



Centers for Disease Control and Prevention (CDC)  
Atlanta GA 30333

October 26, 2016

«cRecipient»  
«FacName»  
«FacStreet»  
«FacCity», «FacST» «FacZIP»

Dear «cRecipient» :

Thank you for participating in the Centers for Disease Control and Prevention’s (CDC) 2015 survey of Maternity Practices in Infant Nutrition and Care (mPINC). As one of 2,582 facilities that responded to the mPINC survey, representing 82% of facilities in the United States and territories that provide maternity services, «FacName»'s participation demonstrates commitment to continuous quality improvement.

Enclosed is your facility’s mPINC Benchmark Report. CDC provides this customized report to key leadership personnel at each participating facility. Your report summarizes the scientific rationale behind your facility’s mPINC score, highlights strengths and quality improvement opportunities identified through your survey responses, and illustrates how practices and policies at your facility compare with others of similar size, across «statername», and nationwide. The mPINC Total Score\* for «FacName» was «Total\_score» out of 100. Across «statername», the average score was «ST\_Score», and the national average mPINC score was 79.

CDC has created an animation about how to use your mPINC Benchmark Report which includes CDC Director, Dr. Tom Frieden’s perspective on the impact that evidence-based maternity care practices have on the health and well-being of mothers and babies. To view the animation on YouTube, enter <http://bit.ly/2bgA14F> into your web-browser or scan the QR code located at the bottom of this page. Please share your thoughts and recommendations on the animation by clicking “Likes” or “Dislikes” and adding comments. The mPINC animation can also be viewed from CDC’s mPINC web-site, [www.CDC.gov/mpinc](http://www.CDC.gov/mpinc).

We hope you will find your Benchmark Report useful in your ongoing efforts to make systemic changes to optimally support the mothers and babies in your care. Thank you again for your dedication to quality improvement in this critically important area of health care delivery. Please contact us at [mpinc@cdc.gov](mailto:mpinc@cdc.gov) with any questions you may have.

Sincerely

Ruth Petersen, MD, MPH  
Director  
Division of Nutrition, Physical Activity, and Obesity  
National Center for Chronic Disease Prevention and Health Promotion

cc: «aAdminNAME»«aComma» «aAdminTitle»  
«bRespFirst» «bRespLastName»«bComma» «bRespTitle»  
«dRecipient»  
«eRecipient»  
«fRecipient»



\*Details about the mPINC survey methodology, scoring, rationale, and history are at [www.cdc.gov/mpinc](http://www.cdc.gov/mpinc).



2015 Survey Results

# Benchmark Report

«FacName»

«FacStreet»

«FacCity», «FacST» «FacZip»

Facility ID: «FacID»

# Summary Information

«FacName»'s  
**Total Score:**



## What is the mPINC Survey?

The Maternity Practices in Infant Nutrition and Care (mPINC) Survey is a national survey of infant feeding practices in maternity care settings. Every two years, all U.S. hospitals that provide maternity services and free-standing birth centers are invited to participate.

Battelle has conducted this survey for the Centers for Disease Control and Prevention (CDC) since 2007.

## «FacName»'s Total Score Percentiles<sup>i</sup>



«FacName» reported «Numbirths» births in the past year; it is in the size category of «Births\_range» births per year.

<sup>i</sup> Your facility's percentile is the point below which the indicated percent of scores fall in each group. For example, if your National percentile is 50, then you are performing better than half of all facilities nationwide. If your State percentile is 66 or 67, you are performing better than about two-thirds of the facilities in your state. If your Similar Size percentile is 99, you are performing better than almost all other facilities nationwide with a similar number of births per year.

<sup>ii</sup> Facility size estimates are based on annual birth census as reported by the mPINC survey respondent and/or the American Hospital Association (when respondent did not provide data).

## What is in this report?

«FacName»'s results from the 2015 mPINC survey.

## What do these results mean?

**Total Score** is an overall quality score that ranges from 0 to 100. It averages the Care Dimension Subscores on 7 aspects of care.

