

# **RIGHT** *from the* **START**

*How Texas Hospitals Can Improve Quality Through Breastfeeding Policies*







## **BREASTFEEDING: GOOD FOR BABIES, GOOD FOR BUSINESS**

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The long-term benefits of breastfeeding for babies and mothers are undisputed. Breastfeeding is linked to decreased risk of illness and mortality for infants. It is also associated with reduced risk for maternal illness.

It is well documented that maternity practices in infant nutrition and care have a significant impact on a mother's initiation and continuation of breastfeeding.<sup>1-4</sup> That means the care your facility provides to support breastfeeding can have a long-lasting effect on the health of babies born there as well as enhance the health and care satisfaction of your patients.<sup>5</sup>

As the number of women who intend to breastfeed rises, families are seeking birthing facilities that support and encourage their efforts to breastfeed. Every delivery is a chance to start a long-term relationship with the birth family. Providing breastfeeding support can deliver long-term benefits to your facility as well.



## **SUPPORT FOR BREASTFEEDING IS A NATIONAL PRIORITY**

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Perinatal support of breastfeeding is the focus of several national initiatives:

### ***Surgeon General's Call to Action to Support Breastfeeding***

The U.S. Surgeon General encourages the health-care sector to help make breastfeeding easier for moms, beginning with ensuring that maternity care practices are fully supportive of breastfeeding.

### ***Healthy People 2020***

The United States Department of Health and Human Services' Healthy People 2020 establishes breastfeeding as a national public health priority. National objectives aim to increase rates of breastfeeding initiation, duration, and exclusivity; increase the proportion of employers who have worksite lactation support programs; reduce the proportion of breastfed newborns receiving formula supplementation within the first two days of life; and increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers.

## ***Joint Commission***

The Joint Commission encourages families to make informed decisions about infant feeding. The Commission's *Speak Up*™ education campaign empowers families to request specific, evidence-based practices that improve breastfeeding success. Birth facilities are asked to report exclusive breastmilk feeding rates at discharge as one of five evidence-based measures included in the Joint Commission's Perinatal Care Core Measure Set.<sup>6</sup>

## ***National Quality Forum***

The National Quality Forum (NQF) was created to develop and implement a national strategy for health-care quality measurement and reporting to improve national health-care policy. The NQF National Consensus Standards for Perinatal Care include the quality care performance measure of exclusive breastfeeding throughout the hospital stay and at discharge for all live births not discharged from the NICU.

## ***CDC Maternity Practices in Infant Nutrition and Care (mPINC) Survey***

To support achievement of our nation's Healthy People 2020 objectives, the Centers for Disease Control and Prevention (CDC) administers the biennial mPINC survey to all U.S. hospitals and birth centers that provide maternity care. Participating facilities receive individualized benchmark reports detailing the facility's quality-practice rank scores for performance measures in seven maternity-care practice domains. Rationale, explanations, and suggested areas for improvement are provided to support facilities in establishing evidence-based infant feeding and care practices.

## ***Baby-Friendly USA, Inc.***

The Baby-Friendly Hospital Initiative (BFHI) is a global program sponsored by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) to encourage and recognize hospitals and birthing centers that offer an optimal level of care for infant feeding. Baby-Friendly USA is the national authority for the BFHI in the United States. It envisions an American culture that values the enduring benefits of breastfeeding and human milk for mothers, babies, and society. In order to meet Healthy People 2020 objectives, it is necessary to increase the number of live births that occur in facilities that fully implement the *Ten Steps to Successful Breastfeeding*—the maternity practice standards that form the basis of the BFHI.





## MATERNITY CARE POLICIES SHAPE BREASTFEEDING OUTCOMES

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Breastfeeding rates in Texas lag behind national averages, and many women report they are unable to meet their breastfeeding goals. Whether a woman chooses to start breastfeeding and how long she continues is closely tied to the patient care practices she and her infant experience during her newborn's first minutes, hours, and days.

Practices that delay or interrupt the first breastfeed, that cause separation of babies and mothers, or that result in formula supplementation of breastfed babies make it difficult for mothers and babies to successfully breastfeed. When hospitals support mothers to remain in close contact with their infants and to feed their babies only breastmilk, they help ensure successful breastfeeding from the start, with continued exclusive breastfeeding once they go home.

A multi-center, randomized control study found that babies born in hospitals whose policies promoted exclusive breastfeeding were significantly more likely to be exclusively breastfed at six months.<sup>7</sup> Other studies confirm that evidence-based maternity practices, including “Baby-Friendly” hospital standards, improve mothers’ chances of achieving their breastfeeding goals (see Figure 1).<sup>1,4</sup>

Although breastfeeding is natural for mother and baby, it also requires a set of skills that need to be learned. During this critical period, birthing facilities are best positioned to foster skill development and nurture behaviors to support the successful establishment of lactation.

*“The Texas Ten Step designation has helped to establish our reputation within the community, among our employees, and other larger medical facilities.”*

—DIANA FORRESTER, RNC, IBCLC  
BAYSHORE MEDICAL CENTER • PASADENA, TEXAS

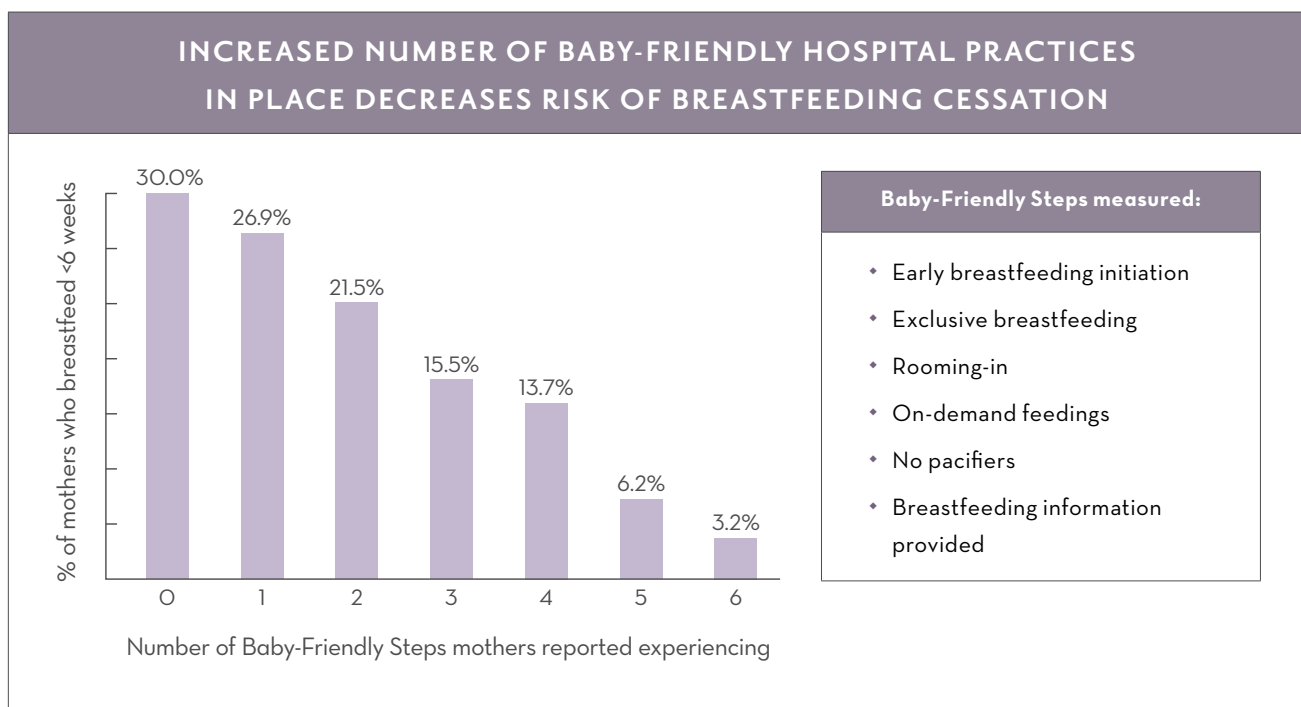


Figure 1: Among women who initiated breastfeeding and intended to breastfeed for >2 months, percentage who stopped breastfeeding before 6 weeks according to the number of the “Baby-Friendly” Steps that they reported experiencing.<sup>1</sup>



### ***Established Bundle of Best Practices—The Ten Steps to Successful Breastfeeding***

1. Have a written breastfeeding policy that is routinely communicated to all health-care staff.
2. Train all health-care staff in the skills necessary for implementing this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within an hour of birth. Place babies in skin-to-skin contact with their mothers for at least an hour immediately following birth. Encourage mothers to recognize when their babies are ready to breastfeed and offer help if needed.
5. Show mothers how to breastfeed and how to maintain lactation, even if they should be separated from their infants.
6. Give 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. Teach mothers cue-based feeding, regardless of feeding method.
9. Give no artificial nipples or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them upon discharge.

The *Ten Steps to Successful Breastfeeding* are endorsed by the American Academy of Pediatrics and the American Academy of Family Physicians.



*“Creating an environment supportive of breastfeeding isn’t nearly as difficult as you might think. The cost didn’t turn out to be a barrier at all.”*

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—DEBORAH A. PAGANELLI

FELLOW OF THE AMERICAN COLLEGE OF HEALTHCARE EXECUTIVES

TEXAS HEALTH HARRIS METHODIST HOSPITAL HURST-EULESS-BEDFORD • A BABY-FRIENDLY HOSPITAL

## **CDC mPINC SURVEYS SHOW TEXAS MATERNITY FACILITIES NEED IMPROVEMENT**

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The CDC’s mPINC survey scores U.S. birth facilities for seven maternity care practice dimensions. Survey results indicate that most birth facilities fall short in providing evidence-based maternity care that is fully supportive of breastfeeding. Texas’s 2009 composite quality practice score was 62 out of 100, placing it in the third quartile of all states.

Figure 2 shows how Texas performed compared to the national average and to the highest ranked state, according to each of the seven subscales. The survey’s performance results indicate the average facility score by state. Texas ranks lower than the national average in all measures except staff training.

State and national mPINC data are available from [www.cdc.gov/breastfeeding/data/mpinc/results.htm](http://www.cdc.gov/breastfeeding/data/mpinc/results.htm). Find information about the survey, benchmark reports, scoring methods, and complete references at [www.cdc.gov/mpinc](http://www.cdc.gov/mpinc).

The CDC recommends that Texas birth facilities integrate maternity care into related hospital-wide Quality Improvement efforts. In addition, the CDC encourages statewide utilization of the Joint Commission’s Perinatal Care Core Measure Set, which includes exclusive breastfeeding at discharge, in hospital data collection.

## 2009 mPINC SURVEY—HOW TEXAS COMPARES

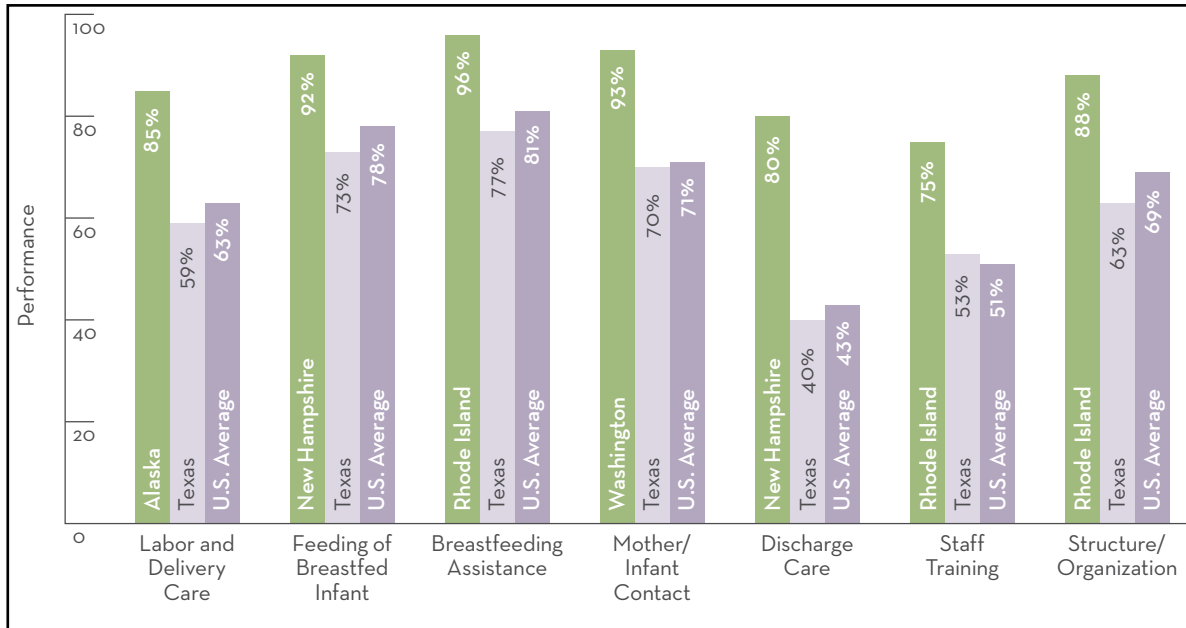


Figure 2: 2009 CDC National Survey of Maternity Practices in Infant Nutrition and Care (mPINC).<sup>2</sup>

The green bars represent the state with the highest score in each category.

Was your hospital one of the nearly 200 Texas birthing facilities that participated in the 2007, 2009, and 2011 CDC mPINC surveys? If so, you should have received benchmark reports from the CDC summarizing your hospital's self-appraised performance in seven dimensions of maternity care related to breastfeeding support. These confidential reports were mailed to the following staff:

- Survey Respondent
- Hospital Administrator/CEO
- Quality Improvement Director
- Obstetrics Medical Director
- Pediatrics Medical Director
- Mother-Baby Nurse Manager



## THE TEXAS TEN STEP PROGRAM: YOUR PATH TO IMPROVING BREASTFEEDING SUPPORT

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All across Texas, birthing facilities are challenged in their efforts to improve infant feeding outcomes. They are tasked with assisting a diverse patient population to navigate barriers to successful breastfeeding, especially those encountered in the early postpartum days. So where do you start? The *Ten Steps to Successful Breastfeeding* give all birthing facilities access to the same best practices. Outlined by WHO/UNICEF, the *Ten Steps* provide evidence-based guidance for improving breastfeeding outcomes.

