

Academy of Breastfeeding Medicine
Annotated Bibliography:

The Breastfeeding-Friendly Physicians' Office

INTRODUCTION

This scientific literature review encompasses articles written in English and published between 1995 and 2012 relevant to the establishment of a breastfeeding –friendly physician practice. A mother’s prenatal intention to breastfeed is influenced to a great extent by the opinion and support of the healthcare providers she encounters. Ongoing parental support through in-person visits and phone contacts with healthcare providers usually results in increased breastfeeding duration. Healthcare providers who interact with mothers and babies are in a unique position to contribute to the initial and ongoing support of the breastfeeding dyad. A total of 42 peer-reviewed scientific papers were identified as being relevant to this subject matter and are included in this document.

Reference	Content	Level of Evidence
1. General Breastfeeding Information		
Eidelman AI, Schanler RJ, Johnston M, et al. American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk. <i>Pediatrics</i> . 2012;129(3):e827-84.	Policy statement based on over 200 primary resources. Exclusive breastfeeding is recommended for 6 months with continuation for a year or more as foods are introduced. All preterm infants should receive human milk and if mother’s own milk is unavailable pasteurized donor milk should be used. Galactosemia is the only infant contraindication to breastfeeding. Recommends implementation of specific postpartum hospital practices which increase breastfeeding success including early skin-to-skin contact and breastfeeding, exclusive breastfeeding with no water, glucose water, or commercial infant formula supplementation unless medically indicated, rooming-in with unrestricted breastfeeding, avoidance of pacifiers and a plan for follow-up after discharge from the hospital.	III
ABM Clinical Protocol #7: Model Breastfeeding Policy (Revisions 2010). <i>Breastfeed Med</i> . 2010;5(4):173-177.	ABM protocol citing the most important elements for both inpatient and outpatient breastfeeding policies. A complete review of the literature was undertaken to develop this protocol.	III
ABM Clinical Protocol #3: Hospital guidelines for the use of supplementary feedings in the healthy, term breastfed neonate, revised 2009. <i>Breastfeed Med</i> . 2009;4(3):175-182.	ABM protocol that reviews all the evidence-based criteria for medical indications for supplementation with infant formula.	III

