
Factors Associated With Exclusive Breastfeeding 2 to 4 Weeks Following Discharge From a Large, Urban, Academic Medical Center Striving for Baby-Friendly Designation

Eileen DiFrisco, MA, RN, IBCLC, LCCE

Karen E. Goodman, MA, RN, IBCLC, LCCE

Wendy C. Budin, PhD, RN-BC, LCCE, FACCE, FAAN

Marge W. Lilienthal, MS, RN, NEA-BC

Aviva Kleinman, BSc, BSN, RN-BC, IBCLC

Barbara Holmes, BS, RD, IBCLC

ABSTRACT

Substantial evidence documents the superiority of breastfeeding for mothers and breastmilk for babies. Although the American Academy of Pediatrics and the U.S. Healthy People 2010 initiative promote breastfeeding, current breastfeeding rates often fall short of recommendations. This study determined factors associated with exclusive breastfeeding 2 to 4 weeks following discharge from a large, urban, academic medical center striving for Baby-Friendly designation. Results indicated that mothers who breastfed within the first hour of birth (61%) were significantly more likely to be exclusively breastfeeding 2 to 4 weeks after discharge. Incorporating care practices that include a number of the “Ten Steps to Successful Breastfeeding,” as recommended by the Baby-Friendly Hospital Initiative, may increase the duration of exclusive breastfeeding after discharge.

The Journal of Perinatal Education, 20(1), 28–35, doi: 10.1891/1058-1243.20.1.28

Keywords: exclusive breastfeeding, Baby-Friendly Hospital Initiative, Ten Steps to Successful Breastfeeding, skin to skin

Substantial evidence documents the superiority of breastfeeding for mother and breastmilk for infants (Gartner et al., 2005). The American Academy of Pediatrics, American College of Obstetricians and Gynecologists (ACOG), Association of Women’s

Health, Obstetric and Neonatal Nurses (AWHONN), and many other professional organizations agree that human milk provides developmental, nutritional, and immunological benefits to the infant and cannot be duplicated by formula feeding (American

Academy of Family Physicians, 2008; AWHONN, 2007; Gartner et al., 2005).

Exclusive breastfeeding for the first 6 months of an infant's life has many short- and long-term benefits for both the infant and the mother (Kramer et al., 2003). Breastfeeding reduces the risks of common causes of infant morbidity, including, but not limited to, bacterial meningitis, necrotizing enterocolitis, respiratory tract infection, otitis media, and diarrhea (Bachrach, Schwarz, & Bachrach, 2003; Duncan et al., 1993; Lucas & Cole, 1990). Breastfeeding improves neurodevelopmental outcomes for preterm infants, and may also impact long-term health benefits such as significantly lower rates of juvenile diabetes, ulcerative colitis, lymphomas, obesity, and asthma (Arenz, Rückerl, Koletzko, & Von Kries, 2004; Grummer-Strawn & Mei, 2004; Oddy, Peat, & de Klerk, 2002). Maternal benefits of breastfeeding include facilitation of uterine involution and decreased blood loss following birth, accelerated return to prepregnancy weight, delay of postpartum ovulation, and decreased risk of hip fractures and osteoporosis in postmenopausal women (Paton et al., 2003). Breastfeeding has also been shown to decrease the risk of ovarian and premenopausal breast cancer (Ips et al., 2007; Tryggvadóttir, Tulinius, Eyfjord, & Sigurvinnsson, 2001).

The importance of breastfeeding as a national health goal is evident by the inclusion of five breastfeeding goals in Healthy People 2010 (U.S. Department of Health and Human Services, 2007). The current goals, as well as the national statistics according to the Centers for Disease Control and Prevention (CDC) National Immunization Survey (CDC, 2010b), are indicators of how many mothers initiate breastfeeding and the length of time they continue to breastfeed. Although the national breastfeeding initiation rate is close to Healthy People 2010's target rate of 75% in the early postpartum period, the United States still falls short in achieving the other four goals, especially rates for exclusive breastfeeding (CDC, 2010b; see Table 1).