The Texas Hospital Association and the Texas Department of State Health Services developed the Texas Ten Step Program to provide resources and a framework to help birthing facilities improve breastfeeding outcomes through incremental adoption of evidence-based practices. The Texas Ten Step Program recognizes facilities implementing policies aligned with the *Ten Steps to Successful Breastfeeding* and encourages continued progress toward pursuit of Baby-Friendly Hospital designation.

The Texas Ten Step Program is voluntary and self-reporting. There are no external audits or site visits. The program is endorsed by the Texas Medical Association and the Texas Hospital Association.

As of August 2012, 89 Texas facilities participate in the Texas Ten Step Program. Of these, 7 have become Baby-Friendly Hospitals and an additional 25 Texas facilities have demonstrated their intent to pursue Baby-Friendly designation.



## IMPROVED QUALITY = IMPROVED COMPETITIVENESS

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Implementing the *Ten Steps to Successful Breastfeeding* is a cost-neutral way to greatly increase the quality of maternity care in your facility.<sup>8</sup>

Implementation of the *Ten Steps* addresses the six Aims of Improvement first laid out in the Institute of Medicine's groundbreaking 2001 report, *Crossing the Quality Chasm: A New Health System for the 21st Century*.<sup>9</sup>

### *Aims of Improvement*

**Safety:** Facilities can improve the safety and stability of all neonates regardless of chosen infant feeding method. Investing time and energy in preparation and implementation of best practices for infant nutrition and care will result in improved infant health outcomes. Evidence-informed support of infant feeding protects your facility against avoidable risks such as nosocomial infection, hypothermia, hypoglycemia, jaundice, and hypernatremic dehydration. The *Ten Steps* promote optimal nutritional and developmental outcomes for the newborn as well as optimal health outcomes for babies and their mothers.

**Effectiveness:** When old practices are replaced with the *Ten Steps*, facilities are well positioned to improve their performance in measures such as those assessed by the CDC's Maternity Practices in Infant Nutrition and Care survey and the Joint Commission's Perinatal Care Core Measure Set. Facilities recognized for their integration of best practices have an advantage in recruitment and retention of qualified health-care professionals and in cultivating satisfaction and lifelong loyalty in their patient population.

*“We proudly display our Texas Ten Step designation throughout Women’s and Children’s Service. Parents are delighted knowing their baby will receive excellent breastfeeding care during their hospital stay.”*

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—CORAL DICKS, RN

MEMORIAL HERMANN • MEMORIAL CITY MEDICAL CENTER • HOUSTON, TEXAS

**Patient-Centeredness:** Facilities that implement the *Ten Steps* demonstrate their commitment to place families at the center of care by promoting informed decision-making, facilitating achievement of patients’ infant feeding goals, and supporting maternal confidence and parental self-efficacy. This patient-centered approach results in higher rates of patient satisfaction.

**Timeliness:** By making a facility-wide commitment to increase staff competencies and continuity of lactation support, implementation of the *Ten Steps* results in fewer delays experienced by families that are seeking effective assistance with infant nutrition and care.

**Efficiency:** A 2009 cost analysis prepared for the Texas Department of State Health Services concluded that overall expenditures for implementing the *Ten Steps* as parts of the Baby-Friendly Hospital Initiative are effectively cost-neutral and are reduced each year.<sup>8</sup> Meanwhile, savings in space, time, supplies, capital, and improved health outcomes continue to increase.

**Equity:** Breastfeeding allows all infants access to the same quality of nutrition and immune protection, regardless of social and economic resources. Texas data demonstrate that racial/ethnic disparity gaps in infant feeding are narrowed through implementation of the *Ten Steps*.



PREVALENCE OF EXCLUSIVE BREASTMILK FEEDING  
ON DAY 2 POSTPARTUM BY MOTHER'S RACE/ETHNICITY AND  
DESIGNATION STATUS OF BIRTHING FACILITY, 2009

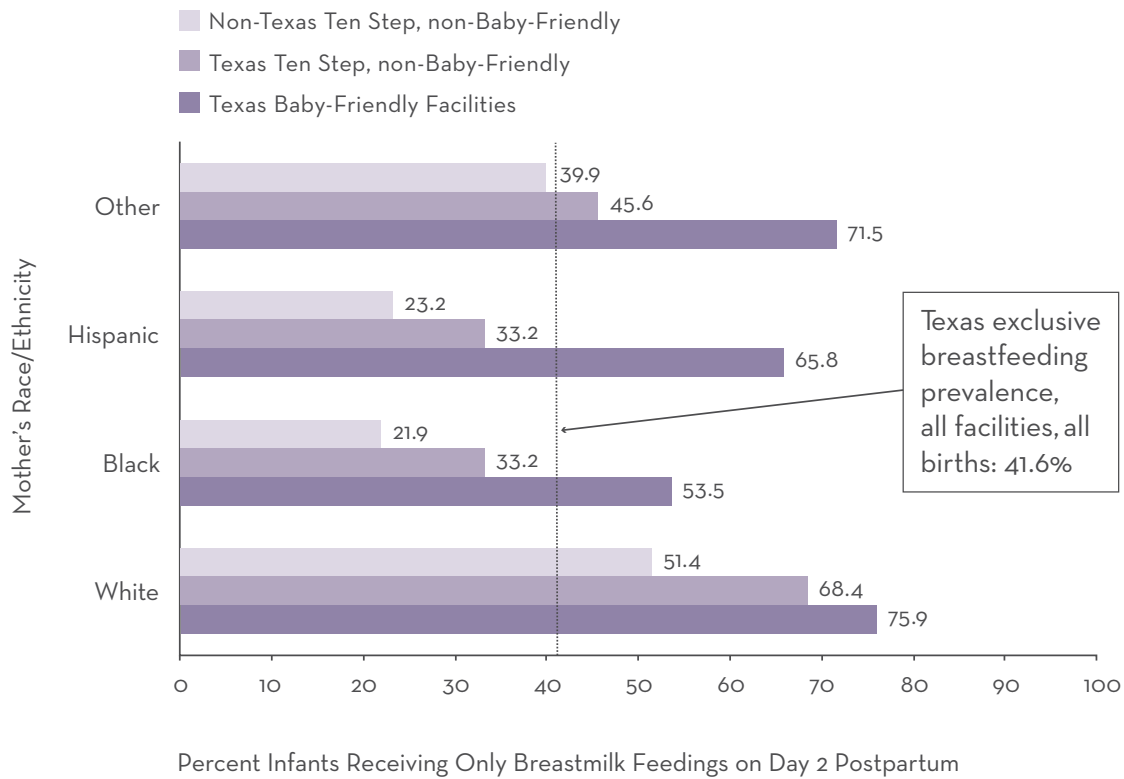


Figure 3: Texas DSHS Office of Program Decision Support.  
Texas Vital Statistics, Provisional Live Births, 2009. Newborn Screening, 2009.

In its policy statement, “Breastfeeding and the Use of Human Milk,” published in March 2012, the American Academy of Pediatrics (AAP) reaffirmed these recommendations:<sup>10</sup>

- Exclusive breastfeeding for about the first six months of a baby’s life.
- Breastfeeding in combination with the introduction of complementary foods until at least 12 months of age.
- Continuation of breastfeeding for as long as mutually desired by mother and baby.

The AAP concludes that “breastfeeding and human milk are the reference normative standards for infant feeding and nutrition” and provides a current analysis of the maternal and child health outcomes related to breastfeeding. Breastfeeding is associated with improved outcomes, including in:

**Infant Outcomes:**

- Otitis media and recurrent otitis media
- Upper and lower respiratory tract infection
- Asthma
- RSV bronchiolitis
- Atopic dermatitis
- Eczema
- Food allergies
- Gastroenteritis
- Inflammatory bowel disease
- Obesity
- Celiac disease
- Type 1 diabetes
- Type 2 diabetes
- Leukemia
- Sudden infant death syndrome (SIDS)
- Neurodevelopment
- Child abuse and neglect

**Preterm Infant Outcomes:**

- Necrotizing enterocolitis (NEC)
- Sepsis
- Immune system host defense development
- Illnesses requiring hospital readmission
- Growth and neurodevelopment
- Clinical feeding tolerance and attainment of full enteral feeding
- Severe retinopathy of prematurity
- Intelligence and mental, motor, and behavior ratings

**Maternal Outcomes:**

- Postpartum blood loss
- Birth spacing
- Postpartum depression
- Postpartum weight retention
- Type 2 diabetes
- Rheumatoid arthritis
- Cardiovascular disease
- Hypertension
- Hyperlipidemia
- Breast cancer
- Ovarian cancer

## EXCESS HEALTH RISKS ASSOCIATED WITH NOT BREASTFEEDING

<i>Outcome</i>	<i>Excess Risk* (%) (95% CI†)</i>	<i>Comparison Groups</i>
<b><i>Among full-term infants</i></b>		
Acute ear infections (otitis media)	100 (56, 233)	EFF* vs. EBF§ for 3 or 6 mos
Eczema (atopic dermatitis)	47 (14, 92)	EBF <3 mos vs. EBF ≥3 mos
Diarrhea and vomiting (gastrointestinal infection)	178 (144, 213)	Never BF** vs. ever BF
Hospitalization for lower respiratory tract diseases in the first year	257 (85, 614)	Never BF vs. EBF ≥4 mos
Asthma, with family history	67 (22, 133)	BF <3 mos vs. ≥3 mos
Asthma, no family history	35 (9, 67)	BF <3 mos vs. ≥3 mos
Childhood obesity	32 (16, 49)	Never BF vs. ever BF
Type 2 diabetes mellitus	64 (18, 127)	Never BF vs. ever BF
Acute lymphocytic leukemia	23 (10, 41)	Never BF vs. >6 mos
Acute myelogenous leukemia	18 (2, 37)	Never BF vs. >6 mos
Sudden infant death syndrome	56 (23, 96)	Never BF vs. ever BF
<b><i>Among preterm infants</i></b>		
Necrotizing enterocolitis	138 (22, 2400)	Never BF vs. ever BF
<b><i>Among mothers</i></b>		
Breast cancer	4 (3, 6)	Never BF vs. ever BF (per year of breastfeeding)
Ovarian cancer	27 (10, 47)	Never BF vs. ever BF

Figure 4: Surgeon General's Call to Action to Support Breastfeeding, 2011.<sup>11</sup>

\*The excess risk is approximated by using the odds ratios reported in the references studies.

†CI = confidence interval    \*EFF = exclusive formula feeding    §EBF = exclusive breastfeeding    \*\*BF = breastfeeding

## SAVING COSTS FOR FAMILIES, COMMUNITIES, AND HOSPITALS

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A cost analysis conducted by researchers from the Harvard Medical School calculated that if prevalence of breastfeeding increased so that 90 percent of U.S. women would breastfeed exclusively for the first six months, 13 billion dollars a year could be saved and over 900 deaths could be prevented. The analysis includes direct and indirect costs of medical care for pediatric illness and cost of premature death.

Even health disparities can be addressed by practicing the *Ten Steps*. All breastfed infants have equal access to the same quality of nutrition, immune protection, and developmental stimulation. Recommended care practices to support breastfeeding provide long-term protection for economically disadvantaged families against a disproportionate burden of disease and health-care expenses. In addition, avoiding the cost of formula leaves more dollars in the family budget.

A study of Baby-Friendly hospitals in the U.S. found that whether a hospital had a large or small population of women who were African American or low income, breastfeeding outcomes were the same, with an average initiation rate of 84 percent and in-hospital exclusivity rate of 78 percent.<sup>12</sup> As the national breastfeeding initiation rate of African American mothers was 60 percent in 2007 compared to 75 percent for the general population, *Ten Steps* practices make a stark difference.<sup>13</sup>

According to the CDC, the most effective public health improvement strategies are those that change the context for health so that individuals' default choices are those choices which are healthy.<sup>14</sup> When organizational policies, practices, and environments are changed to support healthy choices such as breastfeeding, a significant health impact can be realized for a large number of people with very little individual effort required by those who are at risk for poor health outcomes. As the site of the first minutes, hours, and days of a newborn's life, birthing facilities are first in line to make changes that will improve breastfeeding rates.

### BOTTOM-LINE BONUSES FOR HOSPITALS

- Improved patient outcomes.
- Less space required for managing feeding supplies and newborn nursery.
- Reduced costs and time associated with breastfeeding complications.
- Increased patient satisfaction and safety.
- Elevation of staff morale and teamwork.
- Enhanced reputation for quality and patient-centered care.

## TAKE STEPS TO MAKE THE CHANGE

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Every facility has the ability to improve its maternity care to be more closely aligned with best practices in infant nutrition and care. The Model for Improvement, developed by Associates in Process Improvement, is a simple yet powerful tool for accelerating quality improvement. Details on this model are available on the Institute for Healthcare Improvement website at: [www.ihl.org](http://www.ihl.org).

The Texas Department of State Health Services encourages facilities to consider their current practices using the Self-Assessment Checklist located in the pocket of this guide. What is one area in which your facility is able to begin making changes for improvement this week?

### ***Draft a plan to help put quality improvement into action.***

**The** *(facility name)*

**will accomplish** *(include a general overarching statement of the change you wish to make. What is your desired end result?)*

**by** *(time frame, in which you intend to accomplish improvement)*

**for** *(what group are you doing this for—what population will the change impact?)*

**because** *(what is the reason and rationale for this improvement?)*

**We can make the following changes to accomplish this improvement:** *(what best practices, strategies, and activities can be tested to accomplish what you intend to change?)*

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**We will know the changes improve quality if:** *(what simple measures can be used to let you know that you've accomplished your facility's goal?)*

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**When will you begin?** Taking small steps doesn't require extensive planning. Now that you have answered the questions above, it is time to move your plan into action. Put your chosen strategies to the test, and study the outcomes.

