularly express or pump her milk, and provide maximum support for the mother to focus on meeting her baby's needs (Jones and Green, 1996, p. 20).

The Process of Weaning

For about the first six months, breast milk is all that is needed to support growth. Ideally, the baby will continue to benefit from breastfeeding for the first year or so. Indeed, both mother and baby receive nutritional, immunological, emotional, and other benefits for as long as breastfeeding continues.

Weaning is the process whereby infants move away from complete dependence on their mother's milk. The ideal time to wean is when mother and baby are both ready. Because the two parties may be ready at different times, weaning can be either more "baby-led" or more "mother-led." Nevertheless, at whatever age the weaning occurs, it is more comfortable for the mother and easier for the baby if the weaning is gradual. (See CICH, 1996, for tips on weaning.)

Follow-up Support Services

Follow-up support services can be especially useful for breastfeeding families. These services include:

- home visits by public health nurses;
- parent "hot-lines" (i.e. telephone information services);
- breastfeeding and/or well-baby clinics;
- breastfeeding and/or well-baby drop-in centres;
- La Leche League and lay/peer support groups;
- breastfeeding and/or infant care classes;
- advice of physicians who are supportive and knowledgeable;
- advice of certified lactation consultants; and
- follow-up phone calls from hospital clinics, community nurses, and physicians (see Chapter 6).

A list of all breastfeeding support services should be compiled for each community. Breastfeeding committees or formalized networks have been successful in developing, coordinating and maintaining consistent breastfeeding promotion, support, and protection initiatives at the local, provincial, and national level.

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APPENDIX 1

Ten Steps to Successful Breastfeeding

Every facility providing maternity services and care for newborn infants should:

Step 1:	Have a written breastfeeding policy that is routinely communicated to all health care staff.
Step 2:	Train all health care staff in skills necessary to implement this policy.
Step 3:	Inform all pregnant women about the benefits and management of breastfeeding.
Step 4:	Help mothers initiate breastfeeding within a half-hour of birth.
Step 5:	Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
Step 6:	Give newborn infants no food or drink other than breast milk, unless medically indicated.
Step 7:	Practise 24-hour rooming-in.
Step 8:	Encourage breastfeeding on cue.
Step 9:	Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
Step 10:	Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Source: WHO/UNICEF. *Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services.* A Joint WHO/UNICEF Statement, Geneva, 1989.

APPENDIX 2

Summary of the International Code of Marketing of Breast Milk Substitutes

- No advertising of these products to the public.
- No free samples to mothers.
- No promotion of products in health care facilities.
- No company mothercraft nurses to advise mothers.
- No gifts or personal samples to health workers.
- No words or picture idealizing artificial feeding, including pictures of infants, on the labels of the products.
- Information to health care workers should be scientific and factual.
- All information on artificial infant feeding, including the labels, should explain the benefits of breastfeeding, and the costs and hazards associated with artificial feeding.
- Unsuitable products, such as sweetened condensed milk, should not be promoted for babies.
- All products should be of a high quality and take account of the climatic and storage conditions of the country where they are used.

Source: World Health Assembly. *WHO/UNICEF International Code of Marketing of Breast Milk Substitutes*. Geneva, 1981.

APPENDIX 3

Hospital/Maternity Facility Guidelines for the Implementation of the WHO/UNICEF Baby-Friendly Hospital Initiative (BFHI) in Canada

SELF-APPRAISAL PROCESS

The first significant step on the road toward full Baby-Friendly Hospital status is completion of the Hospital Self-Appraisal Tool, included in Part 2 of the BFHI Manuals (see Appendix A). Parts 1 and 2 of the BFHI Manuals contain information on evaluating the *Ten Steps to Successful Breastfeeding* as well as a questionnaire enabling a hospital/maternity facility to review its practices. This initial self-appraisal facilitates analysis of the practices that encourage or hinder breastfeeding. Hospitals/maternity facilities may request information and clarification from the respective Provincial/Territorial Baby Friendly Initiative (BFI) Implementation Committee or the Breastfeeding Committee for Canada (BBC)* at any time.

It may be helpful for the hospital/maternity facility to develop a multidisciplinary committee to address protection, promotion and support of breastfeeding.