**Care Dimension Subscores**<sup>iii</sup> are calculated for labor and delivery care; postpartum feeding of breastfed infants, breastfeeding assistance, and contact between mother and infant; discharge care; staff training; and structural/organizational aspects of care delivery at your facility.

**Percentiles** are calculated to compare your practices to all other facilities across the US, in «statename», and in your size category nationwide.

## Who participates in mPINC?

All facilities that provide intrapartum care in the United States and Territories are invited to participate in the mPINC survey.

The people most knowledgeable about the care processes and policies involved in feeding healthy infants at each facility complete the survey on behalf of their facility.

The 2015 survey response rate was 82%.

## Maternity Care Practices and Infant Feeding

A group of specific interventions has been identified that, when implemented together as a consistent system of care,<sup>1-3</sup> results in better breastfeeding outcomes.<sup>4-8</sup> Inpatient and ambulatory intrapartum care strategies describe how infant feeding care is delivered across the perinatal period. These strategies are designed to reduce the incidence of events and experiences that undermine mothers' breastfeeding intentions and decisions.

The key components of this care system were identified using the best available science and evidence. Like other clinical care models, this evidence spans a wide range, from results of randomized trials to expert opinion, producing a set of connected best practices that make up a facility's infant feeding care system.

<sup>iii</sup> Care Dimension Subscores are calculated as a simple average of the individual item scores within each domain. Subscores are not calculated when less than half of items in that domain received a score.

## Best Practices in Infant Feeding Care

The following key clinical care processes, policies, and staffing expectations are appropriate for all perinatal patients, unless medically contraindicated:

### I. Labor and delivery care

Upon delivery,<sup>iv</sup> the newborn is placed skin-to-skin with the mother, allowing uninterrupted time for breastfeeding.

### II. Postpartum care:

#### a. Feeding of breastfed infants

The breastfeeding infant is only offered pacifiers and supplements (infant formula, water, and glucose water) when medically indicated.

#### b. Breastfeeding assistance

Assistance is offered to the breastfeeding mother and infant using standards for supportive patient education and assessment.

#### c. Contact between mother and infant

The infant is enabled by staff to stay with the mother 24 hours per day, without unnecessary separation or restrictions.

### III. Facility discharge care

The breastfeeding mother and infant are assured ambulatory breastfeeding care, and patient discharge gifts contain no infant formula marketing samples.

### IV. Staff training

All staff with primary responsibility for care of the breastfeeding mother and infant receive appropriate breastfeeding skills training and assessment.

### V. Structural and organizational aspects of care delivery

Best practices and policies are implemented for staffing, care process, and communication expectations; policies are supportive of breastfeeding employees; and are free from financial conflict of interest.

<sup>iv</sup> Immediate skin-to-skin contact and breastfeeding opportunities are possible and beneficial in both vaginal and Cesarean deliveries. These practices should be initiated within one hour of vaginal birth and within two hours of Cesarean birth.



Subscore Percentiles compare your facility's subscore to:

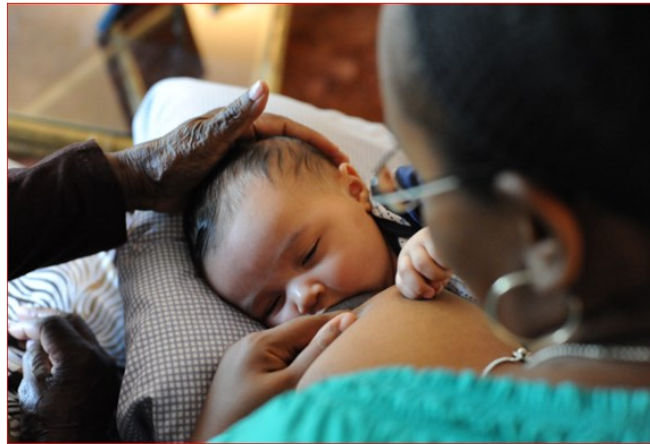
United States «LDnatlbar» «LDnatODDbar» «LabDel\_natl»  
 «statename» «LDstatebar» «LDstateODDbar» «LabDel\_state»  
 Similar Size Facilities «LDsizebar» «LDsizeODDbar» «LabDel\_size»