<p>World Health Assembly. The global strategy for infant and young child feeding. World Health Organization, Geneva, Switzerland, 2003. Accessed April 13, 2012. Available at: http://www.who.int/nutrition/publications/infantfeeding/924159120X/en/index.html</p>	<p>This is a policy paper from WHO and UNICEF regarding ideal infant feeding practices to reduce morbidity and mortality in the developing world. It notes that without ideal infant nutrition, poverty reduction will not occur in developing countries. The policy statement reaffirms support for 6 months of exclusive breastfeeding, and reiterates the need for WHO and UNICEF to continue to support the Baby Friendly Hospital Initiative, the Innocenti Declaration and the International Code of Marketing of Breastmilk Substitutes.</p>	<p>III</p>
<p>2. Antenatal BF education and support</p>		
<p>Mattar C, Chong Y, Chan Y, et al. Simple Antenatal Preparation to Improve Breastfeeding Practice: A Randomized Controlled Trial. <i>Obstet Gynecol.</i> 2007; 109(1):73-80.</p>	<p>A randomized controlled trial of 401 women in Singapore showed that antenatal individual counseling from a lactation counselor was superior to routine care. Exclusive and predominant breastfeeding improved at 3 months (odds ratio [OR] 2.6, 95% confidence interval [CI] 1.2–5.4) and 6 months (OR 2.4, 95% CI 1.0–5.7) postpartum.</p>	<p>I</p>
<p>Kandiah J, Burian C, Amend V. Teaching New Mothers about Infant Feeding Cues May Increase Breastfeeding Duration. <i>Food and Nutrition Science.</i> 2011; 2:259-264.</p>	<p>This pilot study trialed educating prenatal women regarding infant feeding cues and behaviors. At 26 weeks, increased duration of breastfeeding approached significance in the experimental group (chi square = 2.907, df = 1, p = 0.088), indicating probability of continuing to breastfeed was about 28% better for those taught feeding cues.</p>	<p>II-2</p>
<p>3. Community-based breastfeeding support programs</p>		
<p>Paul IM, Beiler JS, Schaefer EW, et al. A Randomized Trial of Single Home Nursing Visits vs. Office-Based Care After Nursery/Maternity Discharge: The Nurses for Infants Through Teaching and Assessment After the Nursery (NITTANY) Study. <i>Arch Pediatr Adolesc Med.</i> 2012; 166(3):263-70.</p>	<p>A randomized, controlled trial of 1154 postpartum mothers intending to breastfeed compared the 48-72 hour post-hospital discharge visit conducted at home by a visiting nurse to standard office-based care. Visit compliance was higher in the home-visit group and rates of breastfeeding were higher in the at-home group at both 2 weeks (92.3% vs. 88.6%, P=0.04) and 2 months (72.1 vs. 66.4%, P=0.05).</p>	<p>I</p>
<p>Bunik M, Shobe P, O'Connor ME, et al. Are 2 weeks of daily breastfeeding support insufficient to overcome the influences of formula? <i>Acad Pediatr.</i> 2010; 10(1):21-8.</p>	<p>A randomized controlled trial of 341 low-income Latina mothers in Denver compared two weeks of daily, telephone breastfeeding support to usual care. No differences in rates of formula supplementation by 2 weeks were seen between the two groups, as formula was perceived by most study participants to be a good way to handle breastfeeding difficulties.</p>	<p>I</p>
<p>Chapman DJ, Morel K, Anderson AK, Damio G, Perez-Escamilla R. Review: Breastfeeding Peer Counseling: From Efficacy Through Scale-Up. <i>J Hum Lact.</i> 2010; 26(3): 314-32.</p>	<p>A systematic review of randomized trials assessing effectiveness of breastfeeding peer counseling (PC) in improving rates of breastfeeding initiation, duration, exclusivity, and maternal and child health outcomes. Peer counselors effectively improve rates of breastfeeding initiation, duration, and exclusivity. Interventions with antenatal and perinatal PC components have more impact on initiation rates and on-going, in-person PC is important for improving duration.</p>	<p>I</p>

<p>Pugh LC, Serwint JR, Frick KD, et al. A randomized controlled community-based trial to improve breastfeeding rates among urban low-income mothers. <i>Acad Pediatr.</i> 2010; 10(1):14-20.</p>	<p>A trial of 368 mother-infant dyads in an underserved, urban, U.S. setting randomized two groups to receive either intensive, multi-faceted breastfeeding support, or standard care. The intervention group received prenatal counseling, home visits, telephone support and access to a 24 hour breastfeeding support pager. The intervention group had an higher OR of breastfeeding at 6 weeks postpartum of 1.71 (95% CI 1.07-2.76).</p>	<p>I</p>
<p>4. Workplace breastfeeding support programs</p>		
<p>Ortiz J, McGilligan K, Kelly P. Duration of breast milk expression among working mothers enrolled in an employer-sponsored lactation program. <i>Pediatr Nurs.</i> 2004;30(2):111–119.</p>	<p>In this study of 462 mothers enrolled in a corporate lactation program at 5 separate companies, the program provided a CLC, breastfeeding classes, and pumping rooms with equipment. 97.5% of the mothers initiated breastfeeding, and 58.7% continued for at least 6 months. 78.9% attempted milk expression in the workplace and 98% of these women were successful. The mean age of pumping at work cessation was 9.1 months.</p>	<p>II-2</p>
<p>United States Department of Health and Human Services. The Business Case for Breastfeeding. Accessed March 26, 2012. Available at: http://www.womenshealth.gov/breastfeeding/government-in-action/business-case-for-breastfeeding/</p>	<p>This is a series of 5 quite comprehensive booklets with the purpose of promoting breastfeeding in the workplace. The different publications address business managers, supporting breastfeeding employees, building a lactation support program, and employees guide to breastfeeding and outreach marketing guide.</p>	<p>III</p>
<p>5. Primary care-based breastfeeding support/promotion programs (general)</p>		
<p>Ibanez G, de Saint Michel C, Denantes M, Saurel-Cubizolles MJ, Virginie Ringa V, Magnier AM. Systematic review and meta-analysis of randomized controlled trials evaluating primary care-based interventions to promote breastfeeding in low-income women. <i>Fam Pract.</i> 2011; 0:1-10.</p>	<p>Office-based educational programs are effective and increasing breastfeeding initiation [relative risk (RR) for starting BF, 1.46, 95% confidence interval (CI): 1.03–2.08]. Benefits continued with higher success rates after 3-month postpartum (RR: 1.15, 95% CI: 1.01–1.30). The successful programs usually involved multiple ‘short’ follow-up appointments (<20 to 30 minutes).</p>	<p>I</p>
<p>Britton C, McCormick FM, Renfrew MJ, Wade A, King SE. Support for breastfeeding mothers (Review). <i>Cochrane Libr.</i> 2009; 4.</p>	<p>Systematic review of 34 studies, from 14 countries, including almost 30,000 women comparing extra support with routine maternity care. "Lay support is effective in promoting exclusive breastfeeding and any breastfeeding. Support offered by professionals and lay people together can be effective in prolonging any breastfeeding, especially within the first two months. Face-to-face support appears to be more effective than support by telephone."</p>	<p>I</p>