The role of this committee might include:

1. acquisition of resources for the BFHI (see Appendix A);
2. education of administrators, colleagues, and consumers about the BFHI;
3. review of breastfeeding initiation and duration rates;
4. review of practices and development of an action plan with time lines to address those practices which require change using the minimum standards of the *Ten Steps to Successful Breastfeeding*; and
5. work with the hospital/maternity facility and community to ensure compliance with the *International Code of Marketing of Breast Milk Substitutes.*

Having accomplished all of the above, the hospital/maternity facility may complete the WHO/UNICEF Hospital Self-Appraisal Tool.

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* The BCC will assume the responsibility for BFHI implementation in a specific province or territory until the respective BFI Implementation Committee is in place.

PRE-ASSESSMENT

If the results of the self-appraisal tool are primarily positive, the hospital/maternity facility requests the Provincial/Territorial BFI Implementation Committee to arrange a pre-assessment. A pre-assessment is required as a mechanism for assuring a more successful external assessment. A pre-assessment consists of an intensive, abbreviated evaluation by a BFHI assessor assigned in collaboration with the BCC. It is strongly recommended that this person has no past or current affiliation with the hospital. The pre-assessment would include detailed discussions with staff, examination of hospital facilities and systems, and review of available documentation regarding training programs, prenatal education, breastfeeding and BFHI policies, etc. A pre-assessment will typically take one full day.

THE PROCESS OF PRE-ASSESSMENT

1. When the hospital/maternity facility considers it is ready for a pre-assessment, a request is submitted to the Provincial/Territorial BFI Implementation Committee.
2. The Provincial/Territorial BFI Implementation Committee sends the hospital/maternity facility a pre-assessment contract in which the hospital/maternity facility agrees to cover all costs of the pre-assessment, as outlined in *Financial Guidelines for a Baby-Friendly Hospital Initiative (BFHI) Pre-Assessment in Canada.*
3. The Provincial/Territorial BFI Implementation Committee forwards the signed contract and completed hospital self-appraisal tool, accompanied by an administrative fee of $100, to the BCC with a request to arrange a pre-assessment.
4. In consultation with the Provincial/Territorial BFI Implementation Committee, the BCC will select an Assessor to conduct the pre-assessment. See *Guidelines for WHO/UNICEF Baby-Friendly Hospital Initiative (BFHI) Assessors and Master Assessors in Canada.*
5. Upon completion, the assessor will submit a complete pre-assessment report to the hospital/maternity facility, the Provincial/Territorial BFI Implementation Committee and the BCC.
6. Should any areas of weakness be identified in the pre-assessment report, the Provincial/Territorial BFI Implementation Committee will provide expert advice to the hospital/maternity facility to address these weaknesses.

EXTERNAL ASSESSMENT

Over a period of two to four days, a team of assessors, under the direction of a master assessor, conducts an extensive assessment of hospital/maternity facility practices and policies and does appropriate interviews as outlined in the WHO/UNICEF Global Hospital Assessment Criteria. The external assessors selected must have no past or current affiliation with the hospital. Random interviews of both staff who work in, and mothers who have delivered in, the hospital/maternity facility will take place. Practices in labour and delivery, postpartum, and special care nurseries will be observed.

THE PROCESS OF EXTERNAL ASSESSMENT

1. If the results of the pre-assessment are primarily positive, the hospital/maternity facility requests the Provincial/Territorial BFI Implementation Committee to arrange an external assessment.
2. The Provincial/Territorial BFI Implementation Committee sends the hospital/maternity facility an external assessment contract in which the hospital/maternity facility agrees to cover all costs of the external assessment, as outlined in *Financial Guidelines for a Baby-Friendly Hospital Initiative (BFHI) External Assessment in Canada.*
3. The Provincial/Territorial BFI Implementation Committee forwards the signed contract, written materials required by the WHO/UNICEF Global Hospital Assessment Criteria (see Appendix B) and the pre-assessment report, accompanied by an administrative fee of $400, to the BCC with a request that an external assessment be arranged.
4. In consultation with the Provincial/Territorial BFI Implementation Committee, the BCC will select a master assessor and a team of assessors to conduct the external assessment. See *Guidelines for WHO/UNICEF Baby-Friendly Hospital Initiative (BFHI) Assessors and Master Assessors in Canada.*
5. Upon completion, the external assessment team will meet with the hospital/maternity facility to discuss preliminary findings. The master assessor will submit a complete external assessment report to the Provincial/Territorial BFI Implementation Committee, which will forward it to the BCC.