0 100

## I. Labor and Delivery Care

Subscore: «La»

Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Initial skin-to-skin contact	Skin-to-skin contact improves infant ability to establish breastfeeding. <sup>9</sup>	This measure reports how many patients experience mother-infant skin-to-skin contact for at least 30 minutes within 1 hour of uncomplicated vaginal birth.	Most	«a05response»	«a05score»
		This measure reports how many patients experience mother-infant skin-to-skin contact for at least 30 minutes within 2 hours of uncomplicated Cesarean birth.	Most	«a11response»	«a11score»
Initial breastfeeding opportunity	Early initiation of breastfeeding increases overall breastfeeding duration and reduces a mother's risk of delayed onset of milk production. <sup>10</sup>	This measure reports what percent of patients have the opportunity to breastfeed within 1 hour of uncomplicated vaginal birth.	≥90	«a06response»	«a06score»
		This measure reports what percent of patients have the opportunity to breastfeed within 2 hours of uncomplicated Cesarean birth.	≥90	«a12response»	«a12score»
Routine procedures performed skin-to-skin	Performing routine newborn procedures and assessments skin-to-skin increases infant stability, is safe for mother and infant, <sup>11</sup> and improves breastfeeding outcomes by reducing unnecessary separation of mother and infant. <sup>12</sup>	This measure reports how often patients have routine infant procedures performed while mother and infant are skin-to-skin.	Almost always	«a04response»	«a04score»



## II. Postpartum Care— a. Feeding of Breastfed Infants

Subscore: «Fe»

Subscore Percentiles compare your facility's subscore to:

United States «Feednatlbar» «FeednatODDbar» «FeedBF\_natl»  
 «statename» «Feedstatebar» «FeedstateODDbar» «FeedBF\_state»  
 Similar Size Facilities «Feedsizebar» «FeedsizeODDbar» «FeedBF\_size»

0 100

Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Initial feeding received after birth	Neonatal immune system development depends on transfer of specific antibodies through colostrum and is impaired by prior introduction of non-breast milk feeds. <sup>13,14</sup>	This measure reports what percent of breastfeeding infants receive breast milk as their first feeding after uncomplicated vaginal birth.	≥90	«a07response»	«a07score»
		This measure reports what percent of breastfeeding infants receive breast milk as their first feeding after uncomplicated Cesarean birth.	≥90	«a13response»	«a13score»
Supplementary feedings	The AAP and ACOG <i>Guidelines for Perinatal Care</i> <sup>5</sup> and Academy for Breastfeeding Medicine guidelines for supplementing feedings in healthy <sup>16</sup> and hypoglycemic <sup>17</sup> neonates all recommend against routine supplementation with formula, glucose water, or water.	This measure reports what percent of breastfeeding infants receive non-breast milk feedings.	<10	«a20response»	«a20score»
		This measure reports whether breastfeeding infants receive glucose water and/or water.	No	«a21response»	«a21score»

## II. Postpartum Care— b. Breastfeeding Assistance

Subscore: **«BF»**

Subscore Percentiles compare your facility's subscore to:



Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Documentation of feeding decision	Standard documentation of infant feeding decisions is important in order to adequately support maternal choice. <sup>18</sup>	This measure reports how often infant feeding decisions are documented in medical records.	Almost always	«a03response»	«a03score»
Breastfeeding advice and counseling	The AAP recommends pediatricians provide parents with complete, current information on the benefits and methods of breastfeeding to ensure that the feeding decision is a fully informed one. <sup>19</sup> Patient education is important in order to establish breastfeeding. <sup>20,21</sup>	This measure reports how many patients who are breastfeeding, or intend to breastfeed, are provided advice and instructions about breastfeeding.	Most	«a15response»	«a15score»
	Effective breastfeeding relies on feeding in direct response to specific infant cues rather than scheduled frequency or duration of feedings. <sup>22</sup>	This measure reports how many patients are taught to recognize and respond to infants' cues instead of feeding on a set schedule.	Most	«a16response»	«a16score»
		This measure reports how often breastfeeding patients receive instructions to limit suckling at the breast to a specific length of time.	Rarely	«a17response»	«a17score»
Assessment and observation of breastfeeding sessions	The AAP recommends formal evaluation of breastfeeding performance by trained observers during the first 24-48 hours of life. <sup>19</sup>	This measure reports how many patients received a directly observed breastfeeding assessment by facility staff.	Most	«a18response»	«a18score»
	Standardized breastfeeding assessment tools improve comparability and validity of findings. <sup>23-25</sup>	This measure reports whether breastfeeding is assessed using a standardized or adapted assessment tool.	Yes	«a19response»	«a19score»
Pacifier use	In-hospital pacifier use reduces duration of exclusive breastfeeding. <sup>26</sup>	This measure reports how many breastfeeding patients are given pacifiers by facility staff.	Few	«a24response»	«a24score»

## II. Postpartum Care— c. Contact Between Mother and Infant

Subscore: **«Co»**

Subscore Percentiles compare your facility's subscore to:



Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Separation of mother and newborn during transition to receiving units	Separation during transition to postpartum care is unnecessary for stable patients. Mother-infant contact is important during this time to establish breastfeeding, maintain infant weight, and improve regulation of infants' neurologic states. <sup>22</sup>	This measure reports how many minutes mother-infant pairs are separated after uncomplicated vaginal births during the transition from labor and delivery care to their receiving patient care units.	No separation	«a08response»	«a08score»
Patient rooming-in	Rooming-in of mother-infant pairs increases infants' opportunities to learn to breastfeed <sup>28</sup> without affecting duration or quality of maternal sleep. <sup>29</sup>	This measure reports how many hours breastfeeding mother-infant pairs are separated at night.	No separation	«a28response»	«a28score»
		This measure reports what percent of mother-infant pairs room together ≥23 hrs per day.	≥90	«a31response»	«a31score»
Instances of mother infant separation	Understanding the reasons mother-infant pairs are separated <sup>30</sup> helps identify opportunities to reduce unnecessary separations. Bringing the infant to the mother to breastfeed reduces chances the infant will receive supplemental feeds. <sup>31,32</sup>	This measure reports the number of reasons that infant patients are removed from mothers' rooms.	0	«a30response»	«a30score»
		This measure reports how many patients who are not rooming-in receive the infant from the nursery for breastfeeding at night.	Most	«a29response»	«a29score»

III. Facility Discharge Care

Subscore: «Dx»

Subscore Percentiles compare your facility's subscore to:

United States	«Dxnat1bar»«DxnatODDbar» «Dx_nat1»
«statename»	«Dxstatebar»«DxstateODDbar» «DX_state»
Similar Size Facilities	«Dxsizebar»«DxsizeODDbar» «Dx_size»
	0 100

Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Assurance of ambulatory breastfeeding support	The AAP clinical practice guidelines recommend examination of all infants by a qualified health care professional within 48 hours of hospital discharge to assess breastfeeding. <sup>33</sup> Ensuring post discharge ambulatory support improves breastfeeding outcomes. <sup>34-35</sup>	This measure reports how many modes of ambulatory breastfeeding support are offered: Physical Contact—Home/hospital visit; Active Reaching Out—Phone call to patient; Referral—Providing information about: Available phone numbers, support groups, lactation consultant/specialist, WIC, outpatient clinics.	All 3 modes	«a33resp onse»	«a33score»
Distribution of "discharge packs" containing infant formula	The AAP and ACOG recommend against distributing infant formula "discharge packs" <sup>15,36</sup> because it reduces exclusive breastfeeding rates and implies health care professional endorsement of specific commercial items. <sup>37-39</sup>	This measure reports whether breastfeeding patients are given "discharge packs" containing product marketing infant formula samples.	No	«a32resp onse»	«a32score»