In their landmark study published in *Pediatrics*, Bartick and Reinhold (2010) found that failure to comply with recommendations pertaining to breastfeeding costs the United States \$13 billion annually and an estimated 911 preventable deaths per year. Costs include medical care as well as indirect costs, such as missed time from work because of illness. The researchers also found that most projected deaths linked to the failure to breastfeed involved sudden infant death syndrome and complications among premature babies.

Growing evidence indicates care practices during the prenatal and intrapartum periods are critical for the success of breastfeeding, particularly exclusive breastfeeding.


Growing evidence indicates care practices during the prenatal and intrapartum periods are critical for the success of breastfeeding, particularly exclusive breastfeeding (CDC, 2008). Effective April 2010, The Joint Commission implemented the new Perinatal Care Core Measure Set that includes exclusively breastmilk-fed, term infants from birth to discharge. The Joint Commission's core measures serve as national, standardized performance measurements providing an assessment of care delivered in a given focus area (The Joint Commission, 2009).

Demographic factors that may influence breastfeeding initiation and continuation rates in the United States include age, culture, socioeconomic status, education level, and family support (Ips et al., 2007). Breastfeeding rates are lowest among women who are non-Hispanic African American, younger than 20 years old, in low economic groups, and enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children, as well as women who have a high school education or less (ACOG Committee on Health Care for Underserved Women and Committee on Obstetric Practice, 2007; CDC, 2010b). Research indicates that hospital-care practices can influence breastfeeding outcomes

TABLE 1
Healthy People 2010 Breastfeeding Goals Versus Actual Rates*

	Healthy People 2010 Goal	Actual U.S. Rate (2006)
Any breastfeeding		
Breastfeeding initiation	75%	74.0%
Breastfeeding continued to 6 months	50%	43.5%
Breastfeeding continued to 1 year	25%	22.7%
Exclusive breastfeeding		
Exclusive breastfeeding through 3 months	40%	33.6%
Exclusive breastfeeding through 6 months	17%	14.1%

Note. *Source: Centers for Disease Control and Prevention. (2010b, July 27). *Breastfeeding among U.S. children born 1999–2007*, CDC National Immunization Survey. Retrieved from http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm

 For more information about Healthy People 2010 objectives for breastfeeding, visit the following link at the Centers for Disease Control and Prevention (CDC) Web site: http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm

across different socioeconomic groups of women. According to findings in a CDC survey, many U.S. hospital routines undermine mothers who want to breastfeed (CDC, 2008). Giving formula to healthy breastfed infants is a common hospital practice, despite evidence from multiple studies that indicates babies who receive formula in the hospital wean earlier than babies who do not receive formula (Bartick, Stuebe, Shealy, Walker, & Grummer-Strawn, 2009). Hospital practices that have been shown to positively impact breastfeeding outcomes include keeping mothers and babies together, limiting the use of artificial nipples and supplementation with formula, eliminating the distribution of formula gift bags at discharge, and providing breastfeeding education for all staff (Bartick et al., 2009; CDC, 2008).

In 1991, the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) established the Baby-Friendly Hospital Initiative as a global program to encourage and recognize hospitals and birthing centers offering optimal levels of care for breastfeeding women and their newborns (WHO & UNICEF, 2009). The core components of the Baby-Friendly Hospital Initiative are the Ten Steps to Successful Breastfeeding (see Table 2), which were designed as evidence-based guidelines to promote, protect, and support breastfeeding in a hospital or birthing-center setting (WHO, 1998). Positive breastfeeding outcomes such as increased initiation rates, longer duration, exclusivity, and improved related childhood outcomes have been reported in settings where a number of the Ten Steps to Successful Breastfeeding are in place (DiGirolamo, Grummer-Strawn, & Fein, 2001). The more steps that are implemented, the greater the likelihood of continuing to breastfeed beyond 6 weeks postpartum (Abrahams & Labbok, 2009).