6. Following a review of the external assessment report, the BCC, in consultation with the Provincial/Territorial BFI Implementation Committee, will decide if the hospital/ maternity facility will receive Baby-Friendly designation. The Provincial/Territorial BFI Implementation Committee will notify the hospital/maternity facility of the results of the assessment and will send the facility a copy of the external assessment report. A certificate will be awarded and the hospital/ maternity facility will be added to the BCC database of designated Baby-Friendly facilities in Canada.
7. Every two years following receipt of the Baby-Friendly designation, the hospital/maternity facility will report to the Provincial/Territorial BFI Implementation Committee. The purpose of the report will be to ensure ongoing compliance with the WHO/UNICEF Global Hospital Assessment Criteria. The format of the report will be determined by the Provincial/Territorial BFI Implementation Committee.
8. Every five years following receipt of the Baby-Friendly designation, the hospital/maternity facility will undertake a re-assessment, involving a subsequent contract and additional costs to the hospital in order to retain the Baby-Friendly designation.
9. A hospital/maternity facility which does not achieve Baby-Friendly designation may provide the Provincial/Territorial BFI Implementation Committee, within 90 days of receipt of the external assessment report, with a plan of action and timetable to meet the WHO/UNICEF Global Hospital Assessment Criteria.
10. A Certificate of Commitment will be issued to the hospital/maternity facility upon receipt of the plan of action and timetable.
11. If the hospital/maternity facility does not achieve Baby-Friendly designation following the external assessment, the Provincial/ Territorial BFI Implementation Committee will provide expert advice to address weaknesses identified in the external assessment report to the hospital/maternity facility for a maximum of four years from the date of the original contract.

APPENDIX A

The following resources are available from the sources listed:

1. *BFHI Manuals 1 and 2;* and
2. *Breastfeeding Management and Promotion in a Baby-Friendly Hospital*: *The 18-Hour Course*
   UNICEF Canada
   433 Mount Pleasant Road
   Toronto, Ontario M4S 2L8
   Tel.: (416) 482-4444 Fax: (416) 482-8035
   email: secretary@unicef.ca
3. *Protecting Infant Health: A Health Workers' Guide to the International Code of Marketing of Breast-Milk Substitutes*. 8th ed.
   INFACT Canada
   6 Trinity Square, Toronto, Ontario M5G 1B1
   Tel.: (416) 595-9819 Fax: (416) 595-9355
   email: infact@ftn.net

APPENDIX B

The following written materials, required by the WHO/UNICEF Global Hospital Assessment Criteria, certified by an officer of the hospital/maternity facility, must accompany the signed contract for external assessment:

1. A written breastfeeding policy covering all Ten Steps to Successful Breastfeeding as defined in the WHO/UNICEF Baby-Friendly Hospital Initiative, including date of implementation.
2. A written curriculum for training in lactation management given to all hospital staff who have any contact with mothers, infants and/or children (including a description of how instruction is given and a training schedule for new employees).
3. An outline of content to be covered in antenatal breastfeeding education received by pregnant women.
4. All educational materials on breastfeeding provided to pregnant women and new mothers.

Breastfeeding Committee for Canada (BCC)
Box 65114, Toronto, Ontario M4K 3Z2
Fax (416) 465-8265
email: bfc@istar.ca
http://www.geocities.com/HotSprings/Falls/1136/

APPENDIX 4

Ten Steps to Baby-Friendly Communities

Step 1:	UNICEF designates all community hospitals delivering maternity services as "Baby Friendly."
Step 2:	All health care facilities promote, protect, and support breastfeeding.
Step 3:	Health care institutions work together to increase the availability of breastfeeding support.
Step 4:	The community is informed as a whole about the benefits of breastfeeding and the risks of not breastfeeding.
Step 5:	Attitudes are addressed within the community that perceive bottle feeding as the norm and provide education directed at changing these attitudes.
Step 6:	Communities recognize the importance of supporting the mother-baby relationship.
Step 7:	Education is provided about breastfeeding as the natural and normal method of infant feeding.
Step 8:	All public and private facilities, including parks and recreation centres, restaurants, and stores, support the need to be mother- and baby-friendly.
Step 9:	Work settings promote breastfeeding through the provision of extended maternity leave and/or provide facilities for mothers to express milk and maintain their breastfeeding relationship.
Step 10:	Support is given to women who do not meet their breastfeeding goals so as to resolve their feelings and to find the most suitable alternatives.

