The State of Maternity Practices in the U.S.: Are Hospitals Supporting Breastfeeding

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Coalition for Improving Maternity Services
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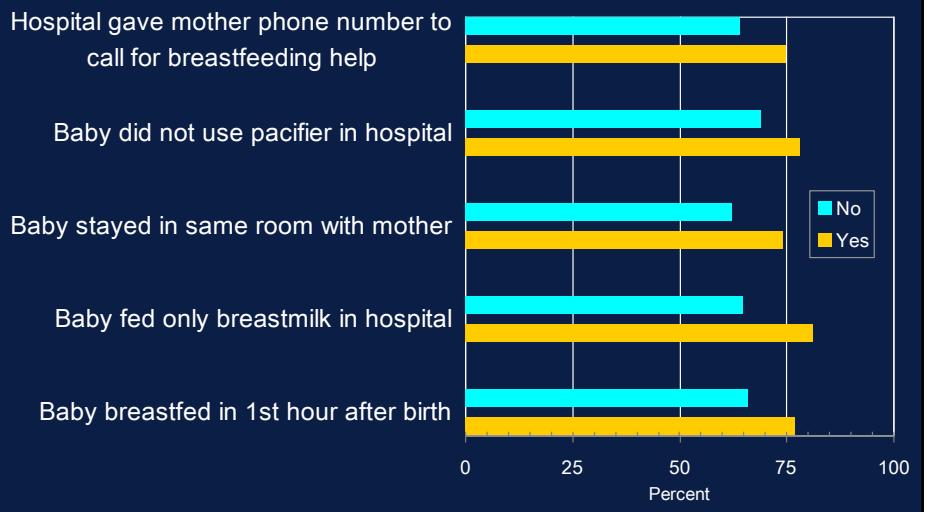
Hospital practices are associated with breastfeeding continuation at 8 weeks



Source: *Murray et al., 2007*

Evidence from PRAMS

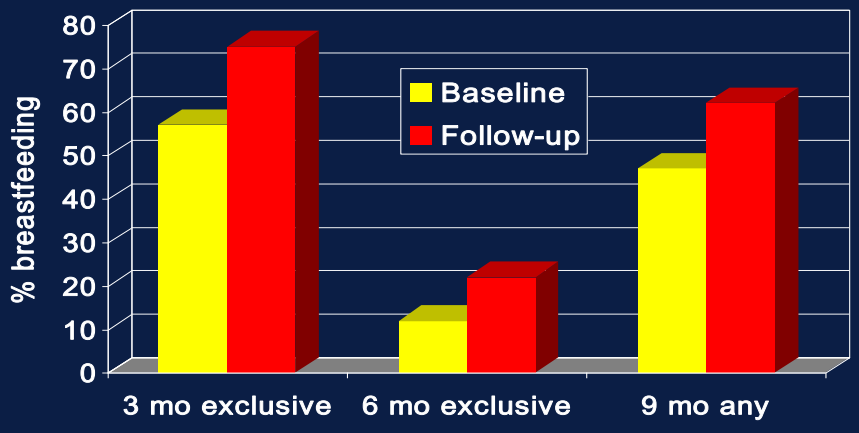
- Breastfeeding mothers in Oregon given commercial hospital discharge packs were 39% more likely to supplement before 10 weeks of age.

Hospital practice change affects breastfeeding months later

In-hospital Behaviors	Baseline	Follow-up
Breastfeeds/24 hr on day 2	4.3 feeds	6.4 feeds
Supplementary feeds/24 h on day 2	4.8 feeds	1.1 feeds
Volume of breast milk on day 2 (ml)	47 ml	132 ml
Volume of supplement on day 2 (ml)	188 ml	23 ml
Supplementing on day 2	100%	2%
Total volume supplement consumed days 1-3	565 ml	68 ml
Night-time breastfeeding	2%	98%

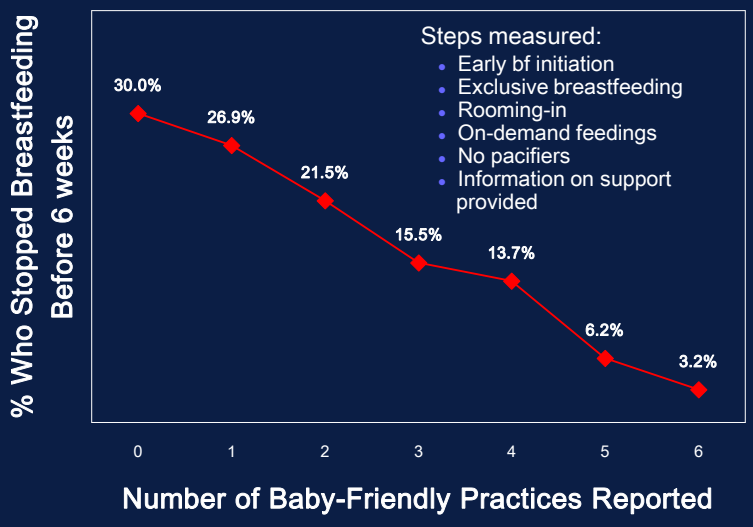
Source: *Nylander, et al.* 1991

Hospital practice change affects breastfeeding months later



Source: *Nylander, et al.* 1991

Number of *Baby Friendly* steps in place predicts risk of breastfeeding cessation