Although strong evidence supports the Ten Steps to Successful Breastfeeding (hereafter referred to as the "Ten Steps"), hospital compliance in the United States remains a challenge (Bartick et al., 2009). More than 19,000 international hospitals and birthing centers have received the Baby-Friendly designation; however, as of August 3, 2010, only 96 health-care facilities in the United States are recognized as Baby-Friendly (Baby-Friendly USA, 2010). Of these U.S. Baby-Friendly facilities, few are large, urban, academic medical centers. Optimizing breastfeeding support within U.S. medical centers will require cultural changes to incorporate the Ten Steps into daily practices, especially on busy postpartum units. Little

TABLE 2
The Ten Steps to Successful Breastfeeding

The Baby-Friendly Hospital Initiative, which was established in 1991 by the World Health Organization and UNICEF, promotes, protects, and supports breastfeeding in hospital and birthing-center settings through the Ten Steps to Successful Breastfeeding. The steps for hospitals and birthing centers in the United States are the following:*


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 one hour of birth.^a
5. Show mothers how to breastfeed and how to maintain lactation, even if they are 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 pacifiers or artificial nipples to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Note. *Source: Turner-Maffeï, C., & Cadwell, K. (Eds.). (2004). *Overcoming barriers to implementing the Ten Steps to Successful Breastfeeding—Final report*. Sandwich, MA: Baby-Friendly, USA. Retrieved from http://www.babyfriendlyusa.org/eng/docs/BFUSAreport_complete.pdf

^a United States Baby-Friendly time frame to initiate breastfeeding within 1 hour differs from the WHO's original time frame of a half-hour because of U.S. hospital constraints.

is known about how large, urban, academic medical centers confront these challenges (DiGirolamo et al., 2001). There is a need to explore hospital practices that may be associated with exclusive breastfeeding after discharge from busy postpartum units in large, urban, academic medical centers.

Recognizing the difficulty of successfully implementing the Ten Steps, an interdisciplinary breastfeeding performance improvement team was established in September 2003 at a large, urban, academic medical center with 4,600 yearly births. Team members included nurses, physicians, lactation consultants, parent educators, nurse practitioners, and a nurse researcher. The team's primary goal was to promote and develop evidence-based systems of breastfeeding care through written standards, education, and clinical support to breastfeeding families. Over a period of 5 years, numerous practice changes and strategies were initiated, including hiring a full-time

 For more information about Baby-Friendly USA and implementing the UNICEF/WHO Baby-Friendly Hospital Initiative, visit <http://www.babyfriendlyusa.org/>

lactation consultant, offering a daily breastfeeding class to new mothers on the mother–baby unit, implementing a breast-pump rental program, and developing educational activities for both professional and ancillary staff.

In September 2007, after accomplishing many of its initial goals to improve breastfeeding, the team committed to a new goal of achieving Baby-Friendly designation for the medical center. Initially, the team needed to determine the center’s postdischarge breastfeeding rates and indices associated with breastfeeding. Quarterly audits of breastfeeding initiation rates were already in place; however, consistent data for breastfeeding rates after discharge were not available. Members of the team decided to conduct a descriptive research study that involved systematically contacting breastfeeding mothers after discharge. The purpose of the study was to determine factors associated with exclusive breastfeeding 2 to 4 weeks following hospital discharge.

METHODS

The study was conducted using a descriptive survey design. After approval was received from the institutional review board, a convenience sample of mothers who were breastfeeding at discharge (either exclusively or in combination with infant-formula supplementation) was contacted by telephone or by e-mail 2 to 4 weeks after discharge. The mothers were invited to complete a survey via telephone interview or, if they preferred, to complete the survey anonymously online using SurveyMonkey® (www.SurveyMonkey.com) as the Web-based, survey-collector platform. The research assistant who conducted the telephone interviews entered participants’ responses directly into the online survey-response system. Compared to mothers who completed the survey via the telephone interview ($n = 47$), more mothers completed the survey online ($n = 66$). Response rates were higher from participants who used the online survey, with slightly more than 50% of the eligible mothers responding to the online survey and less than 25% responding to the telephone interview. There were no significant differences in study outcomes related to the two methods of data collection.