Adapted from: Jones F and Green M. *British Columbia Baby-Friendly Initiative: Resources Developed Through the BC Breastfeeding Resources Project*. Vancouver: BC Baby-Friendly Initiative, 1996.

APPENDIX 5

Infant Nutrition Resources: Assessment Guide

Does this resource truly promote breastfeeding?

Title: .....

Study the resource carefully and complete this assessment to identify resources that are supportive of breastfeeding. Some statements may be confusing or create a negative impression. Examples of these statements are provided.

Look through your resource and check the squares ☐ provided below. Examine your resource for other examples and write them in the space provided.

	Yes	No	N/A
1. Does this resource suggest hardship for breastfeeding mothers? Example: "You may opt to room in or to get all the rest you can before going home." Your example:	☐	☐	☐
2. Does this resource suggest possible harm to breastfed infants? Example: "Some mothers express concern that they will injure their babies if they fall asleep while nursing in bed." Your example:	☐	☐	☐
3. Does this resource use misleading visual materials? Example: Photo shows inappropriately positioned infant at the breast. Your example:	☐	☐	☐
4. Does this resource raise concerns about breastfeeding? Example: "There is no reason why a woman should not nurse her baby while she is menstruating." Your example:	☐	☐	☐
5. Does this resource create ambivalence about breastfeeding? Example: "It is no longer considered in poor taste for a mother to nurse in public." Your example:	☐	☐	☐
6. Does this resource make breastfeeding seem complicated? Example: Resource uses technical words and long explanations. Your example:	☐	☐	☐

	Yes	No	N/A
7. Does this resource suggest that bottle feeding is more common for newborns than breastfeeding? Example: "Traditional bottle feeding" is a section title. Your example:	☐	☐	☐
8. Does this resource give reasons to stop breastfeeding? Example: "You cannot safely take some medications while breastfeeding." Your example:	☐	☐	☐
TOTAL	.....	.....	.....

There can be a maximum of only one YES if the resource promotes breastfeeding.

Does this resource truly promote breastfeeding? ☐ Yes ☐ No

Does this resource comply with the WHO International Code of Marketing of Breast Milk Substitutes — Article 4?

1. Does this resource always support breastfeeding (i.e. it does not give a conflicting message such as "breastfeeding is best, but bottle feeding is okay too")?	☐	☐	☐
2. Does this resource outline the benefits of breastfeeding and the superiority of breast milk?	☐	☐	☐
3. Does this resource give accurate instructions on how to breastfeed?	☐	☐	☐
4. Does this resource include the detrimental effects on breastfeeding of introducing partial bottle feeding?	☐	☐	☐
5. Does this resource include techniques for expression of breast milk?	☐	☐	☐
6. If this resource includes information on infant formula, does it include the cost?	☐	☐	☐
7. Does this resource include information on how to manage breastfeeding when returning to work or school?	☐	☐	☐
8. Does this resource exclude specific brand names for formulas?	☐	☐	☐
9. Does this resource exclude pictures of infant formulas?	☐	☐	☐
10. Does this resource exclude coupons, free samples, or other marketing techniques?	☐	☐	☐
TOTAL	.....	.....	.....

Compliance with WHO Code: maximum of 2 NO scores

Does this resource comply with the WHO Code? ☐ Yes ☐ No

Source: This guide has been adapted with permission from that developed by the Breastfeeding Promotion Steering Committee of Manitoba, Winnipeg. The original guide was adapted from: Auerbach KJ, Beyond the issue of accuracy: evaluating patient education materials for breastfeeding mothers. *J Hum Lact* 1988; 41(3): 105-10.

APPENDIX 6

Guidelines for Taking a Feeding History

A mother's concerns frequently centre around the adequacy of the milk supply. The baby's general behaviour pattern as well as weight gain are helpful indicators to perceived, potential, or real problems. A feeding history should include the following:

- age of baby
- weight at birth and current weight (a gain of 1/2 to 1 kg [1 to 2 lb.] per month is acceptable; birth weight is regained by two to three weeks of age)
- how often a mother is nursing
- is baby experiencing milk ejection?
- is baby using both breasts?
- how long the mother is nursing
- number and consistency of baby's stools per day
- how many wet diapers? colour, amount, and frequency of urine?
- additional formula feeding? how often?
- mother taking any medication?
- caffeine, alcohol being used?
- mother smoking?
- is baby alert, with good colour, and active for age?
- baby's feeding pattern:
  - settles in and nurses with gusto?
  - takes time?
  - tastes, gulps, and tastes again?
  - cries during feeding?
- mother's health
  - anxious/depressed?
  - overly fatigued?
  - poor nutrition/fluid status?
  - history of severe postpartum hemorrhage?
- family supportive/non-supportive

It is important to always explore the mother's perception of any problem and to also ask "What makes you feel this has happened?" The age of the baby taken in the history will be a clue to the intervention, as well. It is usually helpful to observe the infant and mother breastfeeding.