IV. Staff Training

Subscore: «Tra»

Subscore Percentiles compare your facility's subscore to:

United States	«Trainnat1bar»«TrainstateODDbar» «Train_nat1»
«statename»	«Trainstatebar»«TrainstateODDbar» «Train_state»
Similar Size Facilities	«Trainsizebar»«TrainsizeODDbar» «Train_size»
	0 100

Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Preparation of new staff		This measure reports how many hours of breastfeeding education new nurses and other birth attendants* receive.	≥18	«b01resp onse»	«b01score»
Continuing education	Staff training ensures standard capacity to provide evidence-based care, learn about new information, and maintain patient support skills. <sup>39-42</sup> Staff training improves patient breastfeeding outcomes facility-wide. <sup>43,44</sup>	This measure reports how many hours of breastfeeding education current nurses and other birth attendants* receive.	≥5	«b05resp onse»	«b05score»
		This measure reports how many nurses and other birth attendants* received any breastfeeding education in the past year.	Most	«b04resp onse»	«b04score»
Competency assessment	Like other critical nursing competencies, regular assessment of competency in breastfeeding management and support improves delivery of care. <sup>45-47</sup>	This measure reports how often nurses and other birth attendants* are assessed for competency in breastfeeding management and support.	At least once a year	«b03resp onse»	«b03score»

\* In free-standing birth centers, these questions were asked among "Birth attendants" to accommodate the range of attendants to births in these facilities.

Subscore Percentiles compare your facility's subscore to:

United States	«Structnatl»
«statername»	«Structstate»
Similar Size Facilities	«Structsize»
0	100

## V. Structural & Organizational Aspects of Care Delivery

Subscore: «Str



Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Breastfeeding policy	The AAP recommends inclusion of specific elements in facility breastfeeding policies. <sup>15</sup> The Academy of Breastfeeding Medicine's clinical protocol lists components of a model breastfeeding policy. <sup>16</sup>	This measure reports the number of model breastfeeding policy elements in your facility's breastfeeding policy.	10	«b11response»	«b11score»
Communication of breastfeeding policy	Effective intra-professional communication increases the likelihood that a facility's breastfeeding policy will be implemented appropriately. <sup>48,49</sup>	This measure reports the modes used to inform staff about breastfeeding policies: In person—In-service training, new staff orientation, new staff training, staff meeting; Printed/online materials—Policy posted, newsletter.	Both modes	«b12response»	«b12score»
Infant feeding documentation policy	Standardized documentation of patient decisions allows for valid internal assessment, monitoring and improvement of quality of care, and improves staff collaboration and support of patients' decisions. <sup>50</sup>	This measure reports your facility's policy for documentation of patient infant feeding plans and practices.	Any point during or post-stay	«c06response»	«c06score»
Employee breastfeeding support	The AWHONN recommends medical facilities support all lactating employees by providing appropriate time and facilities to express and store milk during the work day. <sup>51</sup> The US Breastfeeding Committee recommends specific workplace supports. <sup>52</sup>	This measure reports how many supports are provided to lactating staff: Critical supports—Room to express milk, electric breast pump for staff use, permission to express milk on breaks; Additional supports—On-site child care, breastfeeding support group for staff, access to lactation consultant/specialist, paid maternity leave other than accrued leave.	3 critical	«b13response»	«b13score»
Facility receipt of free infant formula	The ADA guidelines for mandatory elements of infant formula HACCP plans <sup>53</sup> apply to purchased and free infant formula. The IOM recognizes the inherent conflict of interest this kind of financial support introduces. <sup>54</sup>	This measure reports whether your facility receives infant formula free of charge from manufacturers.	No	«a25response»	«a25score»
Prenatal breastfeeding instruction	Patient education about breastfeeding improves breastfeeding rates. <sup>20</sup>	This measure reports whether breastfeeding is a component of prenatal patient education opportunities.	Yes	«a01response»	«a01score»
Coordination of lactation care	A designated Lactation Coordinator demonstrates consideration of lactation support as an essential and necessary function of intrapartum care. <sup>55</sup>	This measure reports whether your facility has a designated person who oversees lactation care within the facility.	Yes	«b08response»	«b08score»

### How can you use this report?

This report was sent to the key leadership personnel who determine the clinical care processes, policies, and staffing expectations at «FacName».