<p>Chung M, Raman G, Trikalinos T, Lau J, Ip S. Interventions in primary care to promote breastfeeding: an evidence review for the U.S. Preventive Services Task Force. <i>Ann Intern Med.</i> 2008;149(8):565-82.</p>	<p>A meta-analysis of 38 randomized controlled trials of breastfeeding promotion strategies in primary care settings in developed countries and 2 on BFHI in developing countries. Interventions initiated from a clinician's practice improved both short- (1 to 3 months) and long-term (6 to 8 months) exclusive breastfeeding (rate ratios, 1.28 [95% CI, 1.11 to 1.48] and 1.44 [CI, 1.13 to 1.84], respectively).</p>	<p>I</p>
<p>Labarere J, Gelbert-Baudino N, Ayril A-S, et al. Efficacy of breastfeeding support provided by trained clinicians during an early, routine, preventive visit: a prospective, randomized, open trial of 226 mother-infant pairs. <i>Pediatrics.</i> 2005;115:139-146.</p>	<p>This is a prospective, randomized open trial designed to demonstrate whether an early (within 2 weeks), routine, preventive visit in the office of a physician who has been trained with a 5-hour program in breastfeeding would have a positive impact. Mothers in the intervention group were more likely to report exclusive breastfeeding at 4 weeks, longer breastfeeding duration, and fewer breastfeeding difficulties.</p>	<p>I</p>
<p>de Oliveira M, Camacho L, Tedstone A. A method for the evaluation of primary health care units' practice in the promotion, protection, and support of breastfeeding: Results from the state of Rio de Janeiro, Brazil. <i>J Hum Lact.</i> 2003;19(4):365-373.</p>	<p>24 public Primary Health Care (PHC) Units in Rio de Janeiro, Brazil in 1999 were evaluated for effectiveness enabling mothers to breastfeed, based on a score Breastfeeding Friendly Primary Care Ten Steps (based on BFHI). Outcomes were satisfaction of women with breastfeeding support given and current feeding status of 2458 infants. In the 11 PHCs with lower scores rates of exclusive BF were significantly lower.</p>	<p>II-2</p>
<p>Cardoso LO, Vicente AS, Damião JJ, Rito RV. The impact of implementation of the Breastfeeding Friendly Primary Care Initiative on the prevalence rates of breastfeeding and causes of consultations at a basic healthcare center. <i>J Pediatr (Rio J).</i> 2008; 84(2):147-53.</p>	<p>After certification of a large urban health center in Brazil by a Breastfeeding Friendly Primary Care Initiative, a study of 200 newborns found that rates of exclusive breastfeeding improved for those under 4 months old (68% vs. 88%, P<0.001), those 4 to 6 months old (41% vs. 82%, P<0.001), and especially in the 9 to 12 months old population (24% vs. 82%, P<0.001).</p>	<p>II-3</p>
<p>Betzold C, Laughlin K, Shi C. A family practice breastfeeding education pilot program: an observational, descriptive study. <i>Int Breastfeed J.</i> 2007;2:4.</p>	<p>33 mothers were given questionnaires about their breastfeeding goals then given educational handouts at prenatal checks and well baby checks. "Post-intervention there was a 200% increase (15/31) in the exclusively breastfeeding 4-6 month group and a 160% increase (13/33) in the 6-12 month duration group."</p>	<p>II-3</p>
<p>Shariff F, Levitt C, Kaczorowski J, et al. Workshop to implement the baby-friendly office initiative. Effect on community physicians' offices. <i>Can Fam Physician.</i> 2000;46:1090-1097.</p>	<p>A workshop promoting "10 Steps to a Baby Friendly Office (BFO)" was conducted for office staff of 46 offices, administered to early-intervention and late-intervention groups. The workshop had a modest impact, improving mean scores from 4.3 to 5.6 (p<0.001) maintained at 6 and 12 months post-intervention.</p>	<p>II-3</p>
<p>6. Primary care-based breastfeeding support/promotion programs (IBCLCs)</p>		