**Keep going!** Use your measures as a guide to let you know whether, over time, the changes are resulting in improved care. Make adjustments as needed, and continue to build on your successes with further improvements.

*"Texas Ten Step gives our staff pride in our facility."*

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—LINDA ZECCOLA, RN, IBLC, RLC  
SETON NORTHWEST HOSPITAL

## DSHS IS HERE TO HELP AND TO RECOGNIZE YOUR SUCCESSES

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The Texas Department of State Health Services offers free resources such as breastfeeding trainings, education materials, and other tools and technical assistance. To learn about resources available to help you achieve the improvements you aim to accomplish, visit: [www.TexasTenStep.org](http://www.TexasTenStep.org) and go to the training and resource page.

You can get assistance in starting or progressing in the *Ten Steps* from the Texas Ten Step Program. Even if you are not yet ready to apply for the Texas Ten Step designation, the program is here to help you with guidance and best practices to support your improvement goals. Once your facility addresses 85 percent of the *Ten Steps to Successful Breastfeeding*, it becomes eligible to receive designation as a Texas Ten Step Facility.

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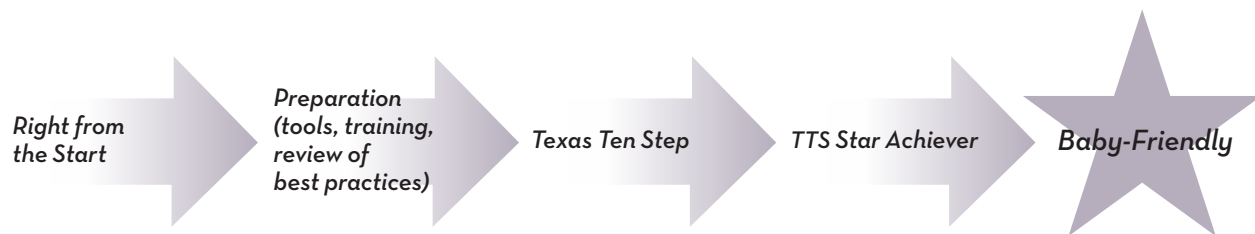


Figure 5: Texas Ten Step Pathway to Recommended Care.

**Is your facility already Texas Ten Step-designated?** Congratulations! You have made significant progress on the continuum to best practice care. DSHS encourages your continued efforts toward full implementation of the *Ten Steps to Successful Breastfeeding* and designation by Baby-Friendly USA as a Baby-Friendly Facility. Visit [www.TexasTenStep.org](http://www.TexasTenStep.org) for more information about Texas Ten Step Star Achiever, an initiative designed to assist facilities to take the next steps toward providing recommended care for lactating mothers and their babies.



***For more information about the Texas Ten Step Program, contact:***

Texas Ten Step Program Coordinator

Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

Texas Health and Human Services

4616 W Howard Lane, Bldg 8, Ste 840 • Austin, TX 78728

(512) 341-4592 • [www.TexasTenStep.org](http://www.TexasTenStep.org)

[texastenstep@hhsc.state.tx.us](mailto:texastenstep@hhsc.state.tx.us)

## References

- 1 DiGirolamo AM, Grummer-Strawn LM, Fein SB. Effect of maternity care practices on breastfeeding. *Pediatrics*. 2008; 122(S2):S43-9.
- 2 Centers for Disease Control and Prevention. 2007 CDC National Survey of Maternity Practices in Infant Nutrition and Care (mPINC). Available from: <http://cdc.gov/breastfeeding/data/mpinc/index.htm>.
- 3 Petrova A, Hegyi T, Mehta R. Maternal race/ethnicity and one-month exclusive breastfeeding in association with the in-hospital feeding modality. *Breastfeeding Med*. 2007; 2(2):92-8.
- 4 Texas Department of State Health Services, Texas WIC Infant Feeding Practices Survey, 2011.
- 5 Shealy KR, Li R, Benton-Davis S, Grummer-Strawn LM. *The CDC Guide to Breastfeeding Interventions, Maternity Care Practices*. Atlanta, GA: US Departments of Health and Human Services, Centers for Disease Control and Prevention; 2005; P4. Available from: [www.cdc.gov/breastfeeding/resources/guide.htm](http://www.cdc.gov/breastfeeding/resources/guide.htm).
- 6 Joint Commission. Perinatal Care Core Measure Set. Available from: [www.jointcommission.org/PerformanceMeasurement/PerformanceMeasurement/Perinatal+Care+Core+Measure+Set.htm](http://www.jointcommission.org/PerformanceMeasurement/PerformanceMeasurement/Perinatal+Care+Core+Measure+Set.htm).
- 7 Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of breastfeeding intervention trial (PROBIT): A randomized trial in the republic of Belarus. *JAMA*. 2001; 285:413-20.
- 8 DelliFraine J, Langabeer J, Williams JF, Gong AK, Delgado RI, Gill SL. Cost comparison of baby-friendly and non-baby-friendly hospitals in the United States. *Pediatrics*. 2011; 127(4), e-989-94.
- 9 Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. 2001. Washington, DC: National Academy Press.
- 10 American Academy of Pediatrics. Position statement: Breastfeeding and the use of human milk. *Pediatrics*. 2012; 129(3), e827-41.
- 11 U.S. Department of Health and Human Services. *The Surgeon General's Call to Action to Support Breastfeeding*. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011. Available from: <http://www.cdc.gov/breastfeeding/promotion/calltoaction.htm>.
- 12 Merewood A, Mehta SD, Chamberlain LB, Philipp BL, Bauchner H. Breastfeeding rates in US baby-friendly hospitals: Results of a national survey. *Pediatrics*. 2005; 116(3):628-34.
- 13 Centers for Disease Control and Prevention, Department of Health and Human Services. *Provisional Breastfeeding Rates by Socio-demographic Factors, Among Children Born in 2007*, National Immunization Survey. Washington, DC: Centers for Disease. Available from: [http://www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm).
- 14 Frieden TR. A framework for public health action: The health impact pyramid. *Am J Public Health*. 2010;100(4):590-595.







TEXAS  
Health and Human  
Services



# AIM I: SAFETY

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## THE INSTITUTE OF MEDICINE'S "AIMS OF IMPROVEMENT" IN RELATION TO THE TEN STEPS

The Texas Ten Step Program, developed by the Texas Hospital Association and the Texas Department of Health and endorsed by the Texas Medical Association, provides recognition to facilities that have adopted recommended care practices to support breastfeeding. *The Ten Steps to Successful Breastfeeding*, which form the basis of both the Texas Ten Step Program and the WHO/UNICEF Baby-Friendly Hospital Initiative, are a bundle of recommended maternity care practices that, when implemented together, improve infant feeding outcomes.

### **The Ten Steps are:**

1. Have a written breastfeeding policy that is routinely communicated to all health-care staff.
2. Train all health-care staff in the skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within an hour of birth. Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour. Encourage mothers to recognize when their babies are ready to breastfeed and offer help if needed.
5. Show mothers how to breastfeed and how to maintain lactation, even when they are separated from their infants.
6. Give 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. Teach mothers cue-based feeding regardless of feeding method.
9. Give no artificial nipples or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital or clinic.

### **AIM 1: Safety**

Birth facilities can improve the safety and stability of all infants by using evidence-based practices promoted by the *Ten Steps* to protect against infection, hypothermia, hypoglycemia, jaundice, dehydration, and other harmful conditions.

1. A well-researched policy establishes clear guidance about the most effective practices for reducing and managing risk.
2. Staff trained in the *Ten Steps*, the Code, and basic breastfeeding knowledge and skills can successfully implement evidence-based care that optimizes infant feeding outcomes. Baby-Friendly hospitals often report reduced rates and readmissions for hypoglycemia, jaundice, and dehydration.
3. Infants whose mothers receive accurate information prenatally about breastfeeding, skin-to-skin

contact, rooming-in, and demand-feeding are likelier to benefit from the resultant protections.

4. Skin-to-skin contact promotes physiologic stability, protects the infant against infection, reduces risk of hypothermia and hypoglycemia, and promotes optimal breastfeeding. An unhurried environment and unlimited skin-to-skin contact facilitate effective feeding and allow an infant access to immunity-rich colostrum from the mother's breast.
5. Support for effective breastfeeding reduces maternal risk for nipple trauma, engorgement, mastitis, milk insufficiency, and lactation failure. It also reduces the infant risk for jaundice, hypoglycemia, excessive weight loss, dehydration, failure to thrive, and the short- and long-term risks of non-exclusive breastfeeding.
6. In the absence of a medical indication for supplemental feedings, breastfeeding is the safest form of infant feeding. It provides nutrients and immune factors specific to each infant's needs. Demand-feeding yields the right nutrition at the right time in the right amount. Exclusive breastfeeding conveys significant health benefits,<sup>1-3</sup> whereas alternate forms of nutrition pose significant health risks<sup>4-12</sup> due to manufacturing errors,<sup>13</sup> or contamination by bacteria or environmental pollutants,<sup>14-17</sup> or unsafe handling and misuse.<sup>18-22</sup>
7. Soon after birth, bacteria colonize the infant's nasopharynx and the mother's milk ducts. When remaining close after birth, the mother transfers her strain of microflora to her infant. These accumulate in the infant's skin and digestive and respiratory tracts, limiting the growth of pathogenic bacteria and curbing infection.<sup>23, 24</sup> Rooming-in results in more frequent breastfeedings and helps control infection. Breastmilk imparts antibodies and local immunity to pathogens in the rooming-in environment. It will not protect against pathogens in other environments (e.g., the nursery). Rooming-in also facilitates frequent skin-to-skin contact, which helps regulate and maintain infant temperature and blood glucose levels and is associated with more effective feeding and less crying.<sup>25</sup>
8. Demand-feeding is the safest and healthiest way to feed an infant. Restricting, limiting, or scheduling feedings may result in:
  - Less intake of nutrient- and immunity-rich colostrum and higher rates of jaundice.
  - Delay and reduction in infant weight gain and development of a full milk supply.
  - Increased risk of maternal engorgement, mastitis, sore nipples, and lactation failure.
  - Increased use of formula and other supplemental feedings and early weaning.
  - Increased lifetime health risks associated with non-exclusive breastfeeding.
9. Eliminating routine, non-medical use of pacifiers and artificial nipples during the hospital stay increases patient safety. Early use of pacifiers and artificial nipples has been associated with ineffective breastfeeding, nipple pain and trauma, reduced feeding intensity, insufficient weight gain, reduced establishment of milk supply, and early weaning. The American Academy of Pediatrics (AAP) recommends considering pacifier use when placing an infant down for sleep as a possible risk-reduction strategy for sudden infant death syndrome (SIDS), but recommends that this practice be delayed until after the infant is 1 month of age to ensure breastfeeding is well established.<sup>26</sup> Inform your maternity patients that breastfeeding significantly reduces the risk of SIDS.<sup>27, 28</sup> Pacifier use during the maternity stay should be limited to infants for whom the benefit outweighs the risk. For example, pacifiers may facilitate gastrointestinal development in premature infants or soothe an infant during painful procedures. Policies restricting pacifier use should incorporate these exceptions.
10. Early postpartum follow-up can avert or reduce problems that stem from ineffective breastfeeding,

such as hyperbilirubinemia, hypernatremic dehydration, failure to thrive, and breast infection.<sup>29-37</sup> Postpartum support also facilitates detection and remediation of other problems such as maternal depression, poor social support, and unsafe handling or administration of infant formula upon weaning. According to a recent cost analysis, increasing exclusive six-month breastfeeding rates to 90 percent could save an estimated \$13 billion and more than 900 lives per year in the U.S.<sup>38</sup>

## References

- 1 Duijts L, Jaddoe VWV, Hofman A, et al. Prolonged and exclusive breastfeeding reduces the risk of infectious diseases in infancy. *Pediatrics*. 2010; 126(1): e18-25.
- 2 Ip S, Chung M, Raman G, et al. 2007. Breastfeeding and maternal and infant health outcomes in developed countries. Rockville (MD): US Department of Health and Human Services. Available from: [www.ahrq.gov/downloads/pub/evidence/pdf/brfout/brfout.pdf](http://www.ahrq.gov/downloads/pub/evidence/pdf/brfout/brfout.pdf).
- 3 Ladomenou F, Moschandreas J, Kafatos A, et al. Protective effect of exclusive breastfeeding against infections during infancy: A prospective study. *Arch Dis Child*. 2010; 95(12): 1004-8.
- 4 Bartick M, Reinhold A. The burden of suboptimal breastfeeding in the United States: A pediatric cost analysis. *Pediatrics*. 2010; 125(5): e1048-56.
- 5 McNeil ME, Labbok MH, Abrahams SW. What are the risks associated with formula feeding? A re-analysis and review. *Birth*. 2010 ;37(1): 50-8.
- 6 Mackie RI, Sghir A, Gaskins HR. Developmental microbial ecology of the neonatal gastrointestinal tract. *Am J Clin Nutr*. 1999; 69(Suppl): 1035S-1045S.
- 7 Heck, I. J. and Erenberg A. Serum glucose levels in term neonates during the first 48 hours of life. *J Pediatr*. 1987; 110(1): 119-22.
- 8 Bullen CL, Tearle PV, Stewart MG. The effect of humanized milks and supplemented breast feeding on the faecal flora of infants. *J Med Microbiol*. 1977; 10(4): 403-13.
- 9 Rubaltelli FF, Biadaioli R, Pecile P, et al. Intestinal flora in breast and bottle-fed infants. *J Perinat Med*. 1998; 26(3): 186-91.
- 10 Catassi C, Bonucci A, Coppa GV, et al. Intestinal permeability changes during the first month: Effect of natural versus artificial feeding. *J Pediatr Gastroenterol Nutr*. 1995; 21(4): 383-6.
- 11 Karjalainen J, Martin JM, Knip M, et al. A bovine albumin peptide as a possible trigger of insulin-dependent diabetes mellitus. *N Engl J Med*. 1992; 327(5): 302-7.
- 12 Kostraba JN, Cruickshanks KJ, Lawler-Heavner J, et al. Early exposure to cow's milk and solid foods in infancy, genetic predisposition, and risk of IDDM. *Diabetes*. 1993; 42(2): 288-95.
- 13 National Alliance for Breastfeeding Advocacy. *Recalls of Infant Feeding Products*; 2010. Available from: [www.nababreastfeeding.org/images/Formulapercent20Recalls.pdf](http://www.nababreastfeeding.org/images/Formulapercent20Recalls.pdf).
- 14 Drudy D, Mullane N, Quinn T, et al. Enterobacter sakazakii: An emerging pathogen in powdered infant formula. *Clin Infect Dis*. 2006; 42(7): 996-1002.
- 15 Jones TF, Ingram LA, Fullerton KE, et al. A case-control study of the epidemiology of sporadic salmonella infection in infants. *Pediatrics*. 2006; 118(6): 2380-7.
- 16 Baker R. Infant formula safety. *Pediatrics*. 2002; 110(4): 833-5.
- 17 Shannon M, Graef J. Lead intoxication in infancy. *Pediatrics*. 1992; 89(1): 87-90.
- 18 Labiner-Wolfe J, Fein S, Shealy K. Infant formula handling education and safety. *Pediatrics*. 2008;122 Suppl 2:S85-90.
- 19 Renfrew M, Ansell J, Macleod K. Formula feed preparation: Helping reduce the risks; A systematic review. *Arch Dis Child*. 2003; 88(10): 855-8.
- 20 Bruce R, Kliegman R. Hyponatremic seizures secondary to oral water intoxication in infancy: Association with commercial bottled drinking water. *Pediatrics*. 1997; 100(6): E4.
- 21 Keating J, Shears G, Dodge P. Oral water intoxication in infants, an American epidemic. *Am J Dis Child*.

