The CDC Guide to *Breastfeeding* Interventions

U.S. Department of Health and Human Services

CDC Nutrition

The CDC Guide to *Breastfeeding* Interventions

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Introduction

Using This Guide

Introduction

Protection, promotion, and support of breastfeeding are critical public health needs. *Healthy People 2010*[1] sets goals for increasing both breastfeeding initiation and duration and decreasing disparities in these rates across all populations in the United States. Increased breastfeeding is also a major program area of the Centers for Disease Control and Prevention's (**CDC**) State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases.

Healthy People 2010	
Goal 16-19: Increase the proportion of mothers who breastfeed their babies	
16-19a	In the early postpartum period to 75%
16-19b	At 6 months to 50%
16-19c	At 12 months to 25%

Many types of interventions have been implemented in the United States and elsewhere to try to increase breastfeeding initiation, to increase exclusive breastfeeding, and to increase its duration. Choosing the most appropriate intervention for a given setting and population can be challenging given the breadth of possibilities. In an effort to support and assist states in making informed decisions and allocating funds wisely, CDC, with input from external experts in both breastfeeding and public health interventions, compiled this guide.

Included in this guide are all the types of breastfeeding interventions that have been reviewed by the **Cochrane Collaboration** and published through the **Cochrane Library,** a comprehensive collection of up-to-date information on the effects of health care interventions. In the 21st century, effective health care relies not only on individual medical skills but also on the best information on the effectiveness of interventions being accessible to practitioners, patients, and policy makers. This approach is sometimes known as "evidence-based medicine." The Cochrane Library is designed to provide information and evidence to support health care decisions and inform those receiving care.[2]

Because formal evaluation of breastfeeding interventions is not yet widespread, this guide includes some interventions that have not been formally evaluated but

Although **human milk banking** fulfills unique medical needs and requires greater support throughout the United States, it is not discussed in this guide. Banking human milk is not included because it is not an intervention to promote or support breastfeeding per se. The reader can obtain specific guidance on establishing a milk bank from the Human Milk Banking Association of North America (http://www.hmbana.org).

have an established history or a strong rationale. We discuss all major types of interventions known to have been implemented or thought to promote and support breastfeeding.

As readers decide what types of breastfeeding interventions to implement locally, they are encouraged throughout the planning process to incorporate an infrastructure to formally evaluate the intervention. Additionally, where possible, they are urged to broadly disseminate their findings, especially in peer-reviewed journals, to help grow the canon of evidence on breastfeeding interventions and in turn assist others in making evidence-based decisions on breastfeeding. Publishing evaluation data is especially important if an intervention is chosen whose effectiveness has not been formally established.

In developing this guide, CDC received detailed input and critique from established experts representing the spectrum of breastfeeding in the United States as well as from professionals working within state health departments within the framework of the CDC State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases. The invaluable input from these experts helped focus and refine this guide and thus improve it tremendously.

The chapters of this guide are divided into two categories that are based on evidence for effectiveness. In the first category, the evidence is significant; in the second, it is limited. Readers should note that some interventions have not been shown to be effective *standing alone* but have been evaluated when included as components of effective *multifaceted* interventions. Interventions of this type are described as such within the "Evidence of Effectiveness" section. CDC does not discourage interventions with limited evidence of effectiveness but recommends that if they are used, an evaluation of their effectiveness be carried out before widely disseminating the intervention.

This guide is most appropriately used as an introduction to the many interventions that have been developed to protect, promote, and support breastfeeding. As policy makers begin to focus on a particular intervention, they can consult "Program Examples," "Resources," and the "List of References" to acquire more in-depth information and to contact others who have implemented the intervention.

Using This Guide

This document provides guidance and direction in selecting a breastfeeding intervention. It offers the most relevant information on each type of intervention to help the reader make wise decisions.

The following categories of information have been included:

Definition
Briefly describes the intervention, including its target audience and specific goals.

Rationale
Explains why a particular type of intervention is important to breastfeeding.

Evidence of Effectiveness
Draws on the major peer-reviewed literature to summarize support for the intervention as well as evidence of no effects or of a negative effect. Includes the relevant Cochrane review, if available.

Description and Characteristics
Highlights characteristics and components of the intervention needed to effectively implement it.

Program Examples
Summarizes high-quality examples of the intervention and describes unique aspects. Examples are provided to show the reader concrete models of various interventions. These examples were selected with expert input from the authors as well as recommendations from the Expert Panel. This list is not exhaustive, and other programs with similar characteristics may exist.

Resources
Guides the reader to further information about programs and other items of interest described earlier in the chapter, such as contact information, Web links, and books.

Note: Web site addresses of nonfederal organizations are provided solely as a service to our readers. Provision of an address does not constitute an endorsement of this organization by CDC or the federal government, and none should be inferred. CDC is not responsible for the content of the individual organization Web pages.

Potential Action Steps
Presents a short list of activities that might be undertaken to begin implementing a particular intervention. This list can serve as a springboard for locally tailored approaches and help jump-start local thinking on how to proceed with implementation. The reader should note that many effective programs use multiple approaches to address a central theme.

In addition to the categories of information for each type of intervention, two other tools are provided to make using this guide easier.

References
Provides a sequential list of all information sources cited.

Glossary
Serves as a handy reference containing the definitions of certain technical terms and the full names of commonly used acronyms and initialisms appearing throughout the guide. Abbreviated terms are in bold the first time they appear, and technical terms are in bold the first time they appear in each chapter.

Evidence-Based Interventions

Maternity Care Practices

Support for Breastfeeding in the Workplace

Peer Support

Educating Mothers

Professional Support

Media and Social Marketing

Maternity Care Practices

Definition

Maternity care practices related to breastfeeding take place during the **intrapartum** hospital* stay, such as practices related to immediate prenatal care, care during labor and birthing, and **postpartum** care.

Some maternity care practices of interest are developing a written policy on breastfeeding, providing all staff (e.g., nurses, physicians, radiology staff, pharmacy staff, food service and housekeeping staff) with education and training, encouraging early breastfeeding initiation, supporting cue-based feeding, restricting supplements and pacifiers for breastfed infants, and providing for post-discharge follow-up. Other maternity care practices differ in their effect on breastfeeding. Both the use of medications during labor and cesarean birth have been shown to have a negative effect on breastfeeding; however, providing continuous support during labor and maintaining skin-to-skin contact between mother and baby after birth have been demonstrated to have a positive effect on breastfeeding.

Rationale

The maternity care experience exerts unique influence on both breastfeeding initiation and later infant feeding behavior. In the United States, nearly all infants are born in a hospital, and even though their stay is typically very short, events during this time have a lasting meaning. Correspondingly, the hospital stay is known to be a critical period for the establishment of breastfeeding.

Many of the experiences of mothers and newborns in the hospital and the practices in place there affect how likely breastfeeding is to be established. In most cases, however, these experiences reflect routine practices at the facility level, and new mothers rarely request care different from that offered them by health professionals. Prenatal education on breastfeeding can affect a mother's decision to even consider it as a feeding option. Medications and procedures administered to the mother during labor affect the infant's behavior at the time of birth, which in turn affects the

* We use the term "hospital" to include hospitals, birthing clinics, and freestanding birth centers.

infant's ability to suckle in an organized and effective manner at the breast. Infants who are put to the breast within the first few hours after birth continue breastfeeding longer than those whose first breastfeeding is delayed. Mothers who room-in with their infants will have more opportunities to practice breastfeeding because of the infant's proximity.

Breastfeeding is an extremely time-sensitive relationship. Experiences with breastfeeding in the first hours and days of life significantly influence an infant's later feeding. Because of its inextricable relationship with the birth experience, breastfeeding must be supported throughout the maternity hospital stay, not postponed until the infant goes home.

Evidence of Effectiveness

A **Cochrane review**[3] found that institutional changes in maternity care practices effectively increased breastfeeding initiation and duration rates. These changes can be part of a comprehensive set of changes, such as those implemented in pursuit of **BFHI** (*Baby Friendly Hospital Initiative*)[4] designation (established by the World Health Organization [**WHO**]**/UNICEF**),[5,6] or they can be individual interventions such as increasing the rooming-in of mothers and babies[7] or discontinuing polices that are not evidence based (e.g., routine **prelacteal feeds**).[5,8]

Birth facilities that have achieved BFHI designation typically experience an increase in breastfeeding rates.[6] In addition, DiGirolamo et al.[9] found a relationship between the number of *Baby Friendly* steps (included in the *Ten Steps to Successful Breastfeeding*[10] of BFHI) in place at a birth facility and a mother's breastfeeding success. The authors found that mothers experiencing none of the *Ten Steps to Successful Breastfeeding* required for BFHI designation (see text box) during their stay were eight times as likely to stop breastfeeding before 6 weeks as those experiencing five steps. This finding emphasizes the value of implementing incremental change within the hospital setting.

Educating hospital staff through a 3-day training program has been shown to enhance compliance with optimal maternity care practices and increase rates of breastfeeding.[11] Use of pacifiers by newborns is associated with fewer feedings per day and a shorter duration of breastfeeding overall.[12]

Supplemental feeds to breastfed newborns negatively impact overall infant health as well as breastfeeding outcomes.[13]

Distributing samples of infant formula to new mothers during the hospital stay has been demonstrated by a Cochrane review to negatively affect breastfeeding.[14] There appears to be a disproportionate negative impact of distributing formula samples on mothers who are particularly vulnerable, which includes those who are **primiparous** (first-time mothers), less educated, nonwhite, or ill during the postpartum period.[14]

The *Ten Steps to Successful Breastfeeding* are as follows:

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

Continuous support during labor using trained labor assistants such as **doulas** has been shown to improve breastfeeding outcomes.[15] Immediate skin-to-skin contact between mother and infant has been associated with longer duration of breastfeeding.[16] Conversely, birthing practices such as delayed timing of first breastfeeding and the use of labor analgesics,[17] epidural anesthesia,[18] and surgical (cesarean) birth[19] have all been demonstrated to negatively impact breastfeeding.