Source: *DiGirolamo et al., 2008*

maternity Practices in Infant Nutrition and Care

Survey design

Basic design

Biannual national census of facilities routinely providing maternity services

- Census design allows data to be utilized for advocacy and practice change at state & facility level
- Single key informant
- Anonymity needed to encourage response & honesty
- Assess 'usual practice' including, but not limited to, practices in WHO/UNICEF Ten Steps
- Representation of practices at all different types of facilities in the US

Implementation

- August – December 2007
- Key informant identified by phone call describing survey
- Completed online or by mail
- Total of 52 questions
  - Numeric responses
  - Checklists
  - Likert scale (e.g. Few, Some, Many, Most)

mPINC Dimensions

- Labor and delivery care
- Postpartum care
  - Feeding of breastfed infants
  - Breastfeeding assistance
  - Contact between mother and infant
- Discharge care
- Staff training
- Structural and organizational aspects of care delivery

Scoring

- 36 questions categorized into the 7 maternity practice dimensions
- Points assigned to responses to every question on scale of 0-100
- Dimension scores: average of points for each item in the dimension
- Composite quality scores: average of dimension scores

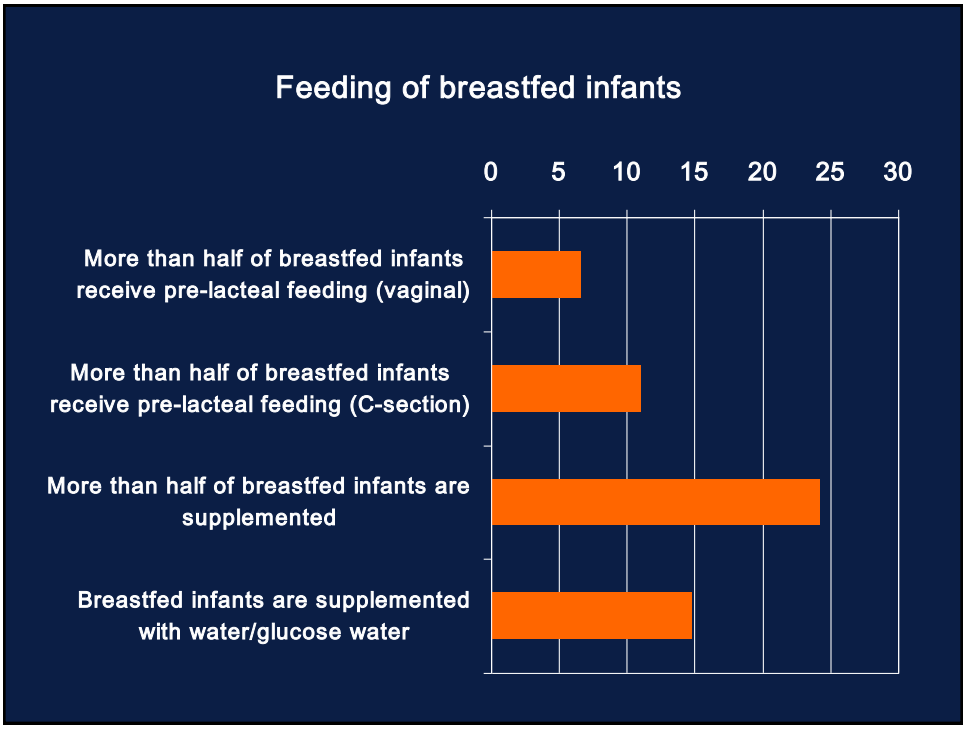
Results

Labor and delivery care

Labor and delivery care

- Average score: 60
- Score worsens with hospital size
- Score is inversely correlated with c-section rate and epidural rate
- Key problem is limitations on skin-to-skin contact