- 1991; 145(9): 985–90.
- 22 McJunkin J, Bithoney W, McCormick M. Errors in formula concentration in an outpatient population. *J Pediatr.* 1987; 111(6 Pt1): 848–50.
  - 23 Light IJ, Walton RL, Sutherland JM, et al. Use of bacterial interference to control a staphylococcal nursery outbreak: Deliberate colonization of all infants with the 502A strain of staphylococcus aureus. *Am J Dis Child.* 1967;113(3): 291–300.
  - 24 Shinefield HR, Ribble JC, Boris M. Bacterial interference: Its effect on nursery-acquired infection with staphylococcus aureus: Preliminary observations on artificial colonization of newborns. *Am J Dis Child.* 1963; 105: 646–54.
  - 25 Moore ER, Anderson GC, Bergman N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev.* 2007; (3): CD003519.
  - 26 American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome. The changing concept of sudden infant death syndrome: Diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk. *Pediatrics.* 2005; 116(5): 1245–55.
  - 27 Ip S, Chung M, Raman G, et al. *Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries.* Rockville, MD: Agency for Healthcare Research and Quality. Evidence report/Technology assessment No. 153; 2007.
  - 28 Vennemann MM, Bajanowski T, Brinkmann B, et al. Does breastfeeding reduce the risk of sudden infant death syndrome? *Pediatrics.* 2009; 123(3): e406–10.
  - 29 Walker, M. *Breastfeeding Management for the Clinician: Using the Evidence*, 2nd Ed. Sudbury, MA: Jones and Bartlett Publishers; 2011.
  - 30 American Academy of Pediatrics Subcommittee on Hyperbilirubinemia. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics.* 2004; 114(1): 297–316.
  - 31 The Joint Commission. *Sentinel Event Alert*, Issue 31: Revised guidance to help prevent kernicterus. 2004. Available from: [www.jointcommission.org/sentinel\\_event\\_alert\\_issue\\_31\\_revised\\_guidance\\_to\\_help\\_prevent\\_kernicterus/](http://www.jointcommission.org/sentinel_event_alert_issue_31_revised_guidance_to_help_prevent_kernicterus/).
  - 32 Livingstone VH, Willis CE, Abdel-Wareth LO, et al. Neonatal hypernatremic dehydration associated with breast-feeding malnutrition: A retrospective survey. *CMAJ.* 2000; 162(5): 647–52.
  - 33 Manganaro R, Mami C, Marrone T, et al. Incidence of dehydration and hypernatremia in exclusively breast-fed infants. *J Pediatr.* 2001; 139(5): 673–5.
  - 34 Caglar MK, Ozer I, Altugan FS. Risk factors for excess weight loss and hypernatremia in exclusively breast-fed infants. *Braz J Med Biol Res.* 2006; 39(4): 539–44.
  - 35 Neifert MR. Prevention of breastfeeding tragedies. *Pediatr Clin North Am.* 2001; 48(2): 273–97.
  - 36 Unal S, Arhan E, Kara N, et al. Breastfeeding-associated hypernatremia: Retrospective analysis of 169 term newborns. *Pediatr Int.* 2008; 50(1): 29–34
  - 37 World Health Organization (WHO). *Mastitis: Causes and Management.* Geneva, Switzerland: WHO. 2000. Available from: [www.who.int/child\\_adolescent\\_health/documents/fch\\_cah\\_00\\_13/en/index.html](http://www.who.int/child_adolescent_health/documents/fch_cah_00_13/en/index.html).
  - 38 Bartick M, Reinhold A. The burden of suboptimal breastfeeding in the United States: A pediatric cost analysis. *Pediatrics.* 2010; 125(5): e1048–56.



## AIM 2: EFFECTIVENESS

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### THE INSTITUTE OF MEDICINE'S "AIMS OF IMPROVEMENT" IN RELATION TO THE TEN STEPS

The Texas Ten Step Program, developed by the Texas Hospital Association and the Texas Department of Health and endorsed by the Texas Medical Association, provides recognition to facilities that have adopted recommended care practices to support breastfeeding. *The Ten Steps to Successful Breastfeeding*, which form the basis of both the Texas Ten Step Program and the WHO/UNICEF Baby-Friendly Hospital Initiative, are a bundle of recommended maternity care practices that, when implemented together, improve infant feeding outcomes.

#### ***The Ten Steps are:***

1. Have a written breastfeeding policy that is routinely communicated to all health-care staff.
2. Train all health-care staff in the skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within an hour of birth. Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour. Encourage mothers to recognize when their babies are ready to breastfeed and offer help if needed.
5. Show mothers how to breastfeed and how to maintain lactation, even when they are separated from their infants.
6. Give 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. Teach mothers cue-based feeding regardless of feeding method.
9. Give no artificial nipples or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital or clinic.

#### ***AIM 2: Effectiveness***

Implementation of the *Ten Steps* promotes evaluation of current practices and challenges birth facilities to replace ineffective practices with universally recognized evidence-based practices for maternity care.

1. Developing policy through a thorough review of current scientific knowledge ensures that policy is evidence-based and that the most effective strategies are consistently applied. Enacting and communicating such written policy frames a sanctioned course of action that all staff should be expected to follow for performing and evaluating best practices.
2. The Ten Steps and the Code are evidence-based practices that are universally recommended components of optimal perinatal and newborn care. When staff members are trained to follow these



practices, they are equipped to provide recommended care.

3. Breastfeeding initiation and continuation increase when infant feeding decisions are informed by factual, accurate, and full information about the benefits of breastfeeding and the risks of not breastfeeding. When families have received information prenatally about the practices supportive of breastfeeding, including skin-to-skin contact, rooming-in, and demand-feeding, they enter your facility expecting to participate in these practices.
4. Skin-to-skin contact is the appropriate level of technology for most newborn infants. When dried and placed skin-to-skin against the mother in a sufficiently warmed room and covered with a warmed blanket, the infant's temperature is regulated at least as effectively as by a radiant warmer. Infants denied skin-to-skin contact without a medical indication lack access to the physiologic protections of the maternal environment.
5. Assessment and support of nutritional status is a basic component of patient care. Assessment of lactation acuity ensures that the appropriate level of support is provided for maximum effectiveness. Effective milk removal and transfer improves breastfeeding and other health outcomes.
6. The adequacy, sufficiency, and optimal duration of exclusive breastfeeding is well established.<sup>1-4</sup> Additional fluids are not needed, even in hot climates.<sup>5-8</sup> Studies show that infants who are allowed to regulate their own intake receive gradually increasing amounts of colostrum, and then mature milk, to meet their needs.<sup>9-11</sup> Exclusive breastfeeding throughout the newborn's hospital stay is a National Quality Forum-endorsed voluntary consensus standard for hospital care. The Joint Commission has adopted it as one of five core measures for perinatal care. Eliminating non-medically indicated supplemental feedings for the breastfed infant increases the frequency and effectiveness of breastfeeding, ensures timely establishment of an abundant milk supply, reduces the risk of engorgement, and improves maternal and infant health outcomes.
7. Rooming-in 24/7 is positively associated with breastfeeding duration and exclusivity. It also results in more frequent feedings, greater milk intake, and establishment of a strong milk supply. Infants who room-in expend less energy from crying, gain more weight, rely less on formula supplementation, and have a reduced risk of jaundice.<sup>12-23</sup> Nursery care interferes with demand-feeding and increases feeding complications. In addition, the timing of bringing a newborn to the mother's room doesn't always coincide with the baby's readiness to feed. Rooming-in helps mothers to respond to their babies and feed them whenever they are hungry. It allows a mother to learn her baby's early hunger cues, such as mouthing and hand-to-mouth activity,<sup>24</sup> which yields optimal feedings. (See Step 8.) Frequent, unrestricted feedings also reduce the likelihood and severity of engorgement.
8. The benefits of demand-feeding, which can occur only during 24-hour rooming-in, are well-established. Demand-feeding supports the physiologic needs of the infant as well as the physiologic requirements for establishing and sustaining lactation. In the first few weeks, milk supply and the upper limit of milk production are established by proliferation of prolactin receptors and secretion of prolactin in the mother. This occurs in response to suckling and stimulation of the breasts and by local effects of milk removal.<sup>25-29</sup> The more milk removed from the breast, the more milk will be produced. Because prolactin levels are higher at night, night feedings are especially critical for maximizing milk supply. Demand-feeding ensures that a sufficient supply is established to meet the baby's needs for growth and that milk is emptied from the breasts sufficiently to ensure maternal comfort and breast health.

9. Insufficient milk supply<sup>30</sup> is the most commonly cited reason that Texas women report for early weaning. Frequent demand-based feeding ensures establishment and maintenance of a good milk supply. Because such feeding decreases with the use of pacifiers or artificial nipples, facilities should avoid their use during the maternity stay unless medically indicated. Pacifiers and artificial nipples should not be used to delay an infant's need to suckle at the breast.
10. Fostering and linking patients to postpartum-support systems in the community is evidence-based care. Numerous studies demonstrate that postpartum support for breastfeeding can have a significant impact on breastfeeding duration and exclusivity.

## References

- 1 American Academy of Pediatrics. Breastfeeding and the use of human milk. *Pediatrics*. 2005; 115(2): 496-506. Available from: [aappolicy.aappublications.org/cgi/content/full/pediatrics;115/2/496](http://aappolicy.aappublications.org/cgi/content/full/pediatrics;115/2/496).
- 2 Kramer MS, Kakuma R. Optimal duration of exclusive breastfeeding. *Cochrane Database Syst Rev*. 2002; (1): CD003517.
- 3 Committee on Obstetric Practice and Committee on Health Care for Underserved Women. *Breastfeeding: Maternal and Infant Aspects*. ACOG Committee Opinion 361. Washington, DC: American College of Obstetricians and Gynecologists; 2007.
- 4 Butte NF, Lopez-Alarcon MG, Garza C. *Nutrient Adequacy of Exclusive Breastfeeding for the Term Infant During the First Six Months of Life*. Geneva, Switzerland: World Health Organization; 2002.
- 5 Sachdev HPS, Krishna J, Puri RK, et al. Water supplementation in exclusively breastfed infants during summer in the tropics. *Lancet*. 1991; 337(8747): 929-33.
- 6 Brown KH, Creed de Kanashiro H, del Aguila R, et al. Milk consumption and hydration status of exclusively breastfed infants in a warm climate. *J Pediatr*. 1986; 108( 5 Pt 1): 677-80.
- 7 Goldberg NM, Adams E. Supplementary water for breast-fed babies in a hot and dry climate—not really a necessity. *Arch Dis Child*. 1983; 58(1): 514-8.
- 8 Amroth SG. Water requirements of breast-fed infants in a hot climate. *Am J Clin Nutr*. 1978; 31(7): 1154-7.
- 9 Casey CE, Neifert MR, Seacat JM, et al. Nutrient intake by breastfed infants during the first five days after birth. *Am J Dis Child*. 1986; 140(9): 933-6.
- 10 Houston MJ, Howie PW, McNeilly AS. Factors affecting the duration of breast feeding: 1. Measurement of breast milk intake in the first week of life. *Early Hum Dev*. 1983; 8(1): 49-54.
- 11 Saint L, Smith M, Hartman PE. The yield and nutrient content of colostrum and milk of women giving birth to 1 month post-partum. *Br J Nutr*. 1984; 52(1): 87-95.
- 12 World Health Organization (WHO). *Evidence for the Ten Steps to Successful Breastfeeding*. Geneva, Switzerland: WHO; 1998. Available from: [www.who.int/child\\_adolescent\\_health/documents/9241591544/en/index.html](http://www.who.int/child_adolescent_health/documents/9241591544/en/index.html).
- 13 Bystrova K, Matthiesen AS, Widström AM, et al. The effect of Russian maternity home routines on breastfeeding and neonatal weight loss with special reference to swaddling. *Early Hum Dev*. 2007; 83(1): 29-39.
- 14 Daglas M, Antoniou E, Pitselis G, et al. Factors influencing the initiation and progress of breastfeeding in Greece. *Clin Exp Obstet Gynecol*. 2005; 32(3): 189-92.