Description and Characteristics

Baby Friendly Hospital Initiative

The *Ten Steps* have been implemented in over 19,000 maternity care facilities worldwide as part of the *Baby Friendly Hospital Initiative* (BFHI). The term "baby friendly" was selected in part because it could be appropriately translated into languages all over the world. Designation as a BFHI facility requires the facility to demonstrate adherence to all *Ten Steps* to outside evaluators. Each of the *Ten Steps* has detailed requirements. For example, step 6 requires facilities to purchase all infant formula for patients at fair market value. Evaluation is completed through an on-site visit that includes interviews with multiple staff and patients and chart reviews. Currently, fewer than 50 hospitals and maternity care facilities in the United States carry BFHI designation.

Many different types of facilities have achieved BFHI status in the United States, including very small facilities serving primarily low-risk, high-income, privately insured patients as well as very large facilities serving mostly high-risk, low-income, publicly insured, or uninsured patients. Comprehensive hospitals (offering medicine, surgery, obstetrics, etc.), military facilities, and freestanding birth centers have all achieved BFHI status. Regardless of the type of facility, those achieving BFHI designation see improved health outcomes for infants and mothers as well as greater patient and staff satisfaction.[5]

Incremental Change

In addition to reforming maternity care practices throughout the facility, hospitals and other care centers can implement changes one at a time that incrementally improve maternity care and breastfeeding outcomes. Many facilities have instituted incremental change either to prepare to pursue BFHI status or as an alternative to the comprehensive approach taken by

BFHI. As evidence exists for each of the *Ten Steps* individually as well as for maternity care practices not included in *Ten Steps*, incremental change is a valid and often more marketable option.

Incremental change can take the form of adding new practices that support breastfeeding, providing comprehensive education and training to staff about breastfeeding and lactation management, abolishing practices known to negatively affect breastfeeding, or any combination of these strategies. Incremental steps need not be limited to those in the *Ten Steps*, yet should be evidence based.

Program Examples

Baby-Friendly USA is responsible for designating BFHI facilities within the United States and works with external evaluators to coordinate all BFHI activities.

The Texas Hospital Association and the Texas Department of Health have jointly developed the Texas Ten Step Hospital Program to recognize Texas hospitals that have achieved at least 85% adherence to the WHO/UNICEF *Ten Steps*. Certification is entirely voluntary and based on the hospitals' reports; there are no external audits or site visits.

The Breastfeeding Coalition of the Inland Empire in California has developed a model hospital policy framework that can be downloaded without charge from the Internet. The coalition has worked extensively with hospitals in the Riverside (southern California) area to implement incremental change focused on staff education, training, and support for early skin-to-skin contact and early initiation of breastfeeding.

The Academy of Breastfeeding Medicine has developed Model Breastfeeding Policy recommendations for physicians, including those working within a hospital setting. This policy can be downloaded without charge from the Internet.

Potential Action Steps

- Pay for hospital staff to participate in 18-hour training courses in breastfeeding, especially in hospitals serving high concentrations of low-income families.

- Examine regulations for maternity facilities and evaluate their evidence base; update or change if necessary.

- Establish links between maternity facilities and community breastfeeding support networks.

- Sponsor a summit of key decision-making staff at facilities providing maternity care to highlight the importance of evidence-based practices for breastfeeding.

- Implement a program within a hospital setting using the philosophy of incremental change—choose one practice that appears particularly widespread and work toward adjusting it to be evidence based and supportive of breastfeeding.

Resources

Baby-Friendly USA:
http://www.babyfriendlyusa.org

Breastfeeding Coalition of the Inland Empire Model Hospital Policy Recommendations:
http://www.breastfeeding.org/articles/modelpolicy.pdf

Texas Ten Step Hospital Program:
http://www.dshs.state.tx.us/wichd/lactate

Academy of Breastfeeding Medicine Model Breastfeeding Policy:
http://bfmed.org/protocol/mhpolicy_ABM.pdf

Support for Breastfeeding in the Workplace

Definition

Support for breastfeeding in the workplace includes several types of employee benefits and services,[20,21] including writing corporate policies to support breastfeeding women; teaching employees about breastfeeding; providing designated private space for breastfeeding or expressing milk; allowing flexible scheduling to support milk expression during work; giving mothers options for returning to work, such as teleworking, part-time work, and extended maternity leave; providing on-site or near-site child care; providing high-quality breast pumps; and offering professional lactation management services and support.

Rationale

Mothers are the fastest-growing segment of the U.S. labor force. Approximately 70% of employed mothers with children younger than 3 years work full time.[22] One-third of these mothers return to work within 3 months after birth and two-thirds return within 6 months.[22] Working outside the home is related to a shorter duration of breastfeeding, and intentions to work full time are significantly associated with lower rates of breastfeeding initiation and shorter duration.[23] Low-income women, among whom African American and Hispanic women are overrepresented, are more likely than their higher-income counterparts to return to work earlier and to be engaged in jobs that make it challenging for them to continue breastfeeding.[24] Given the substantial presence of mothers in the work force, there is a strong need to establish lactation support in the workplace.

Barriers identified in the workplace include a lack of flexibility for milk expression in the work schedule, lack of accommodations to pump or store breast-milk, concerns about support from employers and colleagues, and real or perceived low milk supply.[25–27]

Evidence of Effectiveness

Cohen et al.[28] examined the effect of corporate lactation programs on breastfeeding behavior among employed women in California. These programs included prenatal classes, **perinatal** counseling, and lactation management after the return to work. About 75% of mothers in the lactation programs continued breastfeeding at least 6 months, although nationally only 10% of mothers employed full-time who initiated breastfeeding were still breastfeeding at 6 months. Participants in the Mutual of Omaha's lactation program breastfed an average of 8.26 months, although nationally only 29% of mothers were still breastfeeding at 6 months.[29] Both of these programs are promising but may represent unique populations that may not be generalizable to all working mothers.

Indicators of satisfaction and perceptions related to workplace programs have been evaluated, as have assessments of the use of resources for breastfeeding support, services provided, and perceived impact on success. Measures of participant satisfaction and perceptions show a positive impact of workplace support programs on the mother's work experience.[30] Further, several studies indicate that support for lactation at work benefits individual families as well as employers via improved productivity and staff loyalty; enhanced public image of the employer; and decreased absenteeism, health care costs, and employee turnover.[31,32]

Description and Characteristics

Support programs in the workplace have several components. Many factors, such as how many women need support and the resources available, help determine the most appropriate components for a given setting. An outline document developed by the United States Breastfeeding Committee discusses "adequate," "expanded," and "comprehensive" support for breastfeeding in the workplace.[21]

According to Bar-Yam,[33] essential elements of a successful workplace program are space, time, support, and gatekeepers. Ideally, a Nursing Mother Room (**NMR**) is centrally located with adequate lighting, ventilation, privacy, seating, a sink, an electrical outlet, and possibly a refrigerator.[33] Employers can use many different strategies to ensure time for breastfeeding or milk expression, including flexible work schedules and locations, break times for pumping, and job sharing.

Mothers who continue breastfeeding after returning to work need the support of their coworkers, supervisors, and others in the workplace. Individual employers can do a great deal to create an atmosphere that supports employees who breastfeed. Such an atmosphere will become easier to achieve as workplace support programs are promoted to diverse employers. Workplace support programs can be promoted to employers, including managers of human resources, employee health coordinators, insurers, and health providers serving many of a particular organization's employees.

Program Examples

Employer Recognition

In 1998, the Oregon Department of Human Services Health Division developed the Breastfeeding Mother Friendly Employer Project to recognize employers who are already breastfeeding friendly and to encourage other Oregon employers to support breastfeeding in the workplace. The division gives a certificate to all employers who document that they meet Breastfeeding Mother Friendly Employer criteria and publishes a list of these employers each year.

Employer Incentives and Resources

The U.S. Health Resources and Services Administration Maternal and Child Health Bureau has launched a national workplace initiative that includes developing a resource kit for employers. *The Business Case for Breastfeeding*, developed to address barriers and the educational needs of employers, includes materials for upper management, human resource managers, and others involved in implementing on-site programs for lactation support. Also included is a tool kit with reproducible templates that can be adapted to the work setting. An outreach marketing guide helps local breastfeeding advocates and health professionals effectively reach out to employers.

Support and Accommodation in the Workplace

In 2002, the Arizona Department of Health Services adopted a breastfeeding policy for all of its employees. The goal is "to provide a positive work environment that recognizes a mother's responsibility to both her job and her child when she returns to work by acknowledging that a woman's

choice to breastfeed benefits the family, the employer, and society."[34] New mothers returning to work at the Department may be initially authorized to bring their infants to work until the child is 4 months old. This period may be extended in 1-month increments, depending on job performance and the infant's activity level. The policy provides for the privacy of mother and infant, requires the mother to maintain her performance on the job, and seeks to prevent disruption of other employees' work. A designated breastfeeding coordinator informs employees of the policy, provides educational materials, and gives support to any employee expressing an interest in breastfeeding her infant.

The California Public Health Foundation **WIC** (Special Supplemental Nutrition Program for Women, Infants, and Children) agencies provide a breastfeeding support program for their employees, most of whom are paraprofessionals. The program includes encouraging and recognizing breastfeeding milestones and providing training on breastfeeding, monthly prenatal classes, **postpartum** support groups, and a supportive work site environment. The work site environment includes pumping facilities, flexible break times, and access to a breast pump. A program hallmark is access to an experienced colleague known as a Trained Lactation Coach, or **TLC**, who breastfed her own children after returning to work. An evaluation of the California program revealed that more than 99% of employees returning to work after giving birth initiated breastfeeding, and 69% of those employees breastfed at least 12 months. Access to breast pumps and support groups were significantly associated with the high breastfeeding duration rates.[35]

Over the past decade, many companies and organizations have implemented lactation programs. For example, Mutual of Omaha provides a series of classes on breastfeeding for its pregnant employees. Prenatal classes are designed to support the company's strategic objectives of health and wellness for all its pregnant employees and their families. Support of the postpartum employee is tailored to assist breastfeeding employees as they transition from maternity leave to work.

Legislation

Several states have enacted legislation that encourages support for breastfeeding in the workplace. The United States Breastfeeding Committee has made available an inventory and analysis of state legislation on breastfeeding and maternity leave that includes legislation related to employment.