Adapted from: Canadian Institute of Child Health. *National Breastfeeding Guidelines for Health Care Providers*. Ottawa: 1996, p. 139.

APPENDIX 7

Breastfeeding in the First Few Weeks

Breastfeeding is the best and most natural way to feed your baby. You will be able to produce enough milk. The keys to success are early, frequent feeding and proper positioning of the baby at the breast.

A baby who is doing well:

- has soft or loose bowel movements
  - 1 to 2 large or several small bowel movements for the first 2 to 3 days
  - after the first 2 to 3 days, 2 or more bowel movements in 24 hours
- has pale, light colour urine with almost no smell
  - in the first 3 days, 1 to 2 wet diapers per day (occasional brick red staining is normal)
  - 6 wet cloth diapers as the milk supply increases (usually by the 4th or 5th day)

  Note: This is easier to notice in cloth diapers. A facial tissue can be placed inside disposable diapers, if you are not sure.
- is feeding well at least 8 to 12 times in 24 hours
  - listen for swallowing or quiet "caw" sound
- is back to birth weight by about 2 weeks of age

Get help if any of these signs listed above are not present, or if:

- your baby is very sleepy and hard to wake for feedings
- your nipples are sore and do not start to get better
- you have fever, chills, flu symptoms, or a red painful area on your breast

  If you have these symptoms: nurse often; apply warm, wet towels; and get lots of rest. Phone your doctor or midwife if you do not feel better in 6 to 8 hours.

Help is available from:

Public Health nurse .....

Hospital/Children's hospital .....

La Leche League .....

Warm-line/Hot-line .....

Lactation consultants .....

Your midwife or doctor .....

A breastfeeding-support clinic/drop-in centre .....

Source: Adapted with permission from the Breastfeeding Promotion Committee of Ottawa-Carleton, 1999.

APPENDIX 8

Expressing and Storing Expressed Breast Milk

Expressing and storing your milk allows your baby to get breast milk when you are separated from each other. If you do express milk, it's best to wait until breastfeeding is going well (after 4–6 weeks), before giving your baby a bottle*. Many mothers find it best to express milk in the morning, after a feeding, or when their breasts feel fullest.

Some mothers prefer to take their baby with them when they go out and don't need to express their milk.

Use a Clean Container

- Wash your hands.
- Use containers such as glass (e.g. small canning jars or baby bottles) or hard plastic containers or bags made for freezing breast milk (not disposable bottle liners).
- Wash the jars, bottles and lids with hot soapy water and a brush.
- Rinse in hot running water and air dry.
  OR
- Use the sani-cycle on the dishwasher.

For premature or hospitalized infants, containers should be *sterile*. *To sterilize:*

- Fill a large pan with enough water to cover washed containers. Bring to a boil and continue to boil for five minutes.

Expressing Breast Milk

- Label storage container with date before expressing milk.
- Wash hands with soap and water.
- Sit somewhere comfortable and have something available to drink.
- Stimulate the flow of milk (milk ejection reflex) by:
  – applying warm, moist heat to the breast (e.g. warm wash cloths or shower)
  – supporting the breast with one hand and using the other hand to massage in small circles or stroke lengthwise from chest wall to the nipple.
- Express milk by hand or with a pump.

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* However, offering your baby bottles of breast milk or formula at any age can affect your milk supply and the baby's interest in breastfeeding.

EXPRESSING BY HAND

- Wash your hands.
- Express the milk into a clean container.
- Cup your breast in one hand and place your thumb and fingers at least one inch back from the base of the nipple.
  - Support the breast from below.
  - While pressing back against the chest wall, gently squeeze rhythmically with your thumb and fingers.
  - Move your thumb and fingers around the areola to be sure that milk is expressed from all the ducts. It may take your milk a few minutes to flow.
- Express from each breast for about five minutes, then go back and repeat on each breast again.
- At first you may collect only a little milk. The flow will increase with time and practice.