The survey tool consisted of 28 items, including questions about the mother’s birth experience, hospital stay, and early infant-feeding practices while in the hospital and after discharge. Mothers were asked if their baby received anything besides breastmilk while in the hospital and after discharge and

the reasons for any supplementation. Mothers were also asked a series of questions regarding breastfeeding education they had received from various health professionals prenatally, while in the hospital, and after discharge. Demographic data were also collected. Survey items were developed based on the review of the literature, and content validity was determined by a panel of experts. Evidence of test–retest reliability ($r = .75 - .90$) was confirmed using a subsample of 15 mothers who completed the survey two times approximately 1 week apart (see Table 3 for sample survey items).

The Web-based survey tool had 10 screens with “Prev” and “Next” navigation radio buttons. The survey settings allowed respondents to skip questions that did not apply to them and to go back and change their answers on questions. There were no patient identifiers on the survey, and to ensure participants’ anonymity, the Web-based system was not enabled to track the respondents’ Internet protocol address. Therefore, the researcher was not able to track who had or had not responded to the survey; consequently, reminder e-mails had to be sent to all participants, not just to those participants who had not yet responded.

TABLE 3
Sample of Survey Items

Type of birth
a. Vaginal b. Cesarean
Did you have a single birth or multiples?
a. Single birth b. Twins c. Triplets
Baby’s gestational age in weeks: _____
Have you given birth to any other children?
Did you breastfeed your other children?
Are you still breastfeeding the child you just gave birth to?
If you are still breastfeeding, are you breastfeeding exclusively or offering supplements?
a. Breastfeeding exclusively with no supplements
b. Breastfeeding with one supplement per 24 hours
c. Breastfeeding with 2–3 supplements per 24 hours
d. Breastfeeding with 4 or more supplements per 24 hours
If you are supplementing, are you supplementing with (check all that apply):
a. Expressed breastmilk
b. Formula
c. Other
While you were in the hospital, can you remember when the first time you breastfed your baby?
a. Within the first hour of birth
b. Within 2–3 hours of birth
c. Within 4–6 hours of birth
d. Within 7–24 hours of birth
e. After 24 hours of birth

Mothers who reported breastfeeding within the first hour of birth were significantly more likely to be exclusively breastfeeding at 2 to 4 weeks after discharge.

Five registered nurses and three new mothers pilot tested the Web-based version of the survey to ensure its usability. All who participated in the pilot testing completed the Web-based survey without any technical difficulties, using both Microsoft and Macintosh desktop and laptop computers with various screen sizes.

RESULTS

One hundred thirteen new mothers who gave birth approximately 2 to 4 weeks prior to being contacted for participation in the study responded to the survey. Table 4 presents a sample of the participants' characteristics and clinical status. The mothers' ages ranged from 21 to 44 years old, with a mean age of 33 years ($SD = 4.6$). Among the respondents, 70 (61.9%) had vaginal births and 43 (38.1%) had cesarean births. The study participants' cesarean birth rate was somewhat higher than the hospital's cesarean rate, which was 33% at the time of the survey. Most participants

had single births (96.5%). Eleven babies spent time in the hospital's neonatal intensive care unit; eight of those 11 babies were born by cesarean. All participants were in semiprivate rooms with a roommate. Among the mothers who had previously given birth to other children ($n = 40, 35.4%$), 86% reported they had breastfed those children.