This inventory can be viewed online or downloaded free of charge from http://www.usbreastfeeding.org. La Leche League International has compiled a searchable summary and state-by-state information about state legislation in five major areas related to breastfeeding, including employment. Go to http://www.lalecheleague.org/LawBills.html for more information.

As of April 2004, five states had specific legislation requiring employers to accommodate breastfeeding mothers who return to work, and Illinois had similar legislation pending. Five more states had legislation or resolutions encouraging members of the public and private sectors, including employers, to support breastfeeding mothers. The legislation of two states included recommendations to complete demonstration projects on standard policies and practices for employers to support breastfeeding and to report findings back to the respective state legislatures.

In 1998, California passed the *Breastfeeding at Work* law, which encourages all employers to ensure that employees are provided with adequate facilities for breastfeeding or expressing milk. In 2002, the state passed *Lactation Accommodation*, which expands prior workplace provisions to require adequate break time and space for breastfeeding or milk expression, with a violation penalty of $100.

Texas set forth legislation in 1995 to standardize basic components of workplace support for breastfeeding. Employers that ensure these components are in place are eligible to receive *Mother-Friendly Workplace* designation from the Texas Department of Health. The major components are as follows:

- Flexible work schedules to provide time for milk expression.
- Access to a private location for milk expression.
- Access to a nearby clean and safe water source and sink for washing hands and rinsing out any breast-pump equipment.
- Access to hygienic storage options for the mother to store her breast-milk.

Resources

United States Breastfeeding Committee Issue Paper: Workplace Breastfeeding Support:
http://www.usbreastfeeding.org/Issue-Papers/Workplace.pdf

United States Breastfeeding Committee: Accommodations for Breastfeeding in the Workplace Checklist:
http://www.usbreastfeeding.org/Issue-Papers/Checklist-WP-BF-Support.pdf

United States Breastfeeding Committee Issue Paper: State Legislation that Protects, Promotes, and Supports Breastfeeding:
http://www.usbreastfeeding.org/Issue-Papers/State-Legislation-2004.pdf

La Leche League International:
Summary of State and Federal Legislation:
http://www.lalecheleague.org/LawBills.html

Oregon Department of Human Services
Health Division Breastfeeding Mother Friendly Employer Project:
http://www.dhs.state.or.us/publichealth/bf/working.cfm

Arizona Department of Health Services Office of Human Resources:
http://www.azdhs.gov/oed/personnel/index.htm

Texas Department of State Health Services
Texas Mother-Friendly Worksite Program:
http://www.dshs.state.tx.us/wichd/lactate/mother.shtm

Potential Action Steps

- Provide educational materials to employers about how supporting their employees who breastfeed benefits employers.
- Establish a model lactation support program for all state employees.
- Promote legislation to support work site lactation programs through mandates or incentives.
- Create work site recognition programs to honor employers who support their breastfeeding employees.

Peer Support

Photo by David C. Arendt, courtesy of La Leche League International

Definition

The goal of peer support is to encourage and support pregnant women and those who currently breastfeed. Peer support, which is provided by mothers who are currently breastfeeding or who have done so in the past, includes individual counseling and mother-to-mother support groups. Women who provide peer support undergo specific training and may work in an informal group or one-to-one through telephone calls or visits in the home, clinic, or hospital. Peer support includes psychoemotional support, encouragement, education about breastfeeding, and help with solving problems.

Rationale

Because women's social networks are highly influential in their decision-making processes, they can be either barriers or points of encouragement for breastfeeding.[36] New mothers' preferred resource for concerns about child rearing is other mothers.[37] For example, advice from friends is commonly cited as a reason for decisions about infant feeding.[38] Perceived social support has also been found to predict success in breastfeeding.[39]

As pointed out by Chapman et al.,[40] peer support may represent a cost-effective, individually tailored approach and culturally competent way to promote and support breastfeeding for women of varying socioeconomic backgrounds, especially where professional breastfeeding support is not widely available.

Evidence of Effectiveness

In a systematic review to evaluate interventions that promote breastfeeding initiation, Fairbank et al.[3] found peer support programs to be effective by themselves in increasing the initiation and duration of breastfeeding. Significant increases in initiation and duration rates were observed among women who expressed an interest in breastfeeding and requested support from a peer counselor. Multifaceted interventions with peer support as one of the main components have also been deemed effective in increasing breastfeeding initiation and duration.[41]

A study conducted at Cook County Hospital in Chicago in the late 1980s reported that women who participated in peer group discussions and education sessions breastfed longer than those who did not participate.[42] Peer support has been found effective in many population groups, including disadvantaged and low-income populations. Peer support has been used successfully with middle-income women and is viewed as vital for breaking down barriers within a woman's social network, especially among groups of women with low breastfeeding rates.[43]

Chapman et al.,[40] who completed a randomized controlled trial of peer support among low-income Latina women, found that women receiving individual peer counseling were more likely to breastfeed at 1 and 3 months **postpartum** than those who received only routine breastfeeding support. In addition, more women in the intervention group initiated breastfeeding.

Description and Characteristics

Ideally, peer mothers have the same or a similar sociocultural background as those whom they support. Peer mothers provide support and counseling to help women address their barriers to breastfeeding and assist them in preventing and managing breastfeeding problems.

Peer counselors can be paid or volunteer; some evidence suggests that using paid counselors is more effective.[41] Best Start Social Marketing, which researched WIC programs providing peer counseling for the **USDA** (U.S. Department of Agriculture) Food and Nutrition Service, found that paying peer counselors was critical to both retaining them and sustaining the programs.[44]

Programs providing one-to-one peer support facilitate access to breastfeeding education and assistance during the prenatal or postpartum period. For example, peer counselors contact pregnant women to help them make informed infant feeding decisions and prepare them for the breastfeeding experience. After childbirth, peer counselors provide nonmedical assistance and referrals as needed. Peer counseling programs may be based in the community, clinic, or hospital, with paid or volunteer counselors. Contacts may be made by telephone, in the home, or in the clinical setting.

Peer support groups are especially helpful in the first few days after childbirth, although many mothers benefit from longer term participation. Care should be taken to make the meetings feel supportive and relaxed, to facilitate the sharing of experiences, and to make it easy to ask questions and obtain answers. Groups are generally ongoing and meet regularly at an easily accessible location. Some groups charge a fee, some request donations, and some have other means of financial support. In most cases, the group leaders are volunteers. Some organizations offering peer support also provide breastfeeding management and support from an International Board Certified Lactation Consultant (**IBCLC**) or other health professional specializing in lactation.

Training is a necessary component of peer support and should include basic breastfeeding management, nutrition, infant growth and development, counseling techniques, and criteria for making referrals. In both individual and group settings, peer counselors are trained and are generally clinically monitored or overseen by a professional in lactation management support such as an IBCLC, nurse, nutritionist, or physician with specific training in skilled lactation care.

Other critical factors for successful peer support programs are leadership and support from management staff, personnel supervision programs, standardized and timely initial and ongoing training, support for peer counselors, access to IBCLCs, and community partnerships for making and receiving referrals. Integrating peer support within the overall health system seems to contribute to the ongoing maintenance of a program.[44]

Program Examples

La Leche League International (**LLLI**) offers group peer support nationwide through an ongoing series of four meetings, often held monthly. Telephone counseling and support are available to mothers 24 hours a day. In addition to leading La Leche League series meetings, some La Leche League Leaders make home visits. Leaders are mothers who are members of LLLI, have breastfed at least one child for at least 9 months, are volunteers, and have undergone an accreditation process that includes training and education about breastfeeding management, parenting, child development, communication skills, and supporting and counseling mothers.

In addition to the series meetings and the Leaders, LLLI offers a Peer Counselor Program, which includes training and support resources for persons interested in helping mothers in their communities to breastfeed

Photo by David C. Arendt, courtesy of La Leche League International

who are either paid employees of a program separate from LLLI or volunteers at such a program. Peer Counselors typically are recruited into the Peer Counselor Program, whereas Leaders usually seek out participation in LLLI themselves. In addition, Leaders are volunteers covered by liability insurance through LLLI, whereas Peer Counselors may be volunteers or employees of another agency but are never covered by LLLI insurance. In addition, while Leaders are representatives of LLLI and assist any mother who contacts them, Peer Counselors represent an agency (as either a volunteer or employee) using the Peer Counselor training offered by LLLI and assist mothers within a specific, designated area. Finally, Leaders are accredited by LLLI, while Peer Counselors have completed the La Leche League Peer Counselor Training Course. Further information about these differences is available on the LLLI Web site (http://www.lalecheleague.org/llleaderweb/LV/LVAugSep00p74.html).

The USDA WIC has launched a national initiative to institutionalize peer counseling as a core service. Many WIC state agencies already provide successful peer counseling programs, and the rest are implementing new programs as part of this national effort. After being given extensive training, peer counselors work primarily from home to provide telephone support to pregnant and breastfeeding mothers. In many programs, peer counselors also provide clinic-based counseling, make home visits during the early postpartum period, lead prenatal breastfeeding classes and postpartum support groups, and provide one-to-one support in the hospital setting.

In Michigan, the state WIC agency collaborates with the Michigan State University Cooperative Extension Service to manage its peer counseling program. WIC provides breastfeeding training and start-up funding; the Cooperative Extension educators supervise the peer counselors and provide them with ongoing training. This program is based on a model developed in North Carolina.

The Breastfeeding: Heritage and Pride peer counseling program is a collaborative effort between Hartford (Connecticut) Hospital, the Hispanic Health Council, and the University of Connecticut's Family Nutrition Program. **Perinatal** peer support is provided to low-income Latina women living in Hartford. The protocol calls for at least one home visit during the prenatal period. Counseling is provided once daily during the hospital stay. Hands-on assistance with positioning the infant's body at the breast and **latch** (the infant's mouth attachment to the breast for breastfeeding) is

also provided, along with instruction on feeding cues and frequency, signs of adequate lactation, and managing common problems. Peer counselors are required to make three contacts after hospital discharge, with the initial contact made within 24 hours. The counselors must be high school graduates, have at least 6 months of breastfeeding experience, and successfully complete the training program. Training consists of 30 hours of formal, classroom instruction; 3–6 months of supervised work experience; biweekly case reviews; and continuing education. Peer counselors are paid and receive benefits if they work at least 20 hours per week.