<p>Thurman S, Allen P. Integrating Lactation Consultants Into Primary Health Care Services: Are Lactation Consultants Affecting Breastfeeding Success? <i>Pediatr Nurs.</i> 2008;34(5):419-425</p>	<p>This integrative literature review evaluates studies comparing use of an International Board Certified Lactation Consultant (IBCLC) vs. nonuse in outpatient settings. Search yielded five studies which suggest positive correlation between IBCLC use and breastfeeding duration; however, the reliability and validity of the outcomes of these studies could not be ascertained due, in part, to small homogenous sample sizes and other limitations of study design.</p>	<p>I</p>
<p>Lawlor-Smith C, McIntyre E, Bruce J. Effective breastfeeding support in a general practice. <i>Aust Fam Physician.</i> 1997;26(5):573-575, 578-580.</p>	<p>In this 12-month pilot study IBCLCs contacted 119 mothers twice prenatally, once in hospital postpartum and at 2 days, 1 wk, every other week until 1 month and monthly until 6 mos. Compared with historical controls fewer mothers experienced engorgement and rates of "solely" breastfeeding were higher at 26 wks (p = 0.018).</p>	<p>II-2</p>
<p>Witt AM, Smith S, Mason MJ, Flocke SA. Integrating routine lactation consultant support into a pediatric practice. <i>Breastfeed Med.</i> 2012;7(1):38-42.</p>	<p>A large primary care practice employed a certified lactation consultant to conduct the first post-hospital well infant visit; the visit was overseen by a physician. In a pre/post analysis, non-formula feeding improved by the following percentages: 10% at 2 months, 15% at 4 months, 11% at 6 months, 9% at 9 months.</p>	<p>II-3</p>
<p>7. Influence of physician opinion/practice patterns on breastfeeding</p>		
<p>Taveras EM, Li R, Grummer-Strawn L, et al. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. <i>Pediatrics.</i> 2004;113(4):e283-90.</p>	<p>Prospective cohort study of 429 mother-infant pairs regarding breastfeeding counseling during routine well baby and postpartum visits at a large, urban, multi-specialty group practice. Phone interviews with mothers uncovered significant communication gaps in physician counseling regarding ideal breastfeeding duration and plans for return to work.</p>	<p>II-2</p>
<p>Taveras EM, Capra AM, Braveman PA, Jensvold NG, Escobar GJ, Lieu TA. Clinical support and psychosocial risk factors associated with breastfeeding discontinuation. <i>Pediatrics.</i> 2003;112:108-115.</p>	<p>This was a prospective cohort study of 116 mother-infant pairs in a health maintenance organization. The authors examined factors associated with breastfeeding termination at 2 and 12 weeks. They found that clinician encouragement to breastfeed was associated with a much lower rate of breastfeeding discontinuation at 12 weeks (OR 0.6, 95% CI 0.4-0.8).</p>	<p>II-2</p>
<p>Lu MC, Lange L, Slusser W, Hamilton J, Halfon N. Provider encouragement of breastfeeding: Evidence from a national survey. <i>Obstet Gynecol.</i> 2001;97:290-295.</p>	<p>In a national phone survey of 1229 U.S. women with a child 3y old or younger, receipt of encouragement from "doctors/nurses" to breastfeed, particularly in populations less likely to breastfeed, provider encouragement significantly increased breastfeeding initiation. The difference was more than threefold among low-income, young, and less educated women; by nearly fivefold among black women; and by nearly 11-fold among single women.</p>	<p>II-2</p>