- 15 Declercq ER, Sakala C, Corry MP, et al. Listening to mothers II: Report of the second national US survey of women's childbearing experiences. *J Perinat Educ*. 2007; 16(4): 15-7.
- 16 Fairbank L, O'Meara S, Renfrew MJ, et al. A systematic review to evaluate effectiveness of interventions to promote the initiation of breastfeeding. *Health Technol Assess*. 2000; 4(25): 1-171.
- 17 Flores-Huerta S, Cisneros-Silva I. Mother-infant rooming-in and exclusive breast feeding. *Salud Publica Mex*. 1997; 39(2): 110-6.
- 18 Lindenberg CS, Cabrera Artola R, Jimenez V. The effect of early post-partum mother-infant contact and breast-feeding promotion on the incidence and continuation of breastfeeding. *Int J Nurs Stud*. 1990; 27(3): 179-86.
- 19 Mikiel-Kostyra K, Mazur J, Wojdan-Godek E. Factors affecting exclusive breastfeeding in Poland: Cross-sectional survey of population-based samples. *Soz Praventivmed*. 2005; 50(1): 52-9.
- 20 Pérez-Escamilla R, Pollitt E, Lönnerdal B, et al. Infant feeding policies in maternity wards and their effect on breast-feeding success: An analytical overview. *Am J Public Health*. 1994; 84(1): 89-97.
- 21 Syafruddin M, Djauhariah AM, Dasril D. A study comparing rooming-in with separate nursing. *Paediatr Indones*. 1988; 28(5-6): 116-23.
- 22 Yamauchi Y, Yamanouchi I. The relationship between rooming-in/not rooming-in and breast-feeding variables. *Acta Paediatr Scand*. 1990; 79(11): 1017-22.
- 23 Yamauchi Y, Yamanouchi I. Breast-feeding frequency during the first 24 hours after birth in full-term neonates. *Pediatrics*. 1990; 86(2): 171-5.
- 24 Anderson GC. Risk in mother-infant separation postbirth. *Image J Nurs Sch*. 1989; 21(4): 196-9.
- 25 Woolridge MW, Phil D, Baum JD. Recent advances in breast feeding. *Acta Paediatr Jpn*. 1993; 35(1): 1-12.
- 26 Wilde CJ, Prentice A, Peaker M. Breast-feeding: Matching supply with demand in human lactation. *Proc Nutr Soc*. 1995; 54(2): 401-6. [Review].
- 27 Daly SE, Owens RA, Hartmann PE. The short-term synthesis and infant-regulated removal of milk in lactating women. *Exp Physiol*. 1993; 78(2): 209-20.
- 28 de Carvalho M, Robertson S, Friedman A, Klaus M. Effect of frequent breastfeeding on early milk production and infant weight gain. *Pediatrics*. 1983; 72(3): 307-11.
- 29 Hartmann PE, Owens RA, Cox DB, et al. Breast development and control of milk synthesis. *Food Nutr Bull*. 1996; 17(4): 292-304.
- 30 Texas Department of State Health Services. *Breastfeeding Beliefs, Attitudes, and Practices in the Texas WIC Population: State and Regional Findings From the 2009 Infant Feeding Practices Survey*. Austin, TX: Division of Family and Community Health Services, Texas Department of State Health Services; 2010. Available by request from: [tracy.erickson@hpsc.state.tx.us](mailto:tracy.erickson@hpsc.state.tx.us) or [julie.stagg@dshs.state.tx.us](mailto:julie.stagg@dshs.state.tx.us).



## AIM 3: PATIENT-CENTEREDNESS

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7. Practice rooming-in. Allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand. Teach mothers cue-based feeding regardless of feeding method.
9. Give no artificial nipples or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital or clinic.

#### ***AIM 3: Patient-centeredness***

Care should honor and empower patients as individuals and occur within a context of respect for the patient's choices, culture, values, social context, and specific needs. Implementation of the *Ten Steps* places families at the center of care, promotes informed decision-making, facilitates achievement of patients' infant feeding goals, and results in higher customer satisfaction rates.

1. Implementation of an evidence-based policy establishes a framework for providing coordinated, respectful, responsive care that can be tailored to individual patients.
2. Training gives staff the knowledge, skills, and practical experience to best inform and support

families to care for their babies within the context of the family's culture, needs, and desires. Successful implementation of the *Ten Steps* enhances the bonding experience for all families and reduces the influence of commercial pressures on infant feeding decisions.

3. Prenatal education about breastfeeding and the practices that support it is critical to ensure that families feel empowered to make decisions about infant feeding.
4. Skin-to-skin contact is the physiologic norm for human mothers and infants. Maternal and infant health, wellness, and attachment should be facilitated through skin-to-skin contact unless there is a medical indication for which the risks of immediate skin-to-skin care outweigh the benefits, or unless the mother explicitly requests to avoid or interrupt skin-to-skin contact. If the mother is unavailable, the infant should be placed in skin-to-skin contact with the father or other caretaker.
5. Staff support for mastering comfortable, effective feeding techniques instills confidence in the mother and helps her achieve her infant feeding goals. Providing consistent, accurate information also increases patient satisfaction.
6. Promoting and supporting exclusive breastfeeding in the context of informed decision-making helps women to confidently work toward achieving their breastfeeding goals. Eliminating non-medically indicated supplemental feedings removes unnecessary barriers to the establishment and continuation of breastfeeding.
7. Regardless of feeding decisions, all healthy mothers and babies benefit from rooming-in. It is a component of family-centered maternity care, providing maximum opportunities for new parents to interact with and learn how to care for the baby as well as how to incorporate the baby into the family unit. Patients report greater satisfaction with a system of rooming-in care. The practice reassures mothers because they can keep an eye on their babies. While together, parents quickly learn their babies' patterns of behavior and feeding, and they discover how best to care for and soothe their newborns more confidently.<sup>1,2</sup> Rooming-in may also provide long-term emotional benefits. Research shows that mothers who remain close to their newborns for extended amounts of time postpartum are less likely to abuse, neglect, or abandon their children.<sup>3,4</sup> Babies use their senses to get to know their mothers and can recognize their mother's scent soon after birth. Infants feel safest when they can feel, hear, and smell their mothers, and being near mom makes it easier for them to adapt to life outside the womb. The bright lights and frequent disturbances in nurseries can upset an infant's physiologic regulation. In contrast, rooming-in and skin-to-skin contact help babies regulate their sleep cycles, heart rates, body temperatures, and other internal rhythms.<sup>5</sup> Studies show that infants who room-in cry and move less, have more organized cries, startle less easily, soothe more quickly, and spend more time quietly sleeping. They thus expend less energy and have more stable blood glucose levels.<sup>6,7</sup> Mothers who are with their babies for longer periods of time score higher on tests of maternal attachment.<sup>8-10</sup> As a baby's attachment instinct is highest during the first few days, continuous attachment has a positive effect on his or her brain development.<sup>11</sup>
8. Providing an environment supportive of demand-feeding provides patient-centered care for families and their babies because:
  - Families are empowered to learn to care for and respond to their babies' needs competently, and babies have their needs met in a timely manner.

- Temptation to supplement with formula is reduced.
  - Mastery of breastfeeding and establishment of a full milk supply occur more quickly and with fewer difficulties.
  - Infants who feed on demand learn to recognize their senses of hunger and satiety. This self-regulation of appetite may help explain the lower rates of obesity in children who were breastfed.
9. Without systems to promote family-centered care, staff may find it expedient to use artificial means to pacify a baby. However, using pacifiers and artificial nipples in the early postpartum can negatively affect the care experience for both parents and infants. Use of pacifiers during the maternity stay may interfere with the parents' ability to learn to recognize infant hunger cues, causing delays in parental responsiveness and demand-feeding.<sup>12,13</sup> If a hungry baby is given a pacifier instead of a feeding, the baby may take less milk and not grow as well.<sup>14</sup> If pacifiers or artificial nipples and bottle-feeding are used to placate a baby who is fussy for reasons other than hunger, the infant's true need may not be addressed in a timely manner. In addition to interfering with normal establishment of breastfeeding, the use of pacifiers may also be a marker for problem breastfeeding, a lack of confidence with breastfeeding, or an attempt to space and delay feedings.<sup>12,16-18</sup> Early lack of breastfeeding confidence is associated with early weaning.<sup>19</sup> In the context of family-centered care, hospital staff can explore pacifier use with families, assess feeding efficacy and sufficiency, and provide anticipatory guidance and support.
  10. Assess each patient's infant feeding needs and available support system before discharge, involving key family members when possible. Doing this, along with facilitating access to high-quality, culturally relevant professional and peer support upon discharge, maximizes the likelihood that families will have their individual needs met, including fulfilling their personal infant feeding goals.

## References

- 1 Lee YM, Song KH, Kim YM, et al. Complete rooming in care of newborn infants. *Korean J Pediatr.* 2010; 53(5): 634-8.
- 2 Sostek AM, Scanlon JW, Abrahamson DC. Postpartum contact and maternal confidence and anxiety: A confirmation of short-term effects. *Infant Behav Dev.* 1982; 5(2-4): 323-9.
- 3 Lvoff NM, Lvoff V, Klauss, MH. Effect of the baby-friendly initiative on infant abandonment in a Russian hospital. *Arch Pediatr Adolesc Med.* 2000; 154(5): 474-7.
- 4 O'Connor S, Vietze PM, Sherrod K, et al. Reduced incidence of parenting inadequacy following rooming-in. *Pediatrics.* 1980; 66(2).
- 5 World Health Organization (WHO), Department of Reproductive Health and Research. *Thermal Protection of the Newborn: A Practical Guide.* Geneva, Switzerland: WHO; 1997. Available from: [www.who.int/reproductivehealth/publications/maternalperinatal\\_health/MSM\\_97\\_2/en/](http://www.who.int/reproductivehealth/publications/maternalperinatal_health/MSM_97_2/en/).
- 6 Yamauchi Y, Yamanouchi I. Breast-feeding frequency during the first 24 hours after birth in full term neonates. *Pediatrics.* 1990; 86(2): 171-5.
- 7 Keefe MR. Comparison of neonatal nighttime sleep-wake patterns in nursery versus rooming-in environments. *Nurs Res.* 1987; 36(3): 140-4.



- 8 Klaus MH, Jerauld R, Kreger NC, et al. Maternal attachment: Importance of the first postpartum days. *N Engl J Med.* 1972; 286(9): 460-3.
- 9 Norr KF, Roberts JE, Freese U. Early postpartum rooming-in and maternal attachment behaviors in a group of medically indigent primiparas. *J Nurse Midwifery.* 1989; 34(2): 85-91.
- 10 Prodromidis M, Field T, Arendt R, et al. Mothers touching newborns: A comparison of rooming-in versus minimal contact. *Birth.* 1995; 22(4): 196-200.
- 11 National Research Council and Institute of Medicine. *From Neurons to Neighborhoods: The Science of Early Childhood Development.* Committee on Integrating the Science of Early Childhood Development. Jack P. Shonkoff and Deborah A. Phillips, eds. Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press; 2000.
- 12 Victora CG, Benhague DP, Barros FC, et al. Pacifier use and short breastfeeding duration: Cause, consequence or coincidence? *Pediatrics.* 1997; 99(3): 445-53.
- 13 Barros FC, Victora CG, Semer TC, et al. Use of pacifiers is associated with decreased breastfeeding duration. *Pediatrics.* 1995; 95(4): 497-9.
- 14 Dewey KG, Nommsen-Rivers LA, Heinig MJ, et al. Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excess neonatal weight loss. *Pediatrics.* 2003; 112(3 Pt 1): 607-19.
- 15 Academy of Breastfeeding Medicine. ABM clinical protocol #5: Peripartum breastfeeding management for the healthy mother and infant at term. Revision, June 2008. *Breastfeed Med.* 2008; 3(2): 129-32.
- 16 Kramer MS, Barr RG, Dagenais S, et al. Pacifier use, early weaning, and cry/fuss behavior: A randomized controlled trial. *JAMA.* 2001; 286(3): 322-6.
- 17 Bennis MM. Are pacifiers associated with early weaning from the breast? *Adv Neonatal Care.* 2002; 2(5): 259-66.
- 18 Ulah S, Griffiths P. Does the use of pacifiers shorten breastfeeding duration in infants? *Br J Community Nurs.* 2003; 8(10): 458-63.
- 19 Taveras EM, Capra AM, Braveman PA, et al. Clinical support and psychosocial risk factors associated with breastfeeding continuation. *Pediatrics.* 2003; 112(1): 108-15.



## AIM 4: TIMELINESS

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### THE INSTITUTE OF MEDICINE'S "AIMS OF IMPROVEMENT" IN RELATION TO THE TEN STEPS

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#### ***The Ten Steps are:***

1. Have a written breastfeeding policy that is routinely communicated to all health-care staff.
2. Train all health-care staff in the skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within an hour of birth. Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour. Encourage mothers to recognize when their babies are ready to breastfeed and offer help if needed.
5. Show mothers how to breastfeed and how to maintain lactation, even when they are separated from their infants.
6. Give 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. Teach mothers cue-based feeding regardless of feeding method.
9. Give no artificial nipples or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital or clinic.

#### ***AIM 4: Timeliness***

Care should be accessed and delivered with minimal delay for both patients and staff. By increasing capacity and continuity of support, implementation of the *Ten Steps* results in fewer delays for families when accessing the help they need for recommended infant care.

1. A consistently communicated policy assures that appropriate support will be delivered throughout the patients' stay, and that continuity of care will be assured.
2. When all staff members are trained in practices that support routine breastfeeding, they can help

and guide new moms. This allows patients with routine concerns to have their needs met quickly and frees time to allow specialists (e.g., International Board Certified Lactation Consultants) to expeditiously help patients who need more intensive support. When staff members are uniformly trained, they will not have to spend time correcting misinformation or addressing preventable problems.