Potential Action Steps

- Fund one full-time position at the state level to coordinate peer counseling services for women not eligible for WIC in addition to services offered to WIC participants.
- Create or expand the coverage of a peer counseling program within WIC.
- Improve the quality of existing peer counseling services through increased contact hours, enhanced training, and earlier prenatal visits.
- Ensure and pay for the support and clinical supervision of peer counselors by an IBCLC.

Resources

La Leche League International:
Find a La Leche League meeting:
http://lalecheleague.org/leaderinfo.html

Peer Counselor Program: http://lalecheleague.org/ed/PeerCounsel.html

Differences and similarities between La Leche League Leaders and La Leche League Peer Counselors:
http://lalecheleague.org/llleaderweb/LV/LVAugSep00p74.html

USDA Food and Nutrition Service WIC Program:
Using Loving Support to implement best practices in peer counseling:
http://www.nal.usda.gov/wicworks/Learning_Center/support_peer.html

Breastfeeding: Heritage and Pride:
Hispanic Health Council:
http://apha.confex.com/apha/128am/techprogram/paper_5350.htm

Educating Mothers

Definition

The goal of educating mothers is not only to increase their breastfeeding knowledge and skills, but also to influence their attitudes toward breastfeeding. Breastfeeding education occurs most often during the prenatal and **intrapartum** periods and should be taught by someone with expertise or training in lactation management. This instruction typically occurs within an informally structured small group setting but may be given one-to-one. This education primarily includes information and resources. Although the target audience is usually pregnant or breastfeeding women, it may include fathers and others who support the breastfeeding mother.

Rationale

In the United States, most new mothers do not have direct, personal knowledge of breastfeeding, and many find it hard to rely on family members for consistent, accurate information and guidance about infant feeding. Further, although many women have a general understanding of the benefits of breastfeeding, they lack exposure to sources of information regarding how breastfeeding is actually carried out.[45]

Evidence of Effectiveness

A review by the U.S. Preventive Services Task Force in July 2003[46] determined education on breastfeeding to be the most effective single intervention for increasing breastfeeding initiation and short-term duration. This review included 30 controlled trials and 5 systematic reviews. A 2001 **Cochrane review**[41] searched 20 controlled trials and found that prenatal education in small groups is effective in increasing breastfeeding initiation rates.

Description and Characteristics

Prenatal Education

Breastfeeding education during pregnancy is often offered in a hospital or clinic group setting, but it need not be provided in a medical setting. Libraries, community centers, YMCA-type facilities, churches, temples, schools, and work sites can all be appropriate venues. Classes are typically

offered by a professional trained in breastfeeding or lactation management who is an effective teacher with groups of adults.

Classes may meet as part of a series (such as infant care or childbirth) or be freestanding. In addition to traditional instruction, classes often incorporate multidimensional learning opportunities, such as demonstrations and practice using a doll, videos, observing a newborn breastfeeding, and work in small groups. Many hospital-based classes include instruction on preparing for the infant's birth and early feeding practices that is directly tied to the policies at that particular hospital.

Prenatal curricula most often provide guidance for mothers about anticipated situations and signs of effective breastfeeding or breastfeeding problems; the benefits of breastfeeding to mother, baby, and society; appropriate positioning for feeding; facilitating effective **latch**; specific needs in the early days of breastfeeding; and resources for assistance. Emphasis is generally placed on building skills for latch and positioning, as well as addressing common fears, concerns, problems, and myths.

Intrapartum Education

Education on breastfeeding during the intrapartum period is extremely time sensitive. This type of education is often less formal than education provided during pregnancy and is generally conducted individually. Intrapartum breastfeeding education almost always occurs within a hospital setting.

Photo by Kimberly Cavaliero, courtesy of La Leche League International

Intrapartum breastfeeding education most often focuses on immediate issues such as fostering appropriate latch and positioning, adequate milk removal, stability of the infant, and comfort of the mother. It also gives an opportunity to reassure and support a concerned mother or family member, provides mothers and family members with referral information for further **postpartum** support, and allows the reiteration of signs of success or potential problems in the first few days after hospital discharge. All hospitals that routinely handle births should have staff with adequate training and knowledge to address and facilitate routine, standard breastfeeding education in the intrapartum period for all **breastfeeding dyads**.

All members of the health care team working with mothers and infants should possess basic skills in breastfeeding management and facilitate breastfeeding among their patient population. The standard professional member of the health care team for complex breastfeeding problems and lactation management is the IBCLC (International Board Certified Lactation Consultant). Other health professionals with expertise in lactation management include physicians and nurses who specialize in lactation.

Program Examples

Evergreen Hospital Medical Center is a *Baby Friendly Hospital Initiative* (BFHI) hospital in Kirkland, Washington, and offers patients infant feeding classes that the hospital describes as follows:

> You will learn the basics of infant feeding with the primary focus on breastfeeding as recommended by the American Academy of Pediatrics (**AAP**). Includes an overview of the AAP guidelines, indications for alternate feeding methods, and the three feeding phases during the first year of life. A parent panel shares its breastfeeding experiences and valuable insights.

Health insurance plans can provide breastfeeding education for their members. Harvard Pilgrim Healthcare (Massachusetts) offers a lactation support program to its members. As part of this program, enrollees who are pregnant can take a prenatal breastfeeding class at no charge.

The Texas Department of Health provides a variety of training programs for persons who will provide breastfeeding education to mothers. The classes are offered throughout the year in Texas and are also available by request nationwide. All training classes provide continuing education credit.

Bright Future* Lactation Education Resource Centre, Ltd. (Dayton, Ohio) offers guidance and training for those developing and conducting education on breastfeeding for mothers. Training and written resources are available to assist instructors in developing and sustaining evidence-based education on breastfeeding.

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* Note: This organization is distinct from the U.S. Department of Health and Human Services Bright Futures.

Potential Action Steps

- Fund training programs for health educators from local health departments who work with women of childbearing age to educate mothers about breastfeeding.

- Encourage health professional organizations to provide training for their members who provide services to women of childbearing age in providing breastfeeding education to mothers.

Resources

Evergreen Hospital Medical Center:
http://www.evergreenhealthcare.org/showpage.asp?sec=28

La Leche League International:
http://www.lalecheleague.org

Harvard Pilgrim Healthcare:
http://www.harvardpilgrim.org/pls/portal/docs/PAGE/MEMBERS/WELLNESS/MANAGE/CLASSES/2004_FALL_HEALTH_CLASSES.PDF

Bright Future Lactation Resource Centre, Ltd.:
http://www.bflrc.info

- Incorporate maternal breastfeeding education into Early Intervention (federal Individuals with Disabilities Education Act – **IDEA**) and women's programs, including Early Head Start, Success by Six, Infant and Toddler Programs (Part C of IDEA), family planning, teen pregnancy, and women's health clinic programs.

- Encourage childbirth educators to routinely incorporate evidence-based education on breastfeeding as an integrated component of their curricula.

- Encourage health plans to routinely offer prenatal classes on breastfeeding to all their members.

Professional Support

Photo by David C. Arendt, courtesy of La Leche League International

Definition

Professional support is provided by health professionals (e.g., physicians, nurses, lactation consultants, other allied health professionals) to mothers both during pregnancy and after they return home from their hospital stay. Support includes any counseling or behavioral interventions to improve breastfeeding outcomes, such as helping with a lactation crisis or working with other health care providers. The primary focus of support is counseling, encouragement, and managing lactation crises; education is a secondary purpose. Professional support can be rendered in person or over the telephone, in a group or individual setting, or in a clinic or home setting.

Rationale

Women's early experiences with breastfeeding considerably affect whether and how long they continue to breastfeed. Lack of support from professionals has been identified as a major barrier to breastfeeding, especially among African American women.[47,48] Mothers often identify support received from health care providers as the single most important intervention the health care system could have offered to help them breastfeed.[45] Short maternity hospital stays have shifted the responsibility for breastfeeding support to health professionals who provide ongoing health care.[49] Their role is to give consistent and evidence-based advice and support to help mothers effectively initiate and continue breastfeeding.

Evidence of Effectiveness

The U.S. Preventive Services Task Force[46] found fair evidence that providing ongoing professional support to mothers through in-person visits or telephone contact increased the proportion of women who continue breastfeeding for up to 6 months. The Task Force's meta-analyses of randomized controlled trials examining the impact of in-person or telephone support on breastfeeding practices found that support alone significantly increased breastfeeding duration: by 11% for mothers who breastfed 2 to 4 months (short term) and by 8% for those who breastfed 4 to 6 months (long term).

Combined breastfeeding support and education programs were superior (but not significantly so) to support alone in initiation (mean difference of 6% to 21%) and short-term duration (mean difference of 11% to 37%). A **Cochrane review**[41] indicates that a mostly in-person intervention significantly increases breastfeeding duration, while an intervention using mainly telephone contact does not.

Description and Characteristics

Professional support promotes breastfeeding by helping the mother and baby with **latch** and positioning of the infant, managing different lactation problems, counseling mothers returning to work or school, and addressing any other concerns of mothers and their families. This support can be provided during both the prenatal and **postpartum** periods and can be given by an International Board Certified Lactation Consultant (IBCLC) or other health professional, depending on the mother's needs and the availability of services.

IBCLCs are heath care professionals who specialize in the clinical management of breastfeeding. They are certified by the International Board of Lactation Consultant Examiners, which operates under the direction of the U.S. National Commission for Certifying Agencies. IBCLCs work in a variety of health care settings, such as hospitals, private pediatric or other physician offices, public health clinics, and their own private practices.

Photo by Kimberly Cavaliero, courtesy of La Leche League International

Professional support given prenatally can be very helpful for addressing individual women's barriers to breastfeeding. One of the best-detailed strategies to address such barriers is the Best Start Three Step Counseling Strategy™.[50] Two of its most appealing strengths are that it can be used by a wide range of health professionals and it is extremely time efficient.