EXPRESSING WITH A PUMP

A variety of pumps are available for rent or sale from lactation consultants, hospitals, medical supply outlets, drug stores, and some children's stores. *Lactation consultants provide instructions and support for the pumps they supply.* You can consult the Health Department, a lactation consultant, La Leche League, nurse, or midwife about which pump is best for you.

Breast Pumps

Full-size Electric Breast Pumps

- Recommended when baby is temporarily unable to breastfeed (e.g. preterm or sick baby) or when baby is not breastfeeding effectively.
- Double pumping saves time (e.g. 10–15 minutes for double pump, 20–30 minutes for single pump).
- These are usually rented: costs include kit purchase, rental and deposit.
- Some insurance policies may cover the cost.

Battery-operated and Small Electric Pumps

- For short-term and occasional use.
- Portable but noisier and more expensive than hand pumps.
- May require batteries.
- Some pumps may hurt and may not work as well as others, so check with your care provider before purchasing.

Hand-operated Pumps

- For short-term, occasional use.
- Simple to operate and clean.
- Portable and the least expensive.
- Some have adjustable settings for suction pressure.

Follow pump manufacturer's instructions for the *safe operation and cleaning* of pumps. Do not exceed recommended pumping pressures. *After every use*, wash the pump parts that come into contact with your milk in hot, soapy water. Rinse and leave to air dry. These parts should also be sterilized once a day: boil for five minutes in enough water to cover the equipment.

Do not use pumps with rubber bulbs:

- The milk may flow into the bulb and it is very hard to clean.
- These pumps are uncomfortable and may damage your nipples.

BREAST MILK STORAGE

For a premature or hospitalized baby:

- Use a fresh, sterile container.
- Refrigerate milk within one hour after pumping.
- Use or freeze the milk within **48 hours.**

Refrigerator

- premature or hospitalized baby: 48 hours
- healthy baby: up to 3 days

In Freezer on Top or Side of Fridge

- for 2 to 3 months

Deep Freeze at -18°C (O°F)

- for 6 months

For a healthy baby:

- Use a clean container.
- Refrigerate the expressed milk.
- Use fresh within **3 days,** or freeze.
- Cooled breast milk may be added to a partly filled container of frozen milk.

- When freezing milk, do not fill containers to the top. Milk expands when it freezes and may crack the containers.
- Store your milk at the back of the fridge or freezer where it will stay coldest. Do not store it in the door as it is not cold enough.
- Put your milk up on a shelf or box if using a self-defrosting freezer. The bottom warms up to allow the defrost cycle to work.
- Frozen milk may be thawed in the fridge and used within 24 hours. If warmed for a feeding, use it within one hour or throw it out.
- Milk separates into layers. Mix well before use.
- Thawed milk may taste or smell different than fresh, but it is still good.

Longer storage times may be recommended by other sources. Guidelines in this pamphlet are conservative, and may change as more research is done.

WARM AND SERVE STORED BREAST MILK

- If milk has been refrigerated, place the container under warm running water for a few minutes until milk tested on your arm feels like room temperature.
- If milk has been frozen, place the container with frozen milk in warm water for five minutes. Shake to re-mix the fat.
- *Caution. Do not microwave. This may cause hot spots in the milk which can burn your baby.*

Need More Information? Call: .....

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APPENDIX 9

Ten Steps to Creating a Mother-Friendly Workplace

1. Ensure that workers know about Canada's existing maternity and parental leave policies.
2. Offer flexible work hours to breastfeeding women, such as part-time schedules, longer breaks, and job sharing.
3. Ensure that women are aware that they have full job security and protect this right.
4. Support affordable infant and child care at or near the workplace, and provide transportation for mothers to join their babies.
5. Provide daily breaks for breastfeeding or expressing breast milk.
6. Provide comfortable, private facilities for expressing and storing breast milk and for breastfeeding.
7. Encourage co-workers and management to have a positive, accepting attitude toward breastfeeding colleagues.
8. Keep the work environment clean and safe from hazardous wastes and chemicals.
9. Inform women workers and unions about maternity-leave policy and other rights.
10. Encourage a network of supportive women in unions or worker's groups who can help women to combine breastfeeding and work.

Adapted from: Jones F, Green M. *British Columbia Baby-Friendly Initiative: Resources Developed Through the BC Breastfeeding Resources Project*. Vancouver: BC Baby-Friendly Initiative, 1996.