3. Accurate messages consistently delivered throughout the prenatal period—and continued into the perinatal and postpartum periods—reduce misinformation and confusion while increasing continuity and maternal confidence. Mothers who receive accurate information prenatally will enter your facility with a basic awareness about the types of information and care that they can expect. Informative, consistent, positive communication and education about breastfeeding helps new mothers avoid common, oftentimes time-consuming problems with infant feeding. As a result, health-care staff will spend less time and use fewer resources on infant feeding problems.
4. Early and continuous skin-to-skin contact allows the mother immediate and unlimited access to her newborn infant, and the baby gains access to the protections of the maternal environment. Promoting and preserving these practices reduces the need for clinical intervention.
5. Implementation of Step 5 ensures prevention and early detection of breastfeeding and lactation problems requiring care. Step 5 also allows for effective discharge and follow-up planning (See also Step 10), which improves timeliness and continuity of care.
6. Use of artificial feedings delays the response to an infant's early hunger cues. The feeding product and feeding system have to be obtained, distributed, and delivered. In addition, handling and preparation are required before the feeding. Exclusive breastfeeding ensures timely infant feeding, as long as mothers and infants stay together in continuous close proximity (e.g., rooming-in, Step 7) and mothers receive instruction on the principles of feeding on-demand (Step 8).
7. Since routine care during rooming-in occurs at the bedside, continuity of care is enhanced and families become better informed about how to care for their infants.<sup>1</sup> This also enhances timeliness because staff can simultaneously educate families while performing assessments and infant-care routines, and parents can receive immediate feedback on the care of their infant.
8. With demand-feeding:
  - Infants experience little or no delay in eating when they are hungry.
  - Infant weight gain is enhanced because babies feed when most prepared to eat effectively.
  - Mothers have less need to wait for staff assistance with feedings, as feedings are easier when they occur at times when infants are most ready and responsive to eating.
  - Mothers develop a full and abundant milk supply more quickly.
9. Pacifiers and artificial nipples should not be used to delay an infant's need to suckle at the breast. Establishing successful feeding and learning social interaction with the primary caregiver are critical to an infant's primary tasks of survival and growth.<sup>2</sup> Hospital staff often use pacifiers or artificial nipples to placate an infant who is demanding to be fed but is separated from the mother or to allow staff to prioritize other tasks over the infant's need to breastfeed. Routine use of pacifiers and artificial nipples interferes with demand-feeding and with the establishment of optimal milk supply. Timeliness for fulfillment of an infant's need to suckle can be facilitated by skin-to-skin contact and rooming-in.

10. Timeliness is not just a matter of convenience with postpartum breastfeeding support. Access to timely support can avert a range of problems, from unnecessary discomfort related to poor latch or engorgement to urgent medical conditions requiring immediate re-hospitalization. Timely support can also mean the difference between the establishment of an abundant milk supply and failed lactation. When facilities actively engage in developing postpartum breastfeeding support groups and services, they are better able to promote linkages between their patients and these services, increasing timely access to support.

### **Resources**

- 1 Janssen PA, Klein MC, Harris SJ, et al. Single room maternity care and client satisfaction. *Birth*. 2000; 27(4): 235-43.
- 2 Genna CW, ed. *Supporting Sucking Skills in Breastfeeding Infants*. Boston, MA: Jones and Bartlett, p. 97-129; 2008.



## AIM 5: EFFICIENCY

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5. Show mothers how to breastfeed and how to maintain lactation, even when they are separated from their infants.
6. Give 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. Teach mothers cue-based feeding regardless of feeding method.
9. Give no artificial nipples or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital or clinic.

#### **AIM 5: Efficiency**

Waste of resources, including space, supplies, technologies, human resources, human spirit, ideas, and capital should be avoided. A 2009 cost analysis prepared for the Texas Department of State Health Services concluded that overall expenditures for implementing the Ten Steps are nominal and lessen each year.<sup>1</sup> Meanwhile, savings and improved health outcomes continue to increase.

1. When all staff members are trained in and consistently adhere to the same evidence-based standards of care, they avoid cross-purpose efforts and reduce waste on many levels.



2. Families that receive consistent information and support from all caretakers have increased confidence in the hospital staff and in their ability to care for their newborns.
3. Accurate messages consistently delivered throughout the prenatal period—and continued into the perinatal and postpartum periods—reduce misinformation and confusion while increasing continuity and maternal confidence. Informative, consistent, positive communication and education about breastfeeding helps new mothers avoid common, often time-consuming problems with infant feeding. As a result, hospital staff spends less time and use fewer resources on infant feeding problems.
4. A single nurse can provide maternal and infant recovery care by monitoring the infant and the mother in the first hour(s) after birth. The nurse can perform routine care with the infant in skin-to-skin contact or at the bedside after the first breastfeeding and educate the parents at the same time. Eliminating transportation to and from a level-one nursery saves time, space, and technologies (e.g. warmers, probes, etc.).
5. Helping mothers and babies get a good start with breastfeeding is one of the best investments of time and effort made in the postpartum period. Basic breastfeeding routines, founded on evidence-based physiologic principles, prevent many problems. Accurate assessment, determination of lactation acuity, and an appropriate intensity of proactive support make patient and staff efforts more efficient and effective and best utilize technologies and supplies (e.g., nipple shields, bottles, nipples, formula, breast pumps, glucose monitoring, etc.). They also prevent or minimize the need for remedial treatments in mothers and babies such as restoration of skin integrity or wound care for sore or damaged nipples, treatment of pain or infection, phototherapy, or supplemental fluids.
6. Avoiding supplemental feedings for newborns and eliminating distribution of formula sample packs free up facility resources and reduces:
  - Staff time spent stocking, logging, maintaining, and distributing breastmilk substitutes and feeding supplies.
  - Expenditures on bottles, nipples, breastmilk substitutes, sterile water, and/or glucose water.
  - Space required for storage of formula, nipples, bottles, and discharge packs.
  - Amount of waste generated.
  - Conflicts of interest, ethical, and liability concerns related to accepting or distributing commercial discharge packs or other commercial marketing materials.
7. Rooming-in requires minimal costs and presents a significant opportunity for cost savings.<sup>2</sup> Among its many benefits, it:
  - Frees space, staff, and budget for equipment by eliminating the need for a traditional newborn nursery.
  - Improves workflow efficiency, as less time and effort are put into transporting infants to and from the nursery.
  - Allows families to be directly responsible for the care of their babies.
  - Reduces the amount of staff time needed for responding to hard-to-soothe infants and problems with hypothermia, hypoglycemia, jaundice, and excessive weight loss as well as in responding to mothers' breastfeeding concerns such as breast engorgement and nipple pain.
  - Shortens hospital stays, thus increasing bed space, and reduces the need for follow-up services.<sup>3</sup>

8. Despite the changes in traditions and routines needed to support an environment in which demand-feeding can occur, demand-feeding is more efficient than scheduled or restricted feeding for all of the reasons already mentioned. In addition:
  - Families can better address the infant's other needs.
  - Parents are empowered, in the hospital and after discharge, to attend to the routine needs of their infants.
9. Pacifier and artificial nipple use during the hospital stay results in these inefficiencies:
  - They require more storage space than other alternate feeding systems such as cups, syringes and tubing.
  - An excess of staff time is spent correcting disordered feeding that results from pacifier and artificial nipple use.
  - Interrupted or reduced breastfeeding increases the need for infant formula, which is costly to families (even when it is provided by formula manufacturers at no direct cost to the hospital), as are the potential health risks associated with its use.
10. Continuity of care, as well as effectiveness, is enhanced when support begins in the prenatal period and continues through the postpartum. Establishing communication and systems of referral and counter-referral among the different support programs available in a community also enhance the continuum of care. When patients know how to access care in a timely manner, problems are less severe and require fewer resources to resolve them.

### **References**

- 1 DelliFraine J, Langabeer J II, Williams JF, et al. Cost comparison of baby friendly and non-baby friendly hospitals in the United States. *Pediatrics*. 2011; 127(4): e989-94.
- 2 Levine RE, Huffman SL. *The Economic Value of Breastfeeding: The National Public Sector, Hospital and Household Levels*. A review of the literature. Washington, DC: Center to Prevent Childhood Malnutrition; 1990.
- 3 Taylor MR, O'Connor P. Resident parents and shorter hospital stay. *Arch Dis Child*. 1989; 64(2): 274-6.



## AIM 6: EQUITY

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8. Encourage breastfeeding on demand. Teach mothers cue-based feeding regardless of feeding method.
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10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital or clinic.

#### ***AIM 6: Equity***

Systems should strive to improve health equity by reducing disparities. When implemented fully, the *Ten Steps* greatly reduce racial and ethnic disparities in exclusive breastfeeding during the hospital stay. Texas Ten Step hospitals have higher exclusive breastfeeding rates and narrower disparity gaps than non-Texas Ten Step hospitals. This effect is even more pronounced in Texas Baby-Friendly Hospitals.

1. Establishing and clearly communicating policy sets an explicit standard for delivery of care. Consistently implementing the *Ten Steps* reduces disparities in outcomes.
2. Training prepares staff to sensitively address cultural beliefs, customs, and needs related to infant

feeding and newborn care. Disparities in breastfeeding outcomes lessen in facilities that implement the *Ten Steps*.

3. When all mothers have equal access to accurate, consistent infant feeding information and are supported in their infant feeding preferences, disparities in breastfeeding and poor health outcomes related to not breastfeeding decline.
4. When all mothers and infants have access to early and continuous skin-to-skin contact, they have an equal opportunity to establish strong foundations for attachment, feeding, and healthy outcomes.
5. Thorough assessment and individualized support for breastfeeding improves breastfeeding outcomes and helps all families receive equal access to the benefits of breastfeeding.
6. Promoting exclusive breastfeeding can help significantly to reduce disparities in health outcomes. Breastfeeding allows all infants access to the same quality of nutrition and immune protection, regardless of social and economic resources. Moreover, exclusive breastfeeding greatly reduces the risk for diseases and conditions disproportionately affecting low-income and minority populations.
7. All families, regardless of their socioeconomic characteristics or chosen infant feeding methods, should experience rooming-in. It is evidence-based, family-centered care that increases parental confidence, parental skills, and newborn safety. For breastfeeding families, rooming-in improves breastfeeding outcomes.
8. Demand-feeding should be the standard of care for all families, regardless of feeding type. It assures that feeding spacing, duration, and volume matches the infants' physiologic needs. Facilitating infants' self-regulation of appetite is a key strategy for establishing healthy patterns of eating and reducing the risk of obesity. Demand-feeding also promotes health equity by enabling more families to successfully establish breastfeeding with fewer complications. Along with the type of delivery and rooming-in, demand-feeding is a more important determinant of exclusive breastfeeding than sociodemographic parameters.<sup>1</sup> Poor previous breastfeeding experiences, perceptions that breastfeeding is too hard, and lack of confidence in their baby's ability to breastfeed are leading reasons that low-income Texans give for never initiating breastfeeding. Insufficient milk supply is the most common reason low-income Texas women report as a cause for early weaning.<sup>2</sup> Each of these determinants for sub-optimal breastfeeding can be addressed through education, promotion, and support of demand-feeding.
9. Socially disadvantaged groups appear to use pacifiers more frequently than other groups. Pacifier use is associated with increased morbidity and shorter breastfeeding duration, even when controlling for socioeconomic status.<sup>3</sup> Use of artificial nipples also reduces breastfeeding exclusivity and duration across socioeconomic groups. Through reduced risk for illness, higher levels of breastfeeding has the potential to equalize health status across the range of socioeconomic groups.<sup>4</sup>
10. Increasing access to relevant postpartum support is important for closing socioeconomic gaps in breastfeeding rates. Peer support, including mother-to-mother support groups and peer counseling,

can be individually tailored to address the diverse needs of populations in a culturally competent way. For example, peer counseling programs have been effective in a variety of settings to close gaps in breastfeeding duration and exclusivity in populations with breastfeeding disparities.<sup>5-11</sup>

## References

- 1 Pechlivani F, Vassilakou T, Sarafidou J, et al. Prevalence and determinants of exclusive breastfeeding during hospital stay in the area of Athens, Greece. *Acta Paediatr.* 2005; 94(7): 928-34.
- 2 Texas Department of State Health Services. *Breastfeeding Beliefs, Attitudes, and Practices in the Texas WIC Population: State and Regional Findings from the 2009 Infant Feeding Practices Survey.* Austin, TX: Division for Family and Community Health Services; 2010. Available by request from: tracy.erickson@hhsc.state.tx.us or julie.stagg@dshs.state.tx.us.
- 3 North K, Fleming P, Golding J, et al. Pacifier use and morbidity in the first six months of life. *Pediatrics.* 1999; 103(3): e34.
- 4 Texas Department of State Health Services. *WIC Nutrition African American Breastfeeding Promotion;* 2011. Available from: [www.dshs.state.tx.us/wichd/bf/african\\_americanbf.shtm](http://www.dshs.state.tx.us/wichd/bf/african_americanbf.shtm).
- 5 Chapman DJ, Damio G, Pérez-Escamilla R. Differential response to breastfeeding peer counseling within a low-income, predominantly Latina population. *J Hum Lact.* 2004; 20(4): 389-94.
- 6 Volpe E, Bear M. Enhancing breastfeeding initiation in adolescent mothers through the Breastfeeding Educated and Supported Teen (BEST) Club. *J Hum Lact.* 2000; 16: 196-200.
- 7 Caufield L, Gross S, Bentley M, et al. WIC-based interventions to promote breastfeeding among African-American women in Baltimore: Effects on breastfeeding initiation and continuation. *J Hum Lact.* 1998; 14(1): 15-22.
- 8 Kistin N, Abrahamson R, Dublin P. Effects of peer counselors on breastfeeding initiation, exclusivity, and duration among low-income urban women. *J Hum Lact.* 1994; 10(1): 11-5.
- 9 Hannula L, Kaunonen M, Tarkka MT. A systematic review of professional support interventions for breastfeeding. *J Clin Nurs.* 2008; 17(9): 1132-43.
- 10 Mitra AK, Houry AJ, Carothers C, et al. Evaluation of a comprehensive low-income support program among state Women, Infants and Children (WIC) program breastfeeding coordinators. *South Med J.* 2003; 96(2): 168-71.
- 11 Martens PJ. Increasing breastfeeding initiation and duration at a community level: An evaluation of Sagkeeng First Nation's community health nurse and peer counselor programs. *J Hum Lact.* 2002; 18(3): 236-46.