<p>Taveras EM, Li R, Grummer-Strawn L, et al. Mothers' and clinicians' perspectives on breastfeeding counseling during routine preventive visits. <i>Pediatrics</i>. 2004;113(5):e405-11.</p>	<p>A cross-sectional study of primary care provider ability to solve breastfeeding problems in the first 12 weeks of life. Mothers who discontinued breastfeeding by 12 weeks were more likely to have had problems with latch or suck, AOR 3.8 (95% CI, 1.5-9.7), or to have had a physician recommend formula supplementation, AOR 2.3 (1.1-5.0).</p>	<p>II-3</p>
<p>Szucs KA, Miracle DJ, Rosenman MB. Breastfeeding knowledge, attitudes, and practices among providers in a medical home. <i>Breastfeed Med</i>. 2009;4(1):31-42.</p>	<p>A large qualitative study in a pediatric residency continuity clinic setting, demonstrating that many of the medical, nursing and ancillary staff was not well equipped with the necessary knowledge or positive attitudes to support the mother-infant dyads in their medical home. Many used their personal experiences instead of evidence from the AAP or ABM regarding breastfeeding issues.</p>	<p>III</p>
<p>8. Physician education and breastfeeding</p>		
<p>Feldman-Winter L, Barone L, Milcarek B, et al. Residency curriculum improves breastfeeding care. <i>Pediatrics</i>. 2010;126(2):289-97.</p>	<p>417 residents in 6 residency programs in pediatrics, family medicine and obstetrics-gynecology formed the experimental group of a prospective cohort study of a breastfeeding education program. Compared with residents in 7 control programs, the residents in the intervention programs had increased breastfeeding knowledge, practice patterns and confidence; breastfeeding rates improved in these programs 6 months after the intervention AOR 4.1 (1.8-9.7).</p>	<p>II-2</p>
<p>Feldman –Winter LB, Shanler RJ, O’Connor KG, Lawrence RA. Pediatricians and the Promotion and Support of Breastfeeding. <i>Arch Pediatr Adolesc Med</i>. 2008 Dec;162(12):1142-9.</p>	<p>875 U.S. pediatricians were surveyed in 2004 about breastfeeding knowledge, attitudes, and practices. In comparison with 1995 data, respondents were more likely to recommend exclusive BF and follow hospital policies supportive of BF but they “were less likely to believe that the benefits of breastfeeding outweigh the difficulties or inconvenience.” Fewer pediatricians believed that almost all mothers are able to succeed, and more reported reasons to recommend against breastfeeding.</p>	<p>II-2</p>
<p>O'Connor M, Brown E, Orkin Lewin L. An Internet-Based Education Program Improves Breastfeeding Knowledge of Maternal–Child Healthcare Providers. <i>Breastfeed Med</i>. 2011; 6(6): 421-427.</p>	<p>A pre- and post-intervention study of health care providers’ breastfeeding knowledge showed that a free Internet course improved breastfeeding knowledge. Knowledge about normal growth in breastfed infants was particularly poor.</p>	<p>II-3</p>
<p>Hillenbrand K, Larsen P. Effect of an educational intervention about breastfeeding on the knowledge, confidence, and behaviors of pediatric resident physicians. <i>Pediatrics</i>. 2002;110(5):e59.</p>	<p>This was a single center educational intervention to improve breastfeeding knowledge, confidence and behaviors in pediatric residents. Through pre-post surveys, there was significant increase in knowledge and confidence. By surveying clinic patients by telephone after well child visits, the authors showed that acceptable breastfeeding practices had increased.</p>	<p>II-3</p>