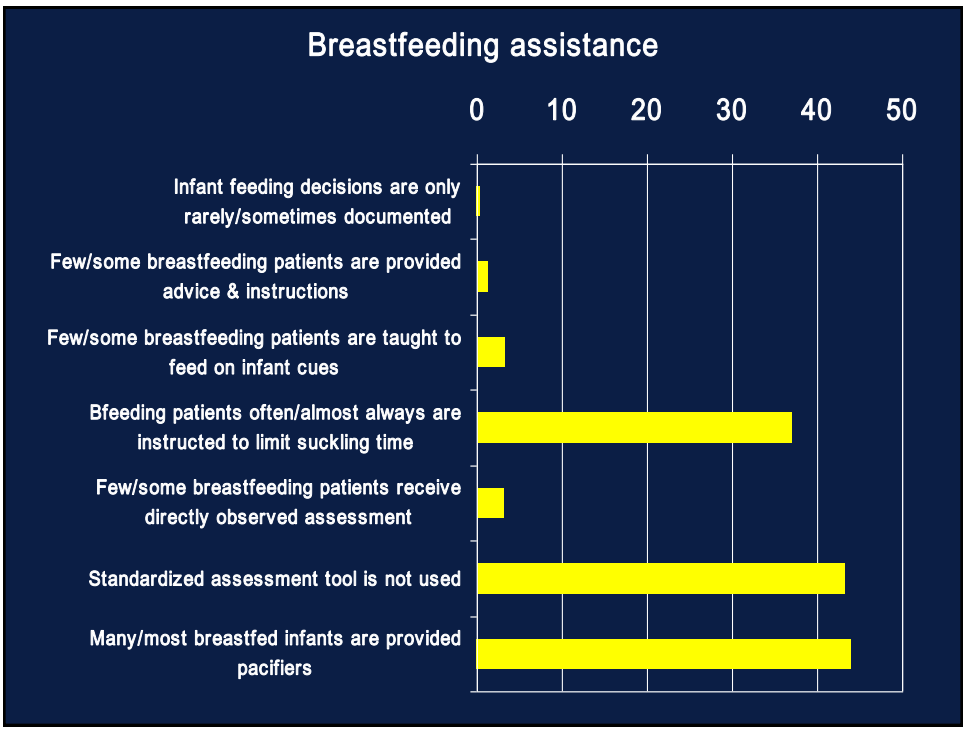
Feeding of breastfed infants



Feeding of breastfed infants

- Average score: 77
- Scores unrelated to hospital size or intervention rates
- Key problem is excessive supplementation of breastfed infants

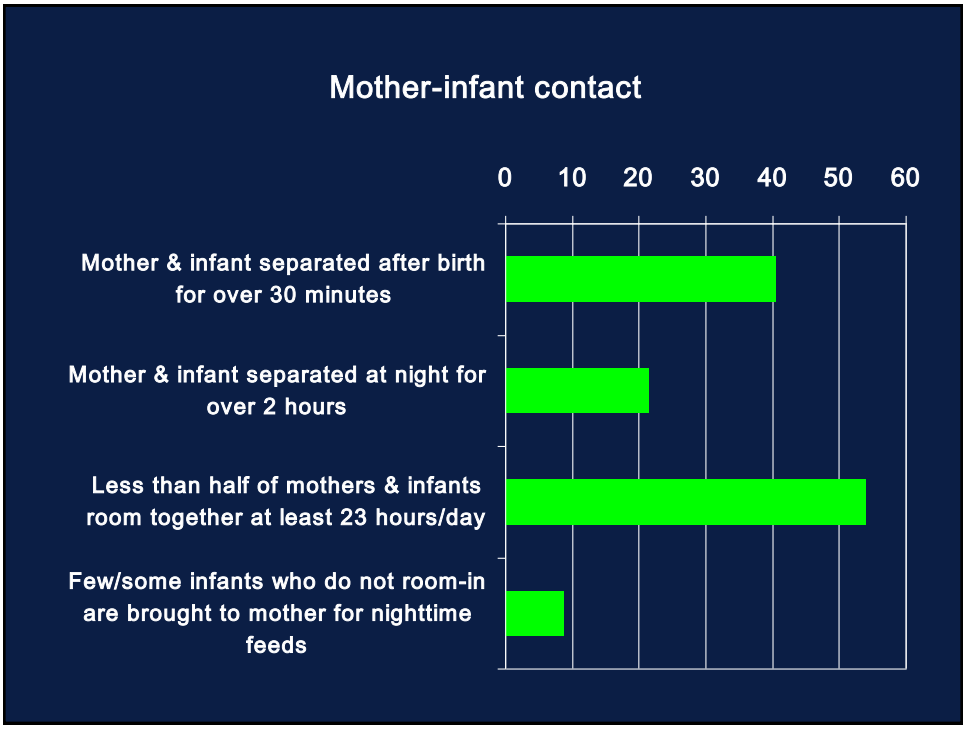
Breastfeeding assistance