Professional support is particularly critical in the first few weeks after delivery, when lactation is being established.[51] Gross et al. recommend that all breastfeeding mothers have access to lactation support from trained physicians, nurses, lactation consultants, or other trained health care providers, especially during the first days and weeks postpartum.[52] The content of professional support needs to be tailored to the mother's immediate needs. Although some pregnant women and new mothers may require in-depth support from an IBCLC to address complex breastfeeding issues, others may not require that level of support.

Professional support takes place in many different settings. Some women receive individual in-home visits from health professionals, while others visit breastfeeding clinics at hospitals, health departments, or women's health clinics. Staff at some maternity care facilities routinely follow up with their breastfeeding patients after they are discharged. This follow-up can be done in person, over the telephone, or face-to-face only after the telephone intervention is found insufficient. Staff at some maternity care facilities provide their breastfeeding patients with contact information for those who encounter difficulties. Experience among professionals in breastfeeding is that new mothers rarely make calls in such situations until problems become nearly insurmountable, and that proactive contact from health professionals is more effective.

Currently, many third-party payors in the United States do not reimburse for services rendered by IBCLCs unless they are otherwise eligible for reimbursement as nurses, physicians, or other health professionals. This situation is widely believed to be a barrier for many women seeking professional support because they must often pay out-of-pocket for this support. An additional barrier for many women, regardless of payment status, is not knowing how to get help with breastfeeding from an IBCLC.

Although nurse practitioners, physicians, and otherwise eligible health professionals may be reimbursed for their time spent on some components of support for breastfeeding, the availability of this reimbursement is not widely known in the medical community, and relatively few health professionals are adequately trained and experienced in providing breastfeeding support.[45]

Program Examples

The International Lactation Consultant Association (**ILCA**) provides an international *Find a Lactation Consultant* directory for mothers and health providers who seek professional lactation support from an IBCLC (http://gotwww.net/ilca). This resource can address the problem that some health care professionals do not know about or where to find IBCLC services.

A Reimbursement Toolkit for Lactation Consultants is available for purchase from ILCA. This toolkit guides lactation consultants (IBCLCs) through procedures to establish third-party billing for their services and includes sample items needed to establish such billing, as well as a comprehensive bibliography and other resources.

The Breastfeeding and Follow-Up Clinic of Stormont-Vail HealthCare, Topeka, Kansas, is available to any mother, regardless of where she delivered or the infant's age. Services include assisting with latch and positioning, checking the infant's weight, counseling for mothers returning to work or school, and addressing the mother's breastfeeding concerns. All professional support is free of charge to the patient, but patients are charged minimally for any supplies used. This clinic is supported by the nonprofit Stormont-Vail Foundation, third-party reimbursement of billable services, generous donations, and the sale of unique items that support breastfeeding.

The Harris County Breastfeeding Coalition (in Texas) initiated a hospital-based breastfeeding clinic staffed by paraprofessionals supervised by a lactation specialist at Baylor College of Medicine's Ben Taub General Hospital. This clinic provides breastfeeding support to high-risk mothers who are referred by hospital staff or are mothers who request this service within 2 weeks of discharge. Mothers receive counseling and hands-on assistance from breastfeeding counselors who have completed the Texas Department of Health's lactation management training program. Complex situations are referred to the clinic manager (an RN, IBCLC). Follow-up visits or telephone contact is arranged when problems are not resolved during the initial visit. Mothers are also referred to other sources of breastfeeding support in the community. The clinic was started with grant funding but has become a formal item in the hospital budget. Support from breastfeeding counselors is provided without charge beyond costs attributed to infant check-ups.

Photo by David C. Arendt, courtesy of La Leche League International

Kaiser Health Plan of Georgia offers its members a variety of lactation support services. Women can bring their babies in for a one-to-one visit with an IBCLC, and mothers can meet with a lactation consultant in an office near their home if they do not wish to travel to their physician's office. For mothers unable to travel to the lactation consultant's office, the health plan offers telephone consultations with IBCLCs who also call all breastfeeding women at 1 and 3 weeks postpartum. For women in special need of support after hospital discharge—including all teen mothers,

women whose infants had surgical (cesarean) births, and other women identified by a physician or nurse-midwife as meeting certain medical criteria—the health plan offers home visits from **perinatal** community nurses who have specialized training in lactation support. In addition, women whose infants are in the **neonatal** intensive care unit (**NICU**) automatically receive a follow-up phone call from a lactation consultant within 1 week and continuing phone calls as necessary.

Potential Action Steps

- Collaborate with state Medicaid and insurance commissioners to ensure lactation support is included in standard, reimbursable perinatal care services.

- Fund the establishment of sustainable, financially supported, walk-in breastfeeding clinics available to all new mothers in the community staffed by IBCLCs who are reimbursed for all services provided.

- Fund a program in which IBCLCs provide breastfeeding support to pregnant adolescents as part of their parenting education at local schools.

- Develop and disseminate a resource directory of lactation support services locally available to new mothers.

- Integrate lactation support services with home visitation programs to ensure that lactation problems are identified early and that mothers are referred for appropriate help and services.

Resources

International Lactation Consultant Association Find a Lactation Consultant Directory:
http://www.ilca.org

International Lactation Consultant Association Reimbursement Tool Kit for Lactation Consultants:
http://www.ilca.org/pubs

Breastfeeding and Follow-Up Clinic of Stormont-Vail HealthCare
http://www.stormontvail.org/services/birthplace.html

Harris County Paraprofessional Breastfeeding Clinic
http://www.bcm.edu/cnrc/hcbc/index.html

Kaiser Health Plan of Georgia Maternal/Child Health Lactation Program:
http://www.4woman.gov/owh/pub/breastfeeding/case_stdy4.htm

Medela, Inc., maintains a current list of ICD (International Classification of Diseases) codes applicable to professional breastfeeding support, as well as state-by-state tips for obtaining reimbursement from Medicaid:
http://www.medela.com/NewFiles/reburstmt_pro.html

Media and Social Marketing

Photo by Margo Geist, courtesy of La Leche League International

Definition

Marketing initiatives include promotions and advertising that support or encourage breastfeeding as well as imagery in the media that strengthen the perception of breastfeeding as a normal, accepted activity. Marketing can take place through broad venues traditionally considered part of advertising or can be more targeted and use methods such as professional endorsements, providing items to targeted audiences, and sponsoring events focused on a specific demographic group. Media campaigns are commonly presented to a wide audience and use public channels such as television, radio, printed materials, or outdoor advertising.

Social marketing campaigns go beyond media campaigns. They are comprehensive, multifaceted approaches providing targeted, coordinated interventions to a variety of audiences, including consumers, their support systems, health care providers, the community, and the general public.

Rationale

Increasing the amount of positive images of breastfeeding to counteract advertising that markets infant formula should help to promote breastfeeding as a viable option for infant feeding. Normalizing the concept of breastfeeding makes it a more feasible choice for many women, who often see it as an unattainable ideal.

Social marketing uses established principles in commercial marketing to encourage healthy behaviors or support behavioral change.[53] Social marketing uses many different approaches simultaneously to effect synergistic change, which is particularly appropriate for breastfeeding because of the many complex issues and barriers involved.

Evidence of Effectiveness

A 2000 **Cochrane review**[3] suggests that media campaigns, particularly television commercials, have been shown to improve attitudes toward breastfeeding and increase initiation rates.

Social marketing has been established as an effective behavioral change model for a wide variety of public health issues.[54] Specific to breastfeeding, Khoury et al.[55] demonstrated that a comprehensive social marketing approach including interventions to increase public awareness (through media and other outlets) increased rates of initiation and duration while also improving perceptions of community support for breastfeeding.

Description and Characteristics

Social marketing campaigns for breastfeeding follow the major principles of commercial advertising and should address each issue appropriately. To conduct high-quality campaigns, social marketers engage in extensive background research before they develop campaign messages or products. Steps include formative research, testing concepts, creative development, testing and then producing materials, and dissemination. Social marketing campaigns are consumer driven and designed to address specific barriers identified during formative research.

The major principles of both social marketing and commercial marketing are "the four Ps": product, price, place, and promotion.[56] The *product* is the behavior change being promoted, in this case, breastfeeding itself. In promoting breastfeeding, marketers must find the unique quality that makes their product (breastfeeding) more desirable than the competition (using infant formula). The *price* includes the emotional, psychological, physical, and social costs of breastfeeding as perceived by a target audience. The *place* refers to the optimal venues to deliver the message to the target audience: the best place for a media campaign about breastfeeding might differ widely from one demographic group to another. *Promotion* strategies should resonate with the target audience and be delivered in a well-coordinated fashion.

The Four Ps of Social Marketing	
Product	desired behavior change
Price	costs to make the change
Place	locations to deliver message
Promotion	messages to encourage change

Program Examples

Babies Were Born to Be Breastfed is the campaign tag line of the U.S. National Breastfeeding Awareness Campaign launched by the U.S. Department of Health and Human Services' Office on Women's Health and the Advertising Council. This campaign targets first-time parents through television, radio, out-of-home, Internet, and print advertising that highlights the health consequences of not breastfeeding.

The goal of the U.S. National Breastfeeding Awareness Campaign is to increase initiation and exclusive breastfeeding rates at 6 months. The public is encouraged to call the National Women's Health Information Center Breastfeeding Warmline at 1-800-994-WOMAN or visit their Web site at http://www.4woman.gov for breastfeeding information. In addition, 18 community demonstration projects support the campaign by providing breastfeeding services, community coalition building, and outreach to local media.

Loving Support Makes Breastfeeding Work is the U.S. Department of Agriculture's WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) National Breastfeeding Promotion Program, a comprehensive social marketing strategy conceived by Best Start Social Marketing for the WIC program. The *Loving Support* campaign has been used in all 50 states by many groups, such as WIC agencies, hospitals, community organizations, and breastfeeding coalitions. The campaign includes public awareness materials; print materials; promotional items for diverse audiences; training for WIC staff, community advocates, and peer counselors; counseling skills development; and technical support to those implementing the strategies.

The Texas Department of Health maintains a *National Breastfeeding MediaWatch Campaign* to monitor both positive and negative media mentions of breastfeeding and formula. *MediaWatch* volunteers who find positive images of breastfeeding coordinate recognition to the media outlet or responsible party. The goal of *MediaWatch* is to bring about more positive references to breastfeeding in media and thus shape societal views in favor of breastfeeding.