<p>Freed G, Clark S, Sorenson J, Lohr JA, Cefalo R, Curtis P. National assessment of physicians' breastfeeding knowledge, attitudes, training, and experience. <i>JAMA</i>. 1995;273(6):472-476.</p>	<p>A national survey conducted in 1994 of 3,115 residents and 1,920 practicing physicians in pediatrics, family medicine and obstetrics and gynecology demonstrated that there were major deficits in knowledge about basic medical breastfeeding. Less than half of residents knew how to correctly manage a breastfeeding infant with jaundice, and 30% of practicing physicians could correctly manage low milk supply.</p>	<p>II-3</p>
<p>9. Formula advertising and breastfeeding</p>		
<p>Howard C, Howard F, Lawrence R, et al. Office prenatal formula advertising and its effect on breastfeeding patterns. <i>Obstet Gynecol</i>. 2000;95(2):296-303.</p>	<p>This is a single-blinded RCT of formula-company sponsored breastfeeding promotion gift packs vs. packages without any commercial materials distributed to pregnant women at their first prenatal appointments. In an analysis of 584 women, exposure to commercial breastfeeding promotion packages was associated with a higher rate of breastfeeding cessation prior to hospital discharge, and before 2 weeks.</p>	<p>I</p>
<p>Rosenberg KD, Eastham CA, Kasehagen LJ, Sandoval AP. Marketing infant formula through hospitals: the impact of commercial hospital discharge packs on breastfeeding. <i>Am J Public Health</i>. 2008;98(2):290-5.</p>	<p>Almost two-thirds of the 3,895 women in this sub-analysis of the 2000-2001 Oregon PRAMS study received a commercial formula pack. Those who received it were significantly less likely to be exclusively breastfeeding at 10 weeks with an AOR of 1.39 (1.05, 1.84)</p>	<p>II-2</p>
<p>10. Pacifiers and breastfeeding</p>		
<p>O'Connor NR, Tanabe KO, Siadaty MS, Hauck FR. Pacifiers and Breastfeeding: A Systematic Review. <i>Arch Pediatr Adolesc Med</i>. 2009;163(4):378-382.</p>	<p>Systematic review of 4 randomized controlled trials as well as 20 cohort and 5 cross-sectional studies. The RCTs did not show a difference in breastfeeding duration based on pacifier use, but there was significant crossover in all the trials. Seventeen observational studies reported an odds ratio, relative risk or hazard ratio of shortened duration or exclusivity of breastfeeding with pacifier use for all the respective outcomes studied while 8 found no difference.</p>	<p>I</p>
<p>Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cup feeding and their effect on breastfeeding. <i>Pediatrics</i>. 2003;111(3):511-518.</p>	<p>RCT of 700 healthy newborns, demonstrated that pacifier use in the first 4 weeks of life lessened the likelihood of exclusive breastfeeding at 1 month and early pacifier introduction had a negative impact on overall breastfeeding duration. Cup-feeding when supplements were needed prolonged exclusive breastfeeding by approximately 10 days, full breastfeeding by 5 weeks, and overall breastfeeding by 10 weeks among mothers delivered by Cesarean.</p>	<p>I</p>
<p>11. Newborn jaundice and BF</p>		
<p>American Academy of Pediatrics Subcommittee on Hyperbilirubinemia. Management of Hyperbilirubinemia in the Newborn Infant 35 or more weeks of gestation. <i>Pediatrics</i>. 2004;114:297-316.</p>	<p>This clinical practice guideline from the American Academy of Pediatrics recommends blood typing of the mother during pregnancy, permitting nursing staff to order bilirubin measurements, interpreting of bilirubin levels based on infant age in hours, determining the underlying cause of newborn jaundice, a jaundice risk assessment prior to hospital discharge, and assessment by a qualified health professional 24 to 72 hours after discharge.</p>	<p>III</p>

12. Family support		
<p>Wolfberg AJ, Michels KB, Shields W, O’Campo P, Bronner Y, Bienstock J. Dads as breastfeeding advocates: Results from a randomized controlled trial of an educational intervention. <i>Am J Obstet Gynecol.</i> 2004;191(3):708–712.</p>	<p>A small trial of 59 fathers in inner-city Baltimore who were randomly assigned to attend a breastfeeding promotion class or a parenting class without a breastfeeding component. The study was limited by participant bias as 567 women were approached to participate. Infants of the fathers who attended the breastfeeding class has a 74% rate of breastfeeding initiation, whereas infants of the fathers who attended the control class had only a 41% rate (P=0.02).</p>	<p>II-1</p>
13. Baby-Friendly Hospital Initiative (BFHI)		
<p>DiGirolamo A, Grummer-Strawn L. Effect of Maternity Care Practices on Breastfeeding. <i>Pediatrics.</i> 2008; 122: S43.</p>	<p>U.S. Infant Feeding Practices Study II data were used to evaluate the prevalence of Steps 4 and 6-10 of the BFHI in U.S. hospitals. In a controlled analysis of 1907 mothers who initiated and intended to breastfeed for >2 mos, “Baby-Friendly” hospital practices that were consistently associated with longer breastfeeding duration included breastfeeding initiation within 1 hour of birth, giving only breast milk, and not giving any pacifiers.</p>	<p>II-2</p>
<p>UNICEF Breastfeeding Initiatives Exchange. The Baby Friendly Hospital Initiative. Accessed April 7, 2012. Available at: http://www.unicef.org/programme/breastfeeding/baby.htm</p>	<p>An effort by UNICEF and WHO to ensure all maternity facilities become centers of breastfeeding support. A facility is accredited following a structured process of self-appraisal and external review. The Ten Steps include having a written policy, training staff, informing pregnant women about breastfeeding, practicing rooming-in, giving newborns only breast milk and encouraging feeding on demand.</p>	<p>X</p>

Suggestions for Further Research:

1. A large, multicenter, prospective, randomized study should evaluate the use of an International Board Certified Lactation Consultant (IBCLC) vs. non use in the outpatient setting. The control group will have "usual breastfeeding support." Outcomes assessed should include the duration of exclusive breastfeeding and duration of non-formula feeding after the introduction of complementary foods, ideally following breastfeeding rates until at least 1 year of age. A retrospective trial of this intervention at a single site showed an improvement in non-formula feeding but a multicenter trial will evaluate effectiveness in other settings.
2. A large multicenter trial should evaluate the effectiveness of having mothers set breastfeeding goals. A very small pilot study showed that an intervention which included educational handouts and mothers setting breastfeeding goals increased breastfeeding duration and exclusivity. A larger study should employ the intervention at each prenatal and well-baby visit up to one year, even if prenatal care and well-baby care are delivered at separate sites (i.e. an obstetrics office and a pediatric office.) The intervention should be evaluated in different populations, with greater ethnic and socioeconomic diversity and specifically including high-risk populations. Should this intervention prove effective across varied populations, the surveys and handouts could be used to develop a standard tool that could be easily reproduced and distributed, analogous to those used to assess developmental milestones.

3. A large pre- and post-intervention trial should evaluate the impact on of continuing medical education about breastfeeding for practicing physicians. Outcomes assessed should include rates of breastfeeding initiation, exclusivity and non-formula feeding after the introduction of complementary foods.

***US Preventive Services Task Force Ranking of Evidence from Scientific Studies**

- I Evidence obtained from at least one properly randomized controlled trial.
- II-1 Evidence obtained from well-designed controlled trials without randomization.
- II-2 Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.
- II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of the introduction of penicillin treatment in the 1940s) could be regarded as this type of evidence.
- III Opinions of respected authorities, based on clinical experience, descriptive studies and case reports; or reports of expert committees.

The Academy of Breastfeeding Medicine, Inc.
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