At 2 to 4 weeks after discharge, 87.5% of the mothers reported they were still breastfeeding their infant; however, only 59.2% were exclusively breastfeeding. Slightly more mothers who had vaginal births were still exclusively breastfeeding at 2 to 4 weeks after discharge (65%) compared to mothers who had cesarean births (50%); however, the difference was not significant. Among the mothers who were not exclusively breastfeeding, the most frequently reported reasons for supplementing breastmilk with infant formula were perceptions of not enough milk supply (82.8%), feeling very tired (20.7%), difficulty latching on (17.2%), and to allow the woman's partner to feed the baby (10.3%; see Table 5).

When mothers were asked to recall when they first breastfed their baby after giving birth, 60.2% reported breastfeeding within the first hour. Mothers who had vaginal births were significantly more likely to breastfeed within the first hour of birth (70.6%) than mothers who had cesarean births (42.5%, $\chi^2 [1, n = 96], p = .003$). Mothers who reported breastfeeding within the first hour of birth were significantly more likely to be exclusively breastfeeding at 2 to 4 weeks after discharge ($\chi^2 [1, N = 96] = 8.046, p = .005$) than mothers who did not breastfeed within the first hour of birth

TABLE 4
Sample of Participants' Characteristics and Clinical Status (N = 113)

	Mean	SD	Range
Mother's age	33 years	4.6	21–44 years
Baby's gestational age	39.01 weeks	1.9	31–42 weeks
		<i>n</i>	%
Type of birth			
Vaginal		70	61.9
Cesarean		43	38.1
Single or multiple birth			
Single		109	96.5
Twins		4	3.5
First baby?			
Yes		73	64.6
No		40	35.4
Attended breastfeeding class in hospital?			
Yes		66	58.4
No		44	38.9
No response		3	2.7
Seen by lactation consultant while in hospital?			
Yes		57	50.4
No		52	46.0
No response		4	3.6

TABLE 5
Mothers' Reasons for Supplementing Breastmilk With Formula

	Response Count	Response %
Not enough breastmilk supply	24	82.8
Feeling very tired	6	20.7
Difficulty latching on	5	17.2
So partner could feed the baby	3	10.3
Sore nipples	1	3.4
Return to work	1	3.4
Engorgement	1	3.4
Fussy baby	1	3.4
Lack of family support	0	0
Breast infection/plugged duct	0	0
Planning to wean/currently weaning	0	0

(see Table 6). This was true for all mothers, whether they had vaginal or cesarean births. No other tested variables were significantly associated with exclusive breastfeeding 2 to 4 weeks after discharge.

DISCUSSION

Results from our study indicate that initiating breastfeeding within 1 hour after birth is positively associated with exclusive breastfeeding rates 2 to 4 weeks after discharge from the hospital. The finding supports the benefits of adherence to Step 4 of the Ten Steps to Successful Breastfeeding tenets of the Baby-Friendly Hospital Initiative for facilities in the United States: “Help all mothers initiate breastfeeding within one hour of birth” (Turner-Maffei & Cadwell, 2004, p. 13). The finding is also consistent with previous research that indicates promoting early breastfeeding by placing the baby skin to skin with the mother immediately following birth has a positive effect on exclusive breastfeeding and duration of breastfeeding (Righard & Alade, 1990). Another study also demonstrated that when newborns are placed skin to skin with their mothers, breastfeeding is easier, bonding is enhanced, and babies cry less and stay warmer (Mikiel-Kostyra, Mazur, & Bolstruszko, 2002).

Findings from the present study and previous research are also consistent with Lamaze International’s (2009) six *Healthy Birth Practices*, specifically,

“Healthy Birth Practice #6: Keep Mother and Baby Together—It’s Best for Mother, Baby, and Breastfeeding” (Crenshaw, 2009). The evidence presented in Lamaze’s “Healthy Birth Practice #6” reinforces findings in our study.

Some of the limitations of the study were that the population was predominantly middle class and the sample was self-selected. Recommendations for future research include replicating the study with a more diverse socioeconomic population, which would more accurately capture the potential range of factors that influence breastfeeding initiation, duration, and exclusivity.