# RIGHT FROM THE START FACT SHEET

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## PROMOTION OF EXCLUSIVE BREASTFEEDING PROVIDES OPTIMAL CARE ACROSS COMMUNITIES

### ***Benefits for Hospitals***

- Evidence-based policies such as the WHO/UNICEF “Baby-Friendly” policies and the Texas Ten Step policies will help hospitals achieve high exclusive breastfeeding rates.
- Adoption of supportive policies will better position hospitals for reporting on exclusive breastmilk feeding during the newborn’s hospitalization rates at discharge, in adherence with the Joint Commission Perinatal Care Core Measure Set.
- Infants who are exclusively breastfed have improved short- and long-term health outcomes, with enhanced immunity and lower rates of infectious and chronic disease.
- Adopting evidence-based policies to support exclusive breastfeeding can be integrated into Quality Improvement efforts and can be an effective recruitment and marketing tool.
- Exclusive breastfeeding policies are evidence-based and provide the optimal care that hospitals strive to provide, improving the health of communities.

### ***Benefits for Baby***

- Human milk provides immune protection to help babies fight everyday infections such as influenza and to reduce the frequency and severity of several infectious diseases such as respiratory tract infections, ear infections, bacterial meningitis, pneumonia, urinary tract infections, and diarrhea.
- Breastfed infants are at a lower risk for sudden infant death syndrome, and infant mortality rates after the first month of life are reduced by up to 21 percent.
- Breastfed babies are less likely to suffer from childhood cancers such as Hodgkin’s disease and leukemia.
- Breastfeeding reduces the risk for obesity, high blood pressure, and high cholesterol levels later in life.
- Exclusive breastfeeding reduces risk for asthma, eczema, and for type 1 and type 2 diabetes.

### ***Benefits for High-Risk Infants***

- Breastmilk stimulates brainstem maturation in premature babies.
- Breastmilk protects against necrotizing enterocolitis and other diseases in neonates.
- High-risk infants who receive breastmilk have shorter stays in the neonatal intensive care unit and have lower rates of readmission.

### ***Benefits for Mom***

- Women who breastfeed have less bleeding and recover from birth more quickly.
- Breastfeeding from birth allows for an intensified bond between mom and baby.
- The longer a mother breastfeeds, the lower her risk is for long-term medical conditions such as ovarian cancer, breast cancer, and cardiovascular disease.
- Breastfeeding moms are less likely to develop type 2 diabetes.

## Sources

American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 2005;115:496-506. 7.

American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women and Committee on Obstetric Practice. Special report from ACOG. Breastfeeding: Maternal and infant aspects. *ACOG Clin Rev*. 2007;12(1)(suppl):1S-16S.

Chen A, Rogan WJ. Breastfeeding and the risk of postneonatal death in the United States. *Pediatrics*. 2004;113(5):e435-e439.

Gunderson EP, Jacobs DR, Chiang V, et al. Duration of lactation and incidence of the metabolic syndrome in women of reproductive age according to gestational diabetes mellitus status: A 20-year prospective study in CARDIA (Coronary artery risk development in young adults). *Diabetes*. Published online before print December, 2009. Available from: <http://diabetes.diabetesjournals.org/content/early/2009/11/12/db09-1197>.

Ip S, Chung M, Raman G, Chew P, Magula N, DeVine D, Trikalinos T, Lau J. *Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries*. Evidence Report/Technology Assessment No. 153 (Prepared by Tufts-New England Medical Center Evidence-based Practice Center, under Contract No. 290-02-0022). AHRQ Publication No. 07-E007. Rockville, MD: Agency for Healthcare Research and Quality. April 2007.

Schwarz EB, Ray RM, Stuebe AM, Allison MA, Ness RB, Freiberg MS, Cauley JA. Duration of lactation and risk factors for maternal cardiovascular disease. *Obstet Gynecol*. 2009;113(5):974-982.

Vohr BR, Poindexter BB, Dusick AM, McKinley LT, Higgins RD, Langer JC, Poole WK, for the National Institute of Child Health and Human Development. Persistent Beneficial Effects of Breastmilk Ingested in the Neonatal Intensive Care Unit on Outcomes of Extremely Low Birth Weight Infants at 30 Months of Age. (*Pediatrics*. 2007;120) e953-e959.



# HOSPITAL SELF-ASSESSMENT GUIDELINES

## TEN STEPS TOWARD EXCLUSIVE BREASTFEEDING PRACTICES

Evidence shows hospitals with policies supporting exclusive breastfeeding are realizing multiple benefits for patients, themselves, and the communities they serve. Take a few minutes to consider the practices that can help your hospital provide evidence-based, optimal care for your patients.

### ***Step 1: Encourage exclusive breastfeeding with a written hospital policy.***

- Review and maintain an up-to-date hospital policy that outlines the hospital's goals and steps toward supporting mothers to exclusively breastfeed.
- Communicate hospital breastfeeding policies to new and current staff.
- Inform the staff of the short-term and long-term advantages of exclusive breastfeeding. Refer to the enclosed resource list for free materials.

### ***Step 2: Remain up-to-date in training of exclusive breastfeeding practices.***

- Provide regular opportunities for hospital staff to attend trainings and workshops on current breastfeeding practices and medical advances. The Texas Department of State Health Services (DSHS) has a nationally recognized training program for health-care professionals that can be arranged onsite for free. In addition, staff can soon train for free at their own pace via the DSHS Online Breastfeeding Module. For all training and educational opportunities, please consult the enclosed resource list.
- Within six months of employment, maternity service staff should be trained and knowledgeable on breastfeeding management issues, communications skills used with breastfeeding mothers, and their importance to the success of exclusive breastfeeding duration. Knowledge and skill competencies should be updated annually with continuing education.
- Provide specialized training for staff members directly assisting new moms.

### ***Step 3: Support the mom's decision to breastfeed and inform all mothers of breastfeeding benefits.***

- Inform mothers during the prenatal period of the health benefits of exclusive breastfeeding to her and her infant. Materials that can be shared with patients are available at [www.dshs.state.tx.us/wichd/WICCatalog/contents.shtm](http://www.dshs.state.tx.us/wichd/WICCatalog/contents.shtm). Texas Ten Step-designated facilities may order these materials at no cost.
- Support mom in her decision to exclusively breastfeed by providing encouragement and organizing maternity care practices to provide the opportunity for the mother to do so successfully.

### ***Step 4: After birth, practices to encourage immediate breastfeeding are a top priority.***

- Place babies in uninterrupted and continuous skin-to-skin contact with their mothers immediately following birth for at least an hour.
- Encourage moms to recognize when their babies are ready to breastfeed.
- Provide support from skilled staff to offer help with breastfeeding if needed.

**Step 5: Encourage and support breastfeeding, including during separations.**

- If baby is separated from mom, offer an electric breast pump and provide instruction on expression of breastmilk and maintaining lactation. Teach all breastfeeding mothers how to manually hand express their milk.
- Encourage moms to attend prenatal classes, which provide expecting mothers with information to prepare them for normal breastfeeding as well as about lactation maintenance during temporary separation.
- If baby is unable to breastfeed for medical reasons, encourage and facilitate frequent and regular skin-to-skin contact.

**Step 6: Formula should be made available only when medically necessary or upon request.**

- Inform the parents of the risks of introducing infants to formula as a breastmilk substitute or supplement.
- Do not offer formula without medical indication. Fully inform mothers who request formula about the risks of its use for her and her infant's health.
- Remove promotional substitutes from the hospital supply. This includes formula, company-sponsored discharge bags, feeding brochures, nametags, etc. Please consult the resource list for alternative products.

**Step 7: Rooming-in should be encouraged.**

- Keep mom and baby close with supportive, 24-hour rooming-in practices throughout their postpartum stay.
- When experiencing resistance to keeping the newborn in the same room, explore the reasons with the patient and work together to find solutions that reduce separation.

**Step 8: Encourage breastfeeding on demand.**

- Encourage close and regular contact for moms and babies, regardless of feeding method.
- No limitations should be set on frequency or length of feeding.
- Teach moms how to recognize hunger cues and signs of sufficient feedings, such as wet and dirty diapers.
- Develop a nursing care plan to ensure that mothers are provided with adequate opportunities to rest, ensuring 24-hour rooming-in and demand breastfeeding.

**Step 9: Pacifiers and artificial nipples during the maternity stay should be discouraged.**

- Discourage the use of artificial nipples such as pacifiers or bottles.
- If supplementation is required, alternative supplemental feeding methods that supply baby with mom's milk should be considered first and highly encouraged.

**Step 10: Make community resources available to new moms.**

- Provide contact information for breastfeeding support and follow up after discharge.
- Implement support groups, telephone follow-up, in-home visits, and other practices to help support and encourage mothers to continue breastfeeding.
- Involve and educate key family members in supportive practices after hospital discharge.

This assessment is to serve as a self-reflection of the progress your hospital is making toward exclusive breastfeeding practices. Even one step in the direction of exclusive breastfeeding is a step toward healthier patients, practices, and communities.

Source: Texas Department of State Health Services. WIC Nutrition, Texas Breastfeeding Promotion Activities. [www.TexasTenStep.org](http://www.TexasTenStep.org)



# TEXAS WOMEN REPORT ON THEIR MATERNITY CARE EXPERIENCES

<b>Rationale</b> (adapted from 2009 CDC mPINC benchmark report)*		Reported practice experience, 2011 Texas WIC Infant Feeding Practices Survey ^	Ideal response indicating experience of recommended practice	Percent reporting experience of the recommended practice  (red indicates desired response was $\leq 70\%$ )*
Initial skin-to-skin contact	Skin-to-skin contact improves infant ability to establish breastfeeding. <sup>1</sup>	Baby placed skin-to-skin immediately after birth	Yes	53.7%
		Able to hold baby for 30 minutes or longer in the first hour after birth	Yes	60.0%
Initial breastfeeding opportunity	Early initiation of breastfeeding increases overall breastfeeding duration and reduces a mother's risk of delayed onset of milk production. <sup>2</sup>	Breastfed or attempted to breastfeed baby in first hour	Yes	49.1%
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>3,4</sup>	Received breastmilk at first feeding	Yes	65.1%
Supplementary feedings	The AAP and ACOG Guidelines for Perinatal Care <sup>5</sup> and Academy for Breastfeeding Medicine guidelines for supplementing feedings in healthy <sup>6</sup> and hypoglycemic <sup>7</sup> neonates all recommend against routine supplementation with formula, glucose water, or water.	Exclusively breastfed during entire hospital stay	Yes	30.0%
		For infants who received formula, formula was given to the mother or infant by staff without the mother's request	No	24.0%
Breastfeeding advice and counseling	Effective breastfeeding relies on feeding in direct response to specific infant cues rather than scheduled frequency or duration of feedings. <sup>8,9</sup>	Told how to recognize when baby is hungry	Yes	89.4%
		Told to breastfeed whenever the baby wanted	Yes	74.3%
		Told to limit length of breastfeeding sessions	No	32.3%

<b>Rationale</b> (adapted from 2009 CDC mPINC benchmark report)*		Reported practice experience, 2011 Texas WIC Infant Feeding Practices Survey^	Ideal response indicating experience of recommended practice	Percent reporting experience of the recommended practice  (red indicates desired response was ≤70%)*
Breastfeeding advice and counseling (continued)	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>10</sup> Patient education is important in order to establish breastfeeding. <sup>11,12</sup>	Assisted with breastfeeding	Yes	83.8%
Pacifier use	In-hospital pacifier use reduces duration of exclusive breastfeeding. <sup>13</sup> The AAP position statements on breastfeeding <sup>10</sup> and on sudden infant death syndrome (SIDS) <sup>14</sup> both recommend that pacifier use should be avoided until after breastfeeding is well established.	Baby given pacifier while in hospital	No	32.4%
Patient rooming-in	Rooming-in of mother-infant pairs increases infants' opportunities to learn to breastfeed <sup>15</sup> and increases duration and quality of maternal sleep. <sup>16</sup>	Baby spent one or more nights out of room	No	63.8%
		Roomed-in throughout hospital stay	Yes	50.4%
Assurance of ambulatory breastfeeding support-referral (note: mother's experience of physical contact and of active reaching out were not assessed)	Ensuring post discharge ambulatory support improves breastfeeding outcomes. <sup>17,18</sup>	Mother given phone number for follow-up support	Yes	69.1%
Distribution of "discharge packs" containing infant formula	The AAP and ACOG recommend against distributing infant formula "discharge packs" <sup>5,19</sup> because it reduces exclusive breastfeeding rates and implies health care professional endorsement of specific commercial items. <sup>20-22</sup>	Received formula marketing "discharge bag"	No	22.0%



\*Centers for Disease Control and Prevention. Division of Nutrition, Physical Activity, and Obesity,  
National Center for Chronic Disease Prevention and Health Promotion.  
2009 National Survey of Maternity Care Practices  
in Infant Nutrition and Care Sample Benchmark Report. March, 2011.

^Texas Department of State Health Services.

Office of Program Decision Support. Texas WIC Infant Feeding Practices Survey. 2011.

The Texas 2011 WIC Infant Feeding Practices Survey was administered by the Texas Department of State Health Services with new mothers participating in the Texas Special Supplemental Nutrition Program for Women, Infants and Children (WIC). The survey examined factors associated with a mother reporting she did not breastfeed as long as she wanted to.