Consider using this report to bring personnel together to examine problematic subscores, choose and launch improvement activities, and celebrate successes.

### Example opportunities to improve infant nutrition care:

- Reduce delays in first contact and breastfeeding opportunities.
- Eliminate unnecessary supplementation.
- Improve patient education and assistance.
- Eliminate unnecessary separations between mothers and infants.
- Ensure compliance with AAP clinical practice recommendations.
- Facilitate staff training on breastfeeding management and support.
- Improve your facility's policies related to breastfeeding.



- (1) Perez-Escamilla R, Segura-Millan S, Pollitt E, Dewey KG. Effect of the maternity ward system on the lactation success of low-income urban Mexican women. *Early Hum Dev* 1992; 31(1):25-40.
- (2) Kersting M, Dulon M. Assessment of breast-feeding promotion in hospitals and follow-up survey of mother-infant pairs in Germany: the SuSe Study. *Public Health Nutr* 2002; 5(4):547-552.
- (3) Murray EK, Ricketts S, Dellaport J. Hospital practices that increase breastfeeding duration: results from a population-based study. *Birth* 2007; 34(3):202-211.
- (4) Blomquist HK, Jonsbo F, Serenius F, Persson LA. Supplementary feeding in the maternity ward shortens the duration of breast feeding. *Acta Paediatr* 1994; 83(11):1122-1126.
- (5) Coutinho SB, de Lira PI, de Carvalho LM, Ashworth A. Comparison of the effect of two systems for the promotion of exclusive breastfeeding. *Lancet* 2005; 366(9491):1094-1100.
- (6) DiGirolamo AM, Grummer-Strawn LM, Fein SB. Effect of maternity-care practices on breastfeeding. *Pediatrics* 2008; 122(Suppl 2):S43-S49.
- (7) Illingworth RS, Ston DG, Jowett GH, Scott JF. Self-demand feeding in a maternity unit. *Lancet* 1952; 1(14):683-687.
- (8) Vittoz JP, Labarere J, Castell M, Durand M, Pons JC. Effect of a training program for maternity ward professionals on duration of breastfeeding. *Birth* 2004; 31(4):302-307.
- (9) Anderson GC, Moore E, Hepworth J, Bergman N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev* 2003; (2):CD003519.
- (10) Dewey KG, Nommsen-Rivers LA, Heinig MJ, Cohen RJ. Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excess neonatal weight loss. *Pediatrics* 2003; 112(3 Pt 1):607-619.
- (11) Bystrova K, Matthiesen AS, Vorontsov I, Widstrom AM, Ransjo-Arvidson AB, Uvnas-Moberg K. Maternal axillar and breast temperature after giving birth: effects of delivery ward practices and relation to infant temperature. *Birth* 2007; 34(4):291-300.
- (12) Awi DD, Alikor EA. Barriers to timely initiation of breastfeeding among mothers of healthy full-term babies who deliver at the University of Port Harcourt Teaching Hospital. *Niger J Clin Pract* 2006; 9(1):57-64.
- (13) Brandtzaeg P. The secretory immunoglobulin system: regulation and biological significance, focusing on human mammary glands. In: David M, Isaacs C, Hanson L, editors. *Integrating Population Outcomes, Biological Mechanisms and Research Methods in the Study of Human Milk and Lactation*. New York: Kluwer Academic/Plenum Publishers, 2002: 1-16.
- (14) Adlerberth I, Hanson L. Ontogeny of the intestinal flora. In: Sanderson I, Walker W, editors. *Development of the Gastrointestinal Tract*. Hamilton, Ontario: BC Dexter Inc., 1999: 279-292.
- (15) American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Care of the neonate. In: Lockwood CJ, Lemons JA, eds. *Guidelines for Perinatal Care*. 7th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2012.