Future investigations that include additional variables—specifically, survey questions related to each of the Ten Steps—may elicit results that will help hospital personnel and staff identify where to direct their efforts to achieve the breastfeeding goals of Healthy People 2010. Survey questions could also be worded to mimic questions in the CDC national survey of Maternity Practices in Infant Nutrition and Care (CDC, 2010a) to enable researchers to compare and assess their results with the CDC survey and its findings. Survey items related to prenatal breastfeeding education could provide valuable information for childbirth educators to share best practices with all expectant mothers, instilling confidence in their ability to give birth and to care for their child.

TABLE 6
Cross-Tabulation of Breastfeeding Within First Hour After Birth by Exclusive Breastfeeding 2 to 4 Weeks After Discharge With Chi-Square Analysis*

	Exclusive Breastfeeding 2 to 4 Weeks After Discharge		Total
	Yes	No	
Breastfeeding within first hour			
Yes			
<i>n</i>	44	17	61
% within breastfeeding within first hour	72.1	27.9	100.0
% of Total	45.8	17.7	63.5
No			
<i>n</i>	15	20	35
% within breastfeeding within first hour	42.9	57.1	100.0
% Total	15.6	20.8	36.5
Total			
<i>n</i>	59	37	96
% within breastfeeding within first hour	61.5	38.5	100.0

Note. * $\chi^2(1, N = 96) = 8.046, p = .005$.

Childbirth educators can provide expectant mothers with evidence-based information on healthy birth practices that support and promote breastfeeding.

Collecting breastfeeding data from survey participants over a longer period would also provide important information. For example, conducting follow-up surveys over the course of a year would allow researchers to compare their results with the Healthy People 2010 breastfeeding goals, and would indicate where discrepancies may lie. After the discrepancies are identified, appropriate interventions could be developed and implemented to improve breastfeeding rates.

IMPLICATIONS FOR PRACTICE

As a result of the findings in our study, staff nurses at the large, urban, academic medical center where study participants were recruited developed an in-service education program on the positive effects of skin-to-skin contact and breastfeeding during the first hour after birth. All nurses in the center's labor and delivery unit and mother-baby unit, as well as many of the facility's obstetricians, attended an evidence-based slide presentation describing the benefits for mother and baby of skin-to-skin contact as soon after birth as possible. The presentation also addressed providing skin-to-skin contact for the cesarean-birth baby after the mother is able to respond to her newborn.

We recommend that hospitals support early and frequent skin-to-skin contact and rooming in during the postpartum period. To facilitate breastfeeding within the first hour of birth, women can be encouraged to select a birthing center or hospital that does not routinely separate mothers and their newborns. Childbirth educators can provide expectant mothers with evidence-based information on healthy birth practices that support and promote breastfeeding. Incorporating the Ten Steps to Successful Breastfeeding into their class discussion will help mothers communicate effectively with their health-care providers by discussing their options so they can make informed decisions to have safe, healthy birth.

As U.S. hospitals strive toward Baby-Friendly designation, health-care professionals continue to implement and evaluate other practices that promote exclusive breastfeeding during mothers' and babies' hospital stay and after discharge. The Baby-Friendly

Health Initiative's Ten Steps are evidenced-based, and knowing which steps and interventions yield the greatest results among a hospital's specific patient population will allow hospital staff members to use their resources in the most effective ways to reach the Healthy People 2010 goals for breastfeeding initiation, duration, and exclusivity.