The prevalence of breastfeeding initiation for the sample population was 81.5 percent. More than half of the respondents (54.6 percent) who breastfed said they did not breastfeed for as long as they wanted. Hispanics were most likely, and whites were least likely to meet their personal breastfeeding goals. However, women who reported experiencing Ten Step maternity care practices were more likely to report that they were able to meet their personal breastfeeding goals, even when adjusting for other factors.

### ***Maternity Care Experiences***

Although the majority of respondents who initiated breastfeeding reported experiencing certain practices known to be supportive of breastfeeding, more than half said they did not experience evidence-based care practices such as breastfeeding in the first hour postpartum, breastfeeding exclusively during the hospital stay, avoiding the use of pacifiers, and avoiding the marketing of infant formula by facility staff.

### **References**

- 1 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.
- 2 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):607-19.
- 3 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.
- 4 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.
- 5 American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Care of the neonate. In: Lockwood CJ, Lemons JA, eds. *Guidelines for Perinatal Care*. 6th ed. Elk Grove Village, IL: American Academy of Pediatrics;2007:205-49.
- 6 The Academy of Breastfeeding Medicine Protocol Committee. Model Breastfeeding Policy. *Breastfeeding Medicine* 2007; 2(1):50-5.
- 7 The Academy of Breastfeeding Medicine Protocol Committee. Guidelines for Glucose Monitoring and Treatment of Hypoglycemia in Breastfed Neonates. *Breastfeeding Medicine* 2006; 1(3):178-84.
- 8 Riordan J. *Breastfeeding and Human Lactation*. Third ed. Sudbury, MA: Jones and Bartlett, 2005.
- 9 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.

- 10 American Academy of Pediatrics Section on Breastfeeding. Policy Statement: Breastfeeding and the use of human milk. *Pediatrics* 2012; 129(3):e827-41.
- 11 US Preventive Services Task Force. Behavioral interventions to promote breastfeeding: Recommendations and rationale. *Annals of Family Medicine* 2003; 1(2):79-80.
- 12 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):1064-70.
- 13 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):511-8.
- 14 American Academy of Pediatrics.Task Force on Sudden Infant Death Syndrome, Moon RY. Policy Statement: SIDS and other sleep-related infant deaths: expansion of recommendations for a safe infant sleeping environment. *Pediatrics*. 2011 Nov;128(5):1030-9.
- 15 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):217-20.
- 16 Keefe MR. The impact of infant rooming-in on maternal sleep at night. *J Obstet Gynecol Neonatal Nurs* 1988; 17(2):122-6.
- 17 Ingram J, Rosser J, Jackson D. Breastfeeding peer supporters and a community support group: evaluating their effectiveness. *Matern Child Nutr*. 2005; 1(2):111-8.
- 18 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):389-96.
- 19 Committee on Healthcare for Underserved Women, Committee on Obstetric Practice. ACOG Committee Opinion No. 361: Breastfeeding: Maternal and Infant Aspects. *Obstet Gynecol* 2007 109: 479-80.
- 20 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):90-7.
- 21 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.
- 22 Taveras EM, Li R, Grummer-Strawn L et al. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. *Pediatrics* 2004; 113(4):e283-90.



# WIC & HOSPITALS: PARTNERING TO IMPROVE BREASTFEEDING OUTCOMES FOR BABIES AND MOTHERS

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The Women, Infants and Children (WIC) nutrition program serves low-income women and children who are nutritionally at risk. For more than 30 years, WIC has enabled pregnant women, new mothers, and young children access nutritious foods, nutrition education, and the opportunity to stay healthy. The program serves about 56 percent of all infants born in Texas and is free to those who qualify.

## ***Individuals Eligible for WIC***

- Pregnant women (through pregnancy and up to six weeks after birth or after pregnancy ends)
- Breastfeeding women (up to the infant's first birthday)
- Non-breastfeeding postpartum women (up to six months after the birth of an infant or after pregnancy ends)
- Infants (up to their first birthday)
- Children (up to their fifth birthday)

## ***WIC Benefits***

- Helpful nutrition information for mothers and families
- Breastfeeding education, assistance, and breast pumps
- Supplemental nutritious foods
- Screenings and referrals to other health and medical services
- Immunizations at some WIC clinics
- Referrals to social services
- Nutrition education and counseling at WIC clinics
- Follow-up support through peer counselors

## ***The Health Advantages of Exclusive Breastfeeding: A WIC Focus***

All WIC staff complete breastfeeding training. WIC's prenatal breastfeeding education emphasizes the importance of exclusive breastfeeding for six months. Exclusive breastfeeding provides numerous physiological and psychological benefits for babies and new moms. It protects babies against infection and illnesses, lowers their risk for several chronic diseases, promotes mother/baby bonding, and reduces mothers' risks for certain chronic diseases.

WIC clients learn prenatally about maternity practices that best support exclusive breastfeeding. However, WIC surveys show that many WIC moms encounter practices that are unsupportive of exclusive breastfeeding and that can result in early weaning.

*“Early breastfeeding has a critical period during which frequent nipple stimulation and milk removal are necessary for plentiful milk supply in later weeks.”*

—|AN RIORDAN, AUTHOR OF BREASTFEEDING AND HUMAN LACTATION

The 2011 Texas WIC Infant Feeding Practices Survey questioned almost 9,700 mothers across Texas who received WIC services during the first year of their infants' lives. Among respondents who initiated breastfeeding:

- 50.9 percent did **not** breastfeed their babies within the first hour after birth.
- Only 30 percent breastfed exclusively during their hospital stay.
- 78 percent of breastfeeding mothers reported they received a discharge bag containing formula from the hospital.

### ***How Your Hospital Can Help Improve Breastfeeding Outcomes***

The babies and mothers served by WIC need your help. Receiving consistent, evidence-based breastfeeding information starts in the WIC clinic prenatally and should continue through labor, delivery, and post discharge. Collaborating with your local WIC agency provides a unified message and creates a strong system of support for breastfeeding across all settings. The more Ten Steps to Successful Breastfeeding practices that your facility adopts and implements, the likelier WIC clients are to successfully establish breastfeeding and continue to breastfeed, thereby maximizing the health benefits for both mom and baby. Breastfeeding resource staff members in your local WIC agency are available to work with your facility to meet the needs of the WIC breastfeeding mother. For more information on the Texas Ten Step Program, please contact [texastenstep@dshs.state.tx.us](mailto:texastenstep@dshs.state.tx.us). To contact your local WIC agency staff for assistance in your area, visit: [txhealth.ziplocator.com](http://txhealth.ziplocator.com).



# RIGHT FROM THE START RESOURCE LIST

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This list of resources provides information to assist health professionals who want to move their hospitals closer to recommended maternity practices.

## ***Breastfeeding Policies and Practices: Introduction and Assessments***

**SELF-ASSESSMENT GUIDE** ♦ [WWW.TEXASTENSTEP.ORG](http://WWW.TEXASTENSTEP.ORG)

The Texas Department of State Health Services (DSHS) offers a brief self-assessment guide describing various hospital practices supportive of exclusive breastfeeding.

### **HOSPITAL-SPECIFIC DATA**

DSHS has collected data demonstrating each hospital's exclusive breastfeeding rate. This information is not public and is shared privately with individual hospitals. Regional and state-level data are also available.

For questions about your hospital's data received with this report, please email the State Breastfeeding Coordinator at [julie.stagg@dshs.state.tx.us](mailto:julie.stagg@dshs.state.tx.us).

## ***Breastfeeding Policy Programs and Initiatives***

**TEXAS TEN STEP PROGRAM** ♦ [WWW.TEXASTENSTEP.ORG](http://WWW.TEXASTENSTEP.ORG)

The Texas Hospital Association and DSHS developed this program in an effort to improve the health of Texas mothers and infants by promoting exclusive breastfeeding.

**BABY-FRIENDLY HOSPITAL INITIATIVE** ♦ [WWW.BABYFRIENDLYUSA.ORG](http://WWW.BABYFRIENDLYUSA.ORG)

This global program sponsored by the World Health Organization and UNICEF encourages and recognizes hospitals and birthing centers that offer an optimal level of care for lactation.

**GROWING COMMUNITY: BREASTFEEDING VIDEO** ♦ [WWW.DSHS.STATE.TX.US/OBESITY/GROWINGCOMMUNITY.SHTM](http://WWW.DSHS.STATE.TX.US/OBESITY/GROWINGCOMMUNITY.SHTM)

View an inspirational video to see how breastfeeding is flourishing in El Paso, thanks to a local hospital and the Baby Café.

## ***Staff Education and Training***

**BREASTFEEDING TRAININGS FOR HEALTH PROFESSIONALS** ♦ [WWW.DSHS.STATE.TX.US/WICHD/LACTATE/COURSES.SHTM](http://WWW.DSHS.STATE.TX.US/WICHD/LACTATE/COURSES.SHTM)

Information includes training descriptions, a schedule, and how to register for courses such as Principles of Lactation Management, Lactation Counseling and Problem Solving, Evidence-Based Lactation Management, Mini Breastfeeding, Management Program I, Breastfeeding the Compromised Infant, Managing Breastfeeding Complications, Physician's Breastfeeding Course, and Peer Counselor Trainer Workshop.

**TEXAS HEALTH STEPS PROVIDER BREASTFEEDING MODULE** ♦ [WWW.TXHEALTHSTEPS.COM/CMS/?Q=CATALOG/COURSE/1870](http://WWW.TXHEALTHSTEPS.COM/CMS/?Q=CATALOG/COURSE/1870)

A free one-hour breastfeeding Continuing Education module for health-care professionals is available on the Texas Health Steps Online Provider Education portal.

**TEXAS DEPARTMENT OF STATE HEALTH SERVICES' BREASTFEEDING TRAINING MODULE**  
**[WWW.DSHS.STATE.TX.US/WICHD/LACTATE/COURSES.SHTM](http://WWW.DSHS.STATE.TX.US/WICHD/LACTATE/COURSES.SHTM) (COMING SOON!)**

The breastfeeding training module will be available at no cost, and lessons can be completed at an individual pace. This interactive module goes through an extensive breastfeeding curriculum and will offer continuing education units.

***Continuing Support for Breastfeeding***

**VIDEOS (AVAILABLE FOR ONLY COST OF REPRODUCTION) ♦ [WWW.DSHS.STATE.TX.US/WICHD/BF/VIDEOS.SHTM](http://WWW.DSHS.STATE.TX.US/WICHD/BF/VIDEOS.SHTM)**

Videos cover a variety of topics and are designed to educate patients but can also be used to help train hospital staff. All are available for the cost of reproduction, shipping, and handling. Examples: Pumping Breast Milk for Your Premature Infant, To Baby With Love/The Comfortable Latch, etc.

**HEALTH PROFESSIONAL TOOLS**

**[TEXASWIC.DSHS.STATE.TX.US/WICLESSONS/ENGLISH/HEALTHCARE/WIC-BREASTFEEDING-PROMOTION-AND-SUPPORT.ASP](http://TEXASWIC.DSHS.STATE.TX.US/WICLESSONS/ENGLISH/HEALTHCARE/WIC-BREASTFEEDING-PROMOTION-AND-SUPPORT.ASP)**

Helpful information for health-care professionals, including diagnosis codes often used in lactation counseling.

**HEALTH-CARE PROVIDER'S GUIDE TO BREASTFEEDING IPHONE APPLICATION**

**[TEXASTENSTEP.ORG/TOOLS-AND-RESOURCES/HEALTH-CARE-GUIDE-TO-BREASTFEEDING/](http://TEXASTENSTEP.ORG/TOOLS-AND-RESOURCES/HEALTH-CARE-GUIDE-TO-BREASTFEEDING/)**

This application puts evidenced-based protocols and recommendations for lactation management at your fingertips. The application includes guidance on lactation assessment, drug interactions and treatment of common maternal and infant conditions, as well as resources for training staff and improving hospital maternity care practices. Reference citations are included for all content.

**BREASTFEEDING BROCHURES AND POSTERS ♦ [WWW.DSHS.STATE.TX.US/WICHD/WICCATALOG/CONTENTS.SHTM](http://WWW.DSHS.STATE.TX.US/WICHD/WICCATALOG/CONTENTS.SHTM)**

Science-based, commercial-free forms, literature and other resources may be downloaded for use in facility breastfeeding support efforts. Print copies of these resources may be ordered at no cost by Texas Ten Step-designated facilities.

**ALTERNATIVE-TO-FORMULA MARKETING MATERIALS: BAN THE BAG TOOLKIT ♦ [BANTHEBAGS.ORG/CATEGORY/TOOL-KIT](http://BANTHEBAGS.ORG/CATEGORY/TOOL-KIT)**

Ban the Bag is a national campaign offering alternatives to formula-marketing materials for hospitals. This toolkit provides background information, supporting data, educational materials, and alternative marketing resources.

**STATEWIDE LACTATION SUPPORT HOTLINES ♦ [WWW.DSHS.STATE.TX.US/WICHD/BF/HOTLINE.SHTM](http://WWW.DSHS.STATE.TX.US/WICHD/BF/HOTLINE.SHTM)**

These breastfeeding information and referral call lines are available to anyone in Texas.

**TEXAS BREASTFEEDING COALITION ♦ [WWW.TXBFCOALITION.ORG](http://WWW.TXBFCOALITION.ORG)**

A consortium of breastfeeding promotion groups, organizations, and individuals from across the state. Through the website, visitors can locate a local coalition and find information about local breastfeeding resources and support.

**LA LECHE LEAGUE ♦ [WWW.LLLI.ORG//WEB/TEXAS.HTML](http://WWW.LLLI.ORG//WEB/TEXAS.HTML)**

An international, nonprofit, nonsectarian organization dedicated to providing education, information, support, and encouragement to women who want to breastfeed. Health-care professionals can refer their clients to a local chapter for breastfeeding support and can seek out continuing education opportunities and research.