- (16) The Academy of Breastfeeding Medicine Protocol Committee. Model breastfeeding policy (Revision 2010). *Breastfeeding Medicine* 2010; 5(4):173-177.
- (17) The Academy of Breastfeeding Medicine Protocol Committee. Guidelines for blood glucose monitoring and treatment of hypoglycemia in term and late-preterm neonates, revised 2014. *Breastfeeding Medicine* 2014; 9(4):173-179.
- (18) Lee TT. Nursing diagnoses: factors affecting their use in charting standardized care plans. *J Clin Nurs* 2005; 14(5):640-647.
- (19) American Academy of Pediatrics Section on Breastfeeding. Policy Statement: Breastfeeding and the use of human milk. *Pediatrics*. 2012 Mar;129(3):e827-e841.
- (20) US Preventive Services Task Force. Behavioral interventions to promote breastfeeding: Recommendations and rationale. *Annals of Family Medicine* 2003; 1(2):79-80.
- (21) Kronborg H, Vaeth M, Olsen J, Iversen L, Harder I. Effect of early postnatal breastfeeding support: a cluster-randomized community based trial. *Acta Paediatr* 2007; 96(7):1064-1070.
- (22) Riordan J. *Breastfeeding and Human Lactation*. Third ed. Sudbury, MA: Jones and Bartlett, 2005.
- (23) Kumar SP, Mooney R, Wieser LJ, Havstad S. The LATCH scoring system and prediction of breastfeeding duration. *J Hum Lact* 2006; 22(4):391-397.
- (24) Cakmak H, Kuguoglu S. Comparison of the breastfeeding patterns of mothers who delivered their babies per vagina and via cesarean section: an observational study using the LATCH breastfeeding charting system. *Int J Nurs Stud* 2007; 44(7):1128-1137.
- (25) Benson S. What is normal? A study of normal breastfeeding dyads during the first sixty hours of life. *Breastfeed Rev* 2001; 9(1):27-32.
- (26) Howard CR, Howard FM, Lanphear B et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics* 2003; 111(3):511-518.
- (27) Bystrova K, Widstrom AM, Matthiesen AS et al. Early lactation performance in primiparous and multiparous women in relation to different maternity home practices. A randomised trial in St. Petersburg. *Int Breastfeed J* 2007; 2:9.
- (28) Buranasin B. The effects of rooming-in on the success of breastfeeding and the decline in abandonment of children. *Asia Pac J Public Health* 1991; 5(3):217-220.
- (29) Keefe MR. The impact of infant rooming-in on maternal sleep at night. *J Obstet Gynecol Neonatal Nurs* 1988; 17(2):122-126.
- (30) Svensson K, Matthiesen AS, Widstrom AM. Night rooming-in: who decides? An example of staff influence on mother's attitude. *Birth* 2005; 32(2):99-106.
- (31) Ball HL, Ward-Platt MP, Heslop E, Leech SJ, Brown KA. Randomised trial of infant sleep location on the postnatal ward. *Arch Dis Child* 2006; 91(12):1005-1010.
- (32) Lindenberg CS, Cabrera AR, Jimenez V. The effect of early post-partum mother-infant contact and breast-feeding promotion on the incidence and continuation of breast-feeding. *Int J Nurs Stud* 1990; 27(3):179-186.
- (33) Maisels MJ, Bhutani VK, Bogen D, Newman TB, Stark AR, Watchko JF. Hyperbilirubinemia in the newborn infant > or = 35 weeks' gestation: an update with clarifications. *Pediatrics* 2009; 124(4):1193-1198.
- (34) Ingram J, Rosser J, Jackson D. Breastfeeding peer supporters and a community support group: evaluating their effectiveness. *Matern Child Nutr* 2005; 1(2):111-118.
- (35) Chapman DJ, Damio G, Perez-Escamilla R. Differential response to breastfeeding peer counseling within a low-income, predominantly Latina population. *J Hum Lact* 2004; 20(4):389-396.