REFERENCES

- Abrahams, S. W., & Labbok, M. H. (2009). Exploring the impact of the Baby-Friendly Initiative on trends in exclusive breastfeeding. *International Breastfeeding Journal*, 4(1), 11. doi:10.1186/1746-4358-4-11
- American Academy of Family Physicians. (2008). *Breastfeeding, family physicians supporting (position paper)*. Retrieved from <http://www.aafp.org/online/en/home/policy/policies/b/breastfeedingpositionpaper.html>
- American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women and Committee on Obstetric Practice. (2007). Special report from ACOG. Breastfeeding: Maternal and infant aspects. *ACOG Clinical Review*, 12(Suppl. 1), 1S-16S.
- Arenz, S., Rückerl, R., Koletzko, B., & Von Kries, R. (2004). Breast-feeding and childhood obesity—A systematic review. *International Journal of Obesity and Related Metabolic Disorders*, 28, 1247-1256.
- Association of Women's Health, Obstetric and Neonatal Nurses. (2007). *Breastfeeding and the role of the nurse in the promotion of breastfeeding—AWHONN position statement*. Retrieved from http://www.awhonn.org/awhonn/content.do?name=05_HealthPolicyLegislation/5H_PositionStatements.htm
- Baby-Friendly USA. (2010). *US Baby-friendly hospitals and birth centers*. Retrieved from <http://www.babyfriendlyusa.org/eng/03.html>
- Bachrach, V. R. G., Schwarz, E., & Bachrach, L. R. (2003). Breastfeeding and the risk of hospitalization for respiratory disease in infancy: A meta-analysis. *Archives of Pediatrics & Adolescent Medicine*, 157(3), 237-243.
- Bartick, M., & Reinhold, A. (2010). The burden of sub-optimal breastfeeding in the United States: A pediatric cost analysis. *Pediatrics*, 125, e1048-e1056.
- Bartick, M., Stuebe, A., Shealy, K. R., Walker, M., & Grummer-Strawn, L. M. (2009). Closing the quality gap: Promoting evidence-based breastfeeding care in the hospital. *Pediatrics*, 124, e793-e802.
- Centers for Disease Control and Prevention. (2008, June 13). Breastfeeding-related maternity practices at hospital and birth centers—United States, 2007. *MMWR Weekly*, 57(23), 621-625.
- Centers for Disease Control and Prevention. (2010a, July 13). *2007 CDC national survey of Maternity Practices in Infant Nutrition and Care (mPINC)*. Retrieved from <http://www.cdc.gov/breastfeeding/data/mpinc/index.htm>
- Centers for Disease Control and Prevention. (2010b, July 27). *Breastfeeding among U.S. children born 1999-2007, CDC National Immunization Survey*. Retrieved from http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm

- Crenshaw, J. (2009, July). *Healthy birth practice #6: Keep mother and baby together—It's best for mother, baby, and breastfeeding*. Retrieved from <http://www.lamaze.org/Portals/0/carepractices/CarePractice6.pdf>
- DiGirolamo, A. M., Grummer-Strawn, L. M., & Fein, S. (2001). Maternity care practices: Implications for breastfeeding. *Birth*, 28(2), 94–100.
- Duncan, B., Ey, J., Holberg, C. J., Wright, A. L., Martinez, F. D., & Taussig, L. M. (1993). Exclusive breast-feeding for at least 4 months protects against otitis media. *Pediatrics*, 91, 867–872.
- Gartner, L. M., Morton, J., Lawrence, R. A., Naylor, A. J., O'Hare, D., Schanler, R. J., . . . American Academy of Pediatrics Section on Breastfeeding. (2005). Breastfeeding and the use of human milk. *Pediatrics*, 115(2), 496–506.
- Grummer-Strawn, L. M., & Mei, Z. (2004). Does breastfeeding protect against pediatric overweight? Analysis of longitudinal data from the Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System. *Pediatrics*, 113(2), e81–e86. Retrieved from <http://pediatrics.aappublications.org/cgi/content/full/113/2/e81>
- Ips, S., Chung, M., Raman, G., Chew, P., Magula, N., DeVine, D., . . . Lau, J. (2007, April). *Breastfeeding and maternal and infant health outcomes in developed countries, Evidence Report/Technology Assessment No. 153* (AHRQ Publication No. 07-E007). Rockville, MD: Agency for Healthcare Research and Quality.
- The Joint Commission. (2009, July 20). *Joint Commission national quality core measures—Perinatal care core measure set*. Retrieved from <http://www.jointcommission.org/PerformanceMeasurement/PerformanceMeasurement/Perinatal+Care+Core+Measure+Set.htm>
- Kramer, M. S., Guo, T., Platt, R. W., Sevkovskaya, Z., Dzikovich, I., Collet, J. P., . . . Bogdanovich, N. (2003). Infant growth and health outcomes associated with 3 compared with 6 mo of exclusive breastfeeding. *The American Journal of Clinical Nutrition*, 78(2), 291–295.
- Lamaze International. (2009, July). *Lamaze healthy birth practices*. Retrieved from <http://www.lamaze.org/ChildbirthProfessionals/ResourcesforProfessionals/CarePracticePapers/tabid/90/Default.aspx>
- Lucas, A., & Cole, T. J. (1990). Breast milk and neonatal necrotising enterocolitis. *Lancet*, 336, 1519–1523.
- Mikiel-Kostyra, K., Mazur, J., & Boltruszko, I. (2002). Effect of early skin-to-skin contact after delivery on duration of breastfeeding: A prospective cohort study. *Acta Paediatrica*, 91(12), 1288–1289.
- Oddy, W. H., Peat, J. K., & de Klerk, N. H. (2002). Maternal asthma, infant feeding, and the risk of asthma in childhood. *Journal of Allergy and Clinical Immunology*, 110(1), 65–67.
- Paton, L. M., Alexander, J. L., Nowson, C. A., Margerison, C., Frame, M. G., Kaymakci, B., . . . Wark, J. D. (2003). Pregnancy and lactation have no long-term deleterious effect on measures of bone mineral in healthy women: A twin study. *The American Journal of Clinical Nutrition*, 77, 707–714.
- Righard, L., & Alade, M. O. (1990). Effect of delivery room routines on success of first breast-feed. *Lancet*, 336(8723), 1105–1107.
- Tryggvadóttir, L., Tulinius, H., Eyfjord, J. E., & Sigurvinsson, T. (2001). Breastfeeding and reduced risk of breast cancer in an Icelandic cohort study. *American Journal of Epidemiology*, 154(1), 37–42.
- Turner-Maffeï, C., & Cadwell, K. (Eds.). (2004). *Overcoming barriers to implementing the Ten Steps to Successful Breastfeeding—Final report*. Sandwich, MA: Baby-Friendly USA. Retrieved from http://www.babyfriendlyusa.org/eng/docs/BFUSAreport_complete.pdf
- U.S. Department of Health and Human Services. (2007). Maternal, infant, and child health: Breastfeeding, newborn screening, and service systems—Objective 16–19. Increase the proportion of mothers who breastfeed their babies [Revised]. In *Healthy People 2010 mid-course review* (pp. 16–30–16–31). Retrieved from www.usbreastfeeding.org/LegislationPolicy/FederalPolicies/HealthyPeople2010BreastfeedingObj
- World Health Organization. (1998). *Evidence for the Ten Steps to Successful Breastfeeding*. Geneva, Switzerland: Author.
- World Health Organization, & United Nations Children's Fund. (2009). *Baby-Friendly Hospital Initiative: Revised, updated and expanded for integrative care*. Geneva, Switzerland: World Health Organization.

EILEEN DiFRISCO is the coordinator for Parent Education at NYU Langone Medical Center. KAREN E. GOODMAN is the nurse manager of the Mother-Baby Unit at NYU Langone Medical Center. WENDY C. BUDIN is the director of nursing research at NYU Langone Medical Center and a clinical professor at New York University, College of Nursing. Budin is also a fellow in the American College of Childbirth Educators and the editor-in-chief of The Journal of Perinatal Education. MARGE W. LILIENTHAL is the senior director of nursing for Women's and Children's Services at NYU Langone Medical Center. AVIVA KLEINMAN is a nurse clinician on the Mother-Baby Unit at NYU Langone Medical Center. BARBARA HOLMES is the lactation consultant for Women's and Children's Services at NYU Langone Medical Center.