Resources

Babies Were Born to Be Breastfed:
http://www.adcouncil.org/campaigns/breastfeeding

Loving Support Makes Breastfeeding Work:
http://www.fns.usda.gov/wic/Breastfeeding/lovingsupport.htm

Texas Department of State Health Services
National Breastfeeding MediaWatch Campaign:
http://www.dshs.state.tx.us/wichd/lactate/media.shtm

Potential Action Steps

- Identify local experts who can pitch stories to the media that highlight breastfeeding.
- Provide *Loving Support* materials to interested local physicians, schools, clinics, hospitals, and child care centers.
- Approach local media outlets (television, radio, print) and request them to air or feature the public service announcements they have available as part of the *Babies Were Born to Be Breastfed* campaign.

Interventions: Effectiveness Not Established

Countermarketing and the WHO *International Code*

Professional Education

Public Acceptance

Hotlines and Other Information Resources

Countermarketing and the WHO *International Code*

Definition

Countermarketing addresses the marketing by commercial competitors (makers or distributors of infant formula) that has a negative effect on breastfeeding by seeking to limit these companies' use of competing imagery and influences in the media and in health settings. Countermarketing differs from social marketing because it is specifically directed at commercial enterprises that compete against breastfeeding and other factors known to have a negative impact on breastfeeding.

The World Health Organization (WHO) ***International Code*** *of Marketing of Breast-Milk Substitutes*, adopted in 1981 by the World Health Assembly,[57] is a comprehensive set of guidelines for those who work and interact with mothers and infants that suggests standards for the appropriate marketing and distribution of commercial competitors to breastfeeding (i.e., makers of infant formula). It is generally referred to as the *International Code*.

Rationale

Widely prevalent advertising, imagery, and promotions such as free offers, endorsements, and direct mail have been successful in increasing product recognition and sales for many commercial organizations. The commercial marketing of infant feeding products has been shown to have a negative impact on breastfeeding.[14] Limiting the marketing of commercial competitors who compete with breastfeeding can help mothers and families make appropriate and informed decisions about infant feeding.

The *International Code* provides standard guidelines for the marketing and distribution practices of commercial competitors to breastfeeding, especially to limit marketing directed toward pregnant women and new mothers. WHO and UNICEF, through the World Health Assembly, determined the *International Code* was necessary "in view of the vulnerability of infants in the early months of life and the risks involved in inappropriate feeding practices, including the unnecessary and improper use of breast-milk substitutes." These organizations further decided "the marketing of breast-milk

substitutes requires special treatment, which makes usual marketing practices unsuitable for these products." (*International Code,* p. 7)

Evidence of Effectiveness

The **Cochrane review** of the impact of distributing samples of infant formula and promotional materials to breastfeeding mothers in the form of hospital discharge packs suggests a negative effect of this direct marketing on the duration and exclusivity of breastfeeding.[14] This review included nine randomized controlled trials involving a total of 3,730 women in North America. These studies evaluated the impact of both distributing free samples of infant formula and giving out promotional materials on infant formula to new mothers who were already breastfeeding. The main outcome measures were (1) breastfeeding at 6 and 13 weeks **postpartum**, (2) the prevalence of exclusive versus partial breastfeeding between 0 and 13 weeks postpartum and at 6 months, and (3) the timing of the introduction of solid food. The main finding was that when compared with not giving a discharge pack or providing a noncommercial discharge pack, distributing samples of infant formula reduced exclusive breastfeeding at all time points measured. No detrimental effects were found when discharge packs of commercial infant formula were not distributed.

In addition to the negative impact of distributing samples of infant formula during the mother's hospital stay, Howard et al.[58] demonstrated in a randomized controlled trial of 547 women that educational materials on breastfeeding produced by manufacturers of infant formula and distributed to pregnant women intending to breastfeed had a substantially negative effect on the exclusivity and duration of breastfeeding. This impact was much greater on women with uncertain or short breastfeeding goals.

The effect of the marketing practices of commercial competitors on breastfeeding is of particular concern because of its disproportionately negative impact on mothers in the United States who are known to otherwise be at high risk for early termination of breastfeeding, including those who are **primiparous** (first-time mothers), have less formal education, are nonwhite, or are ill postpartum.[14]

Description and Characteristics

The *International Code* individually addresses the roles of health care systems, health workers, and persons who manufacture, market, and distribute products that compete with breastfeeding. The *International Code* also covers issues of labeling, quality, and monitoring compliance with the guidelines. Commercial competitors are those who manufacture or distribute infant formula, foods, and beverages intended for infants less than 6 months old, as well as feeding bottles, artificial feeding teats, pacifiers, and other products that support or promote bottle feeding.

The *International Code* aims to "contribute to the provision of safe and adequate nutrition for infants, by the protection and promotion of breastfeeding and by ensuring the proper use of breast-milk substitutes, when these are necessary, on the basis of adequate information and through appropriate marketing and distribution."[57]

The *International Code* recommends

- No advertising of breast-milk substitutes directly to the public.
- No free samples to mothers.
- No promotion of products in health care facilities.
- No commercial product representatives to advise mothers.
- No gifts or personal samples to health workers.
- No words or pictures idealizing artificial feeding, including pictures of infants on the products.

The *International Code* also states

- Information to health workers should be scientific and factual.
- All information on artificial feeding, including the labels, should explain the benefits of breastfeeding and the costs and hazards associated with artificial feeding.
- Unsuitable products, such as condensed milk, should not be promoted for babies.
- All products should be of a high quality and take into account the climatic and storage conditions of the country where they are used.

Until the late 1980s, infant formula was not marketed directly to consumers in the United States. Instead, marketing efforts focused on the relationship between health professional and parent in making decisions

about infant feeding. Over the last two decades, however, there has been a movement toward using direct-to-consumer marketing instead of advertising to physicians and other health professionals who might influence parents' decisions about infant feeding.[59] This change has made it more challenging for health care systems and health workers to comply with the *International Code*.

Two major aspects of the challenge in complying with the full *International Code* in the United States involve reconciling seemingly opposing needs. To some, the concepts and recommendations put forth in the *International Code* conflict with legislation about freedom of speech, including advertising. A further complication is the limited regulation of product label claims within the United States. The first challenge notwithstanding, individual health care systems, health workers, and media organizations can choose to provide venues (such as clinics, pediatrician offices, and WIC locations) for distributing code-compliant information.

Program Examples

The Ohio Department of Health and Linda Smith have published materials to assist states, health departments, hospitals, and individuals in evaluating breastfeeding materials. A score sheet for evaluating breastfeeding materials (e.g., pamphlets, audiovisuals, posters, handouts, other media) is available to help determine whether they comply with *International Code* guidelines. The National WIC Association has published a document about the role of infant formula in WIC. This document may be ordered directly from the National WIC Association (call 1-800-231-4385 or visit http://www.nwica.org [select Products]).

The National Alliance for Breastfeeding Advocacy (**NABA**) represents the International Baby Food Action Network (**IBFAN**) and the World Alliance for Breastfeeding Action (**WABA**) in the United States. NABA's mission is to protect, promote, and support breastfeeding in the United States, and it uses various efforts to advocate for breastfeeding as the cultural norm. NABA Research Education Advocacy and

Legislation (**NABA REAL**) is the nonprofit organization responsible for monitoring compliance with the *International Code* in the United States. NABA REAL trains others in monitoring compliance and maintains a Code Help Center to assist others in reporting violations of the *International Code*. NABA publishes and distributes documentation of *International Code* violations in the United States.

Potential Action Steps

- Provide noncommercial posters and educational materials on breastfeeding to the offices of pediatricians, family practitioners, obstetrician-gynecologists, and nurse-midwives to be used in place of similar materials provided by commercial manufacturers.

- Establish policies that public health clinics and facilities will not display or distribute materials provided by or bearing the logos of infant formula manufacturers.

- Collaborate with local associations of health professionals such as pediatricians, obstetrician-gynecologists, family practitioners, and nurses to discourage the use of informational and educational materials provided by or bearing the logos of infant formula manufacturers.

Resources

World Health Organization *International Code of Marketing of Breast-Milk Substitutes:*
http://www.who.int/nut/documents/code_english.PDF

Guidelines for evaluating pamphlets, audiovisuals, posters, handouts, and other media related to breastfeeding, including a score sheet that can be used for evaluation:
http://www.bflrc.info/ljs/evaluation_tools.htm

A publication of the National WIC Association about the role of infant formula in WIC may be purchased through the association's Web site:
http://www.nwica.org (select products for ordering information)

National Alliance for Breastfeeding Advocacy:
http://www.naba-breastfeeding.org/nabareal.htm#Monitoring

INFACT (Infant Feeding Action Coalition) Canada:
http://www.infactcanada.ca

Professional Education

Definition

Professional education includes any programs that improve the knowledge, skills, attitudes, or behaviors of health care providers on the importance of breastfeeding, the physiology and management of lactation, or counseling related to breastfeeding. Health care providers are defined here as physicians, nurse-midwives, nurse practitioners and other nurses, nutritionists, lactation consultants, and other members of the health care team such as pharmacists, social workers, speech-language pathologists, physical therapists, and occupational therapists.

Rationale

Health care providers have a substantial influence on a woman's decision to breastfeed and on her ability and desire to continue breastfeeding.[60] Even so, some clinicians lack the skills to manage problems with breastfeeding.[61,62] Moreover, some believe that breastfeeding provides only modest benefits and that infant formula is not a significantly inferior choice. Education to improve the knowledge, attitudes, and skills of health care providers could be a key strategy for improving breastfeeding rates.

Evidence of Effectiveness

While professional education may be a prerequisite for the success of other breastfeeding interventions (e.g., lactation support services, maternity care practices), a **Cochrane review**[3] found no evidence that professional education alone directly improves rates of breastfeeding initiation or duration. Intensive initial courses (as well as in-service trainings) in lactation can be effective in increasing the knowledge of health professionals and thereby be an important component of more comprehensive programs to promote breastfeeding.

Description and Characteristics

Educational programs on breastfeeding range from 1-hour lectures to intensive courses lasting 3 months. Building the skills to enable health care providers to deal with even routine lactation problems takes a combination of extensive formal instruction and practical experience. While short

lectures are to be encouraged for the purpose of raising general awareness and increasing acceptance of the importance of breastfeeding and lactation management, expecting clinicians to obtain the needed skills in brief, one-time lectures or events is unreasonable.

All health care providers who interact with women of reproductive age or with children need a basic understanding of breastfeeding. In addition, they need to understand how the procedures they perform or the drugs they prescribe could directly or indirectly affect women who breastfeed currently or who may do so in the future. Professionals need to recognize that breastfeeding is a normal and biologically important physiologic process that is critical to infant and maternal health. Professionals working in maternity care (obstetrics, midwifery, pediatrics, family practice) need in-depth knowledge and skills directly related to breastfeeding and lactation management. In addition, a cadre of highly skilled lactation professionals is needed to deal with complicated lactation problems.

Ideally, education on breastfeeding needs to be built into the curricula of medical and nursing schools and educational programs for other health professionals, as well as into the residency and fellowship training of physicians. Additionally, because many of today's health professionals did not receive adequate training in breastfeeding, in-service training or retraining for current practitioners is needed.

Program Examples

The American Academy of Pediatrics (AAP) Breastfeeding Promotion in Physicians' Office Practices (**BPPOP III**) program educates and supports residents in pediatrics, obstetrics and gynecology, and family medicine; practicing physicians; and other health care professionals and public health representatives in the effective promotion and management of breastfeeding in racially and ethnically diverse populations pursuant to the achievement of national goals for breastfeeding in *Healthy People 2010*.[1] An adaptable curriculum that can be integrated into medical schools and residency programs is being developed to optimally train future physicians about breastfeeding. Participation in BPPOP III strengthens and expands the number of national organizations—including nurses' associations and organizations of allied health professionals and laypersons interested in breastfeeding—that are collaborating to increase the incidence and duration of breastfeeding and decrease racial and ethnic disparities in breastfeeding rates. Also through the program, information is provided about structured educational programs that have been found effective, behavioral counseling

techniques, and ongoing support of women to initiate and sustain breastfeeding. Technical assistance is provided by AAP and other experts. BPPOP III is operated by AAP in partnership with the U.S. Department of Health and Human Services' Maternal and Child Health Bureau. Resource materials and further information are available through the AAP Web site (http://www.aap.org/advocacy/bf/brpromo.htm).

La Leche League International sponsors an Annual Seminar for Physicians on Breastfeeding to educate physicians and other lactation specialists. AAP and the American College of Obstetricians and Gynecologists are cosponsors, and the American Academy of Family Physicians participates as a cooperating organization. The seminar covers new and ongoing breastfeeding research, optimal clinical management, legal and ethical aspects of promotion and support, current literature and how to critically review it, and the development of physical and psychosocial support skills.

Wellstart International has developed, with federal support, a *Curriculum Guide for Faculty of Medical, Nursing, and Nutritional Programs* as well as a *Lactation Management Self-Study* tool for use in preservice and in-service programs as well as in continuing education. Wellstart International also provides consultation for curriculum integration planning.

Education for health care providers on breastfeeding is needed in at least three areas:

- *Importance of breastfeeding.* In the United States, knowledge of the benefits of breastfeeding is generally high,[61] but some health professionals believe these benefits are not substantial and that infant formula is not significantly inferior to breastfeeding. Furthermore, they are generally unclear on how long breastfeeding should continue or the importance of exclusive breastfeeding.
- *Lactation management.* Taveras et al.[48] found that women whose physicians recommended supplementing breastfeeding with formula or who did not consider their advice to mothers on breastfeeding duration to be very important were more likely to have discontinued exclusive breastfeeding by 12 weeks **postpartum**.
- *Counseling.* Health care providers need skills in talking with pregnant women and mothers about breastfeeding and how to incorporate breastfeeding into their lives.

The Academy of Breastfeeding Medicine has published evidence-based clinical protocols for managing common medical problems that may affect breastfeeding. Currently, protocols are available addressing hypoglycemia (in English, Spanish, and German); hospital discharge, **mastitis**, and management of **peripartum** breastfeeding (all in English and Spanish); **cosleeping** and breastfeeding; model hospital policy; storing human milk for home use; **galactogogues** (medications used to promote milk production); breastfeeding the near-term infant; **neonatal ankyloglossia** (condition in which movement of the newborn's tongue is restricted by a tight lingual frenulum); and transitioning from the **neonatal** intensive care unit (NICU) to home.

The International Lactation Consultant Association (ILCA) provides a guide to selecting a lactation course as well as a Directory of Lactation Course Providers that lists persons available to assist hospitals and other organizations with on-site education in lactation. ILCA's Worldwide Education Calendar lists specific lactation courses around the world.

The Mississippi Department of Health WIC program has developed a three-level training program, *How to Support a Breastfeeding Mother,* which has been adapted for use with health professionals who provide education and support to new mothers. Level 1 is designed to increase awareness of the importance of breastfeeding among all staff. Levels 2 and 3 address preventing and managing breastfeeding problems as well as maintaining breastfeeding in the midst of special situations.

Resources

American Academy of Pediatrics' (AAP) Breastfeeding Promotion in Physicians' Office Practices (BPPOP III):
http://www.aap.org/advocacy/bf/brpromo.htm

La Leche League International's Annual Seminar for Physicians on Breastfeeding:
http://www.lalecheleague.org/ed/PhysSem.html

Wellstart International:
http://www.wellstart.org

Academy of Breastfeeding Medicine:
http://www.bfmed.org

International Lactation Consultant Association Course Listings:
http://www.ilca.org/education/courselistings.php

Mississippi State Department of Health WIC Program:
http://www.msdh.state.ms.us

Potential Action Steps

- Distribute clinical protocols developed by the Academy of Breastfeeding Medicine to local physicians.
- Host a lactation course or send health professionals to such a course.
- Provide training to health professionals using the Mississippi WIC curriculum.
- Collaborate with medical school faculty to improve the quality and increase the quantity of course content devoted to breastfeeding education management.
- Make available and coordinate grand rounds or in-service presentations on breastfeeding by IBCLCs or other professionals with specific training in breastfeeding.

Public Acceptance

Photo by David C. Arendt, courtesy of La Leche League International

Definition

Interventions to increase public acceptance of breastfeeding include legislation ensuring the right to breastfeed; programs to improve acceptance of breastfeeding in public places such as restaurants, stores, and libraries; the placement of nursing mothers' lounges in public areas; interventions aimed at child care facilities that care for breastfed infants and children; and the inclusion of breastfeeding in various curricula aimed at school-aged children.

Rationale

Normative health beliefs are heavily influenced by one's environment.[63] Currently, many Americans have had little experience with breastfeeding in their daily lives. Many misconceptions related to breastfeeding persist,[64] in part because it remains unseen and mysterious. Many mothers feel uncomfortable breastfeeding away from home.[65] Anecdotal reports indicate that women throughout the United States have inappropriately been requested to leave various locations because they are feeding their infants. Mothers cite negative experiences when requesting child care providers to use breast-milk as a barrier to continued breastfeeding.

As breastfeeding becomes more accepted as the normal and standard infant feeding method, public acceptance should increase. Increasing the number of people who see breastfeeding as normal can be achieved by increasing the public's acceptance of breastfeeding.

Evidence of Effectiveness

While increasing the public's acceptance of breastfeeding can be beneficial in many ways, and many efforts exist to try and increase public acceptance of breastfeeding, a **Cochrane review**[3] found no scientific studies of interventions to increase this acceptance, making it impossible to determine whether they are effective.

Description and Characteristics

Both federal and state laws have been enacted that specifically allow women to breastfeed in any place they are otherwise legally allowed to be. Legislation in some states exempts from jury duty mothers who are breastfeeding. As of May 2004, the federal government and 34 states had enacted legislation on breastfeeding.

Several states and breastfeeding coalitions have established Breastfeeding Welcome Here materials for distribution to restaurants, stores, and other public locations. These materials generally include basic information for merchants and staff on supporting customers who breastfeed as well as items for public display, such as window stickers and table tents (print materials on tables generally found in restaurants).

Photo by David C. Arendt, courtesy of La Leche League International

Many public places, such as malls, airports, zoos, hospitals, libraries, and museums, have established areas for breastfeeding known commonly as nursing mothers' lounges. These rooms are typically set away from high-traffic areas and often have comfortable seating and lighting, a few toys for children, and reading material for mothers. The lounges are distinct and detached from public restrooms.

Also, some child care facilities offer specific training for staff regarding the appropriate handling of human milk and working with breastfeeding mothers to establish the most appropriate and supportive care of their children. Some child care facilities actively solicit families with breastfeeding infants and children and use many of the same materials as those employed by restaurants and stores to indicate their support of breastfeeding.

In addition, schools have integrated education on breastfeeding into a wide variety of disciplines. Breastfeeding can be effectively and appropriately explored across the grades with age-appropriate examples and images. Effective approaches involve incorporating breastfeeding into larger academic disciplines, such as biology, psychology, nutrition, and art, rather than addressing it as a stand-alone theme.

Program Examples

Legislation

California has four major pieces of legislation directly related to breastfeeding. Two of these (the 1998 *Breastfeeding at Work* law and the 2002 *Lactation Accommodation* legislation) were described in an earlier section (Support for Breastfeeding in the Workplace). The 1997 *Personal Rights: Breastfeeding* law states that a mother may breastfeed her child in any location where the mother and child are authorized to be present. The 2000 *Jury Service: Breastfeeding* provision exempts breastfeeding mothers from jury duty and requires the state not to make the mother appear in court to present her request.

Support of Breastfeeding by Merchants and Other Businesses

The San Diego County Breastfeeding Coalition has a *Breastfeeding Welcome Here* program in which merchants and other businesses may order window stickers with a graphic of a **breastfeeding dyad** and the words "Breastfeeding Welcome Here" along with information about supporting their customers who breastfeed.

Child Care Facilities

The Mississippi Department of Health WIC program has developed a training curriculum for child care providers entitled *How to Support a Breastfeeding Mother: A Guide for the Childcare Center*. The curriculum incorporates guidelines for providers on how to support breastfeeding mothers as well as guidelines for the storage and handling of expressed milk. This curriculum has been adopted by other state health departments across the United States. The curriculum and teaching materials are all available free for download from the Texas Department of Health (http://www.dshs.state.tx.us/wichd/bf/handoutstext.shtm).

Academic Curricula

The state of New York has developed a comprehensive curriculum to incorporate education on breastfeeding that is relevant to the entire K–12 (kindergarten through 12th grade) age span that includes lesson plans, suggested reading, and activities. This curriculum uses multifaceted content areas to teach the normalcy of breastfeeding in age-appropriate contexts, including breastfeeding as one of the defining characteristics of all mammals and concepts of general biology, immunology, sociology, economics, and environmental waste. The curriculum is intended to be fully integrated into existing academic areas and not taught as a stand-alone academic subject. The full curriculum is available online (see Resources).

Resources

50 State Summary of Breastfeeding Laws:
http://www.ncsl.org/programs/health/breast50.htm

San Diego County Breastfeeding Coalition Breastfeeding Welcome Here program:
http://www.breastfeeding.org/newsletter/v2i1/page6.html

Motherwear Breastfeeding Welcome Here Campaign:
http://motherwear.com/Services/community/outreach/main_gate.asp?Page=2&uid

Mississippi WIC How to Support a Breastfeeding Mother: A Guide for the Childcare Center
http://www.dshs.state.tx.us/wichd/bf/handoutstext.shtm

The United States Breastfeeding Committee: Breastfeeding and Childcare
http://usbreastfeeding.org/Issue-Papers/Childcare.pdf

New York State Department of Health Breastfeeding Education Activity Package for Grades K–12:
http://www.health.state.ny.us/nysdoh/b_feed

Potential Action Steps

- Identify a state legislator who is supportive of breastfeeding and ask him or her to sponsor quality legislation.
- Contact the managers of local shopping malls that do not have nursing mothers' lounges; encourage and help them to make appropriate accommodations for their patrons.
- Work with state boards that license child care facilities to distribute guidelines for supporting breastfeeding in these settings.
- Recognize companies and noncommercial enterprises that support mothers who breastfeed with publicity and other incentives. Potential recipients include restaurants; businesses (e.g., stores, hair salons); tenants of shopping malls; state, city, and county governments; libraries; zoos, swimming pools, and other recreational facilities; and fitness centers.

Hotlines and Other Information Resources

Definition

Hotlines are telephone numbers that breastfeeding mothers may call for help with immediate problems. Hotlines are staffed by trained specialists or health care providers skilled in breastfeeding and may be locally or regionally operated. Some hotlines seek to connect the mother with in-person assistance after the telephone consultation is over. Other resources for information include Web sites, online chats and forums, pamphlets, tear-off informational sheets, books, and posters.

Rationale

During the **perinatal** period, women often have only limited time to discuss breastfeeding with a health care professional. Further, during many clinical visits, women receive a large amount of information they may have difficulty recalling later on. For many women, printed information received in the clinical setting does not seem sufficient, so they seek further information on their own. Many questions and issues that arise in the early days of breastfeeding can be answered quickly and effectively by someone with expertise in breastfeeding. Because travel in the early days of parenting is challenging, telephone support and information are especially helpful during this period.

Evidence of Effectiveness

A review by the U.S. Preventive Services Task Force in July 2003 determined that printed breastfeeding information such as pamphlets, books, and posters as a freestanding intervention had no effect on breastfeeding initiation or duration in the short term.[46] This review included 30 controlled trials and 5 systematic reviews.

Although printed materials on their own may not have a positive effect on outcomes for breastfeeding, readers should note that these materials are often a component of multifaceted breastfeeding interventions, which have been shown through a **Cochrane review**[41] to effectively increase breastfeeding initiation and duration rates. Neither breastfeeding hotlines nor Web-based breastfeeding support has been evaluated; therefore, their effectiveness is unknown.

Description and Characteristics

Books, pamphlets, tear-off informational sheets, posters, and informational Web sites provide guidance to women who are considering breastfeeding and offer information to breastfeeding mothers about problems or concerns they may have. These resources often offer basic information such as **latch** and positioning of the infant, signs of adequate milk removal, strategies for successful breastfeeding, and where to seek help if needed. Many short texts such as pamphlets and posters address specific issues and target the early days of breastfeeding. These types of materials are often distributed to new mothers during the maternity hospital stay or at early **postpartum** medical or clinic appointments.

Hotlines and online chats and forums are more interactive than the other types of information resources, and they mainly address immediate concerns or questions related to breastfeeding. Many different levels of hotlines exist, including those that are actively staffed 24 hours a day and 7 days a week by staff with advanced training in breastfeeding management; those staffed during working hours only but provide a similar level of support; hotlines offering call-back support to mothers who leave a message describing their needs; pager services similar to "on call" services by other health professionals; and those with minimal staffing, offering call-back support within a week. Many online communities offer "live" chats with IBCLCs, pediatricians, or other health professionals to address breastfeeding issues, while others include only breastfeeding mothers and no professional consultants. Breastfeeding forums are a staple of almost all Web sites dedicated to parenting issues and provide support, information, education, and resources.

Program Examples

La Leche League International (LLLI) sells a wide variety of books on breastfeeding, some with comprehensive information and others that address special situations. In addition to its full-length texts, LLLI has informational tear-off sheets addressing many different issues, such as sore nipples, breastfeeding twins, increasing milk supply, manual expression, "baby blues," milk storage, thrush, allergies, weaning, hospitalization, Down syndrome, fertility, sexuality, special circumstances, and legal rights. LLLI also operates a toll-free telephone line (1-800-525-3243) that is staffed by experienced breastfeeding mothers who are accredited La Leche League Leaders.

The U.S. Department of Health and Human Services' Office on Women's Health offers both a phone support line at 1-800-994-WOMAN and online breastfeeding support at http://www.4woman.gov. The specialists attending these support lines have undergone specific training in breastfeeding management. In addition, an *Easy Guide to Breastfeeding* is available and free to the public in three languages (English, Spanish, and Chinese) and in multiple versions targeting various groups of women (those in the general market, African American, and Native American).

Many states and localities maintain telephone lines for providing breastfeeding support, either independently or in collaboration with other groups working on related maternal and child health issues. Many states have developed coalitions that participate in the National Healthy Mothers Healthy Babies Coalition and offer assistance by trained counselors for breastfeeding support through their phone lines.

Many Web sites are dedicated to breastfeeding information and support. In addition to providing support, information, and other resources, most major breastfeeding Web sites offer intermittent "live" chats with breastfeeding professionals.

Potential Action Steps

- Create and distribute a community-based directory of services for lactation support, pump rental depots, hotlines, and similar resources and update it annually. Distribution sites can include pediatrician and prenatal care provider offices, health departments, day care facilities, places of worship, stores, and restaurants.

- Create and support a statewide hotline providing 24-hour access to trained breastfeeding counselors.

- Make informational tear-off sheets on special breastfeeding issues available to health professionals to aid them in their care of breastfeeding mothers and their breastfed infants.

Resources

La Leche League International:
http://www.lalecheleague.org

Tarrant County, Texas, WIC breastfeeding client services, resources, and hotline:
http://www.tarrantcounty.com/ehealth/cwp/view.asp?A=763&Q=430440

Breastfeeding.com breastfeeding resources:
http://www.breastfeeding.com

U.S. Department of Health and Human Services' Office on Women's Health breastfeeding Web site:
http://www.4woman.gov/Breastfeeding/index.htm

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Expert Panel

Glossary

Expert Panel

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Glossary

AAP	American Academy of Pediatrics
Ankyloglossia	A condition in which movement of the newborn's tongue is restricted by a tight lingual frenulum
BFHI	*Baby Friendly Hospital Initiative*
BPPOP III	Breastfeeding Promotion in Physicians' Office Practices
Breastfeeding dyad	A lactating woman and her breastfed infant or child
CDC	Centers for Disease Control and Prevention
Cochrane Collaboration	An international not-for-profit organization providing up-to-date information about the effects of health care; more information available at http://www.cochrane.org
Cochrane Library	An electronic library consisting of a regularly updated collection of evidence-based medicine databases
Cochrane review	A systematic review conducted on behalf of the Cochrane Collaboration and based on the best available information on health care interventions
Cosleeping	The colocation of mother and infant or child while sleeping, often to promote breastfeeding
Doulas	Women trained to provide psychoemotional support before, during, and after childbirth
Galactogogue	A medication used to promote breast-milk production
Human milk banking	The collection, processing, storage, and distribution by prescription of human milk that has been donated by healthy, lactating women with an overabundance of milk for their own infants

IBCLC	International Board Certified Lactation Consultant
IBFAN	International Baby Food Action Network
ICD	International Classification of Diseases
IDEA	Individuals with Disabilities Education Act
ILCA	International Lactation Consultants Association
INFACT	Infant Feeding Action Coalition of Canada
International Code	The WHO *International Code of Marketing of Breast-Milk Substitutes*
Intrapartum	The time period immediately before, during, and after childbirth, generally considered to be the time from the onset of true labor until the birth of the infant and delivery of the placenta
Latch	The attachment of the breastfed infant or child's mouth to the mother's breast, specifically the nipple and periareolar region of the breast, for the purpose of breastfeeding
LLLI	La Leche League International
Mastitis	A breast infection that can occur during lactation
NABA	National Alliance for Breastfeeding Advocacy
NABA REAL	NABA Research, Education, Advocacy, and Legislation
Neonatal	The time shortly after birth, generally considered to include the first several weeks of life
NICU	Neonatal Intensive Care Unit
NMR	Nursing Mother Room

Perinatal/ peripartum	The time surrounding childbirth, generally considered to include pregnancy and several weeks after childbirth
Postpartum	The time shortly after childbirth, generally considered to include approximately the first 6 weeks following childbirth
Prelacteal feeds	Feedings of liquids other than breast-milk prior to the infant's first consumption of breast-milk
Primiparous	A term to describe a first-time mother
TLC	Trained Lactation Coach
UNICEF	United Nations Children's Fund
USDA	United States Department of Agriculture
WABA	World Alliance for Breastfeeding Action
WHO	World Health Organization
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children (funded by USDA)

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The CDC Guide to Breastfeeding Interventions

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