- (36) Committee on Healthcare for Underserved Women, Committee on Obstetric Practice. ACOG Committee Opinion No. 361: Breastfeeding: Maternal and Infant Aspects. *Obstet Gynecol* 2007 109: 479-480. (Reaffirmed 2013)
- (37) Bliss MC, Wilkie J, Acredolo C, Berman S, Tebb KP. The effect of discharge pack formula and breast pumps on breastfeeding duration and choice of infant feeding method. *Birth* 1997; 24(2):90-97.
- (38) Snell BJ, Krantz M, Keeton R, Delgado K, Peckham C. The association of formula samples given at hospital discharge with the early duration of breastfeeding. *J Hum Lact* 1992; 8(2):67-72.
- (39) Taveras EM, Li R, Grummer-Strawn L et al. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. *Pediatrics* 2004; 113(4):e283-e290.
- (40) Freed GL, Clark SJ, Sorenson J, Lohr JA, Cefalo R, Curtis P. National assessment of physicians' breast-feeding knowledge, attitudes, training, and experience. *JAMA* 1995; 273(6):472-476.
- (41) Dykes F. The education of health practitioners supporting breastfeeding women: time for critical reflection. *Matern Child Nutr* 2006; 2(4):204-216.
- (42) Lu MC, Lange L, Slusser W, Hamilton J, Halfon N. Provider encouragement of breast-feeding: evidence from a national survey. *Obstet Gynecol* 2001; 97(2):290-295.
- (43) Cattaneo A, Yngve A, Koletzko B, Guzman LR. Protection, promotion and support of breast-feeding in Europe: current situation. *Public Health Nutr* 2005; 8(1):39-46.
- (44) Cattaneo A, Buzzetti R. Effect on rates of breast feeding training for the baby friendly hospital initiative. *BMJ* 2001; 323(7325):1358-1362.
- (45) O'Hearne RM. A review of methods to assess competency. *J Nurses Staff Dev* 2006; 22(5):241-245.
- (46) Whelan L. Competency assessment of nursing staff. *Orthop Nurs* 2006; 25(3):198-202.
- (47) Arcand LL, Neumann JA. Nursing competency assessment across the continuum of care. *J Contin Educ Nurs* 2005; 36(6):247-254.
- (48) Gifford WA, Davies B, Edwards N, Graham ID. Leadership strategies to influence the use of clinical practice guidelines. *Nurs Leadersh (Tor Ont)* 2006; 19(4):72-88.
- (49) Reeves S, Lewin S. Interprofessional collaboration in the hospital: strategies and meanings. *J Health Serv Res Policy* 2004; 9(4):218-225.
- (50) Cummings GG, Estabrooks CA, Midodzi WK, Wallin L, Hayduk L. Influence of organizational characteristics and context on research utilization. *Nurs Res* 2007; 56(4 Suppl):S24-S39.
- (51) Association of Women's Health, Obstetric and Neonatal Nurses. AWHONN position statement: Breastfeeding. *JOGNN* 2015; 44:145-150.
- (52) United States Breastfeeding Committee. Workplace accommodations to support and protect breastfeeding. <http://www.usbreastfeeding.org/p/cm/ld/fid=196> Retrieved July 25, 2016.
- (53) Pediatric Nutrition Practice Group. *Infant Feedings: Guidelines for Preparation of Human Milk and Formula in Health Care Facilities*, 2nd Ed. Chicago: U.S. The American Dietetic Association, 2011.
- (54) Institute of Medicine (US) Committee on Conflict of Interest in Medical Research, Education, and Practice. *Conflict of Interest in Medical Research, Education, and Practice*. Washington (DC): National Academies Press, 2009.
- (55) Mannel R, Mannel RS. Staffing for hospital lactation programs: recommendations from a tertiary care teaching hospital. *J Hum Lact* 2006; 22(4):409-417.

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Division of Nutrition, Physical Activity, and Obesity  
National Center for Chronic Disease Prevention  
and Health Promotion  
Centers for Disease Control and Prevention  
Atlanta, GA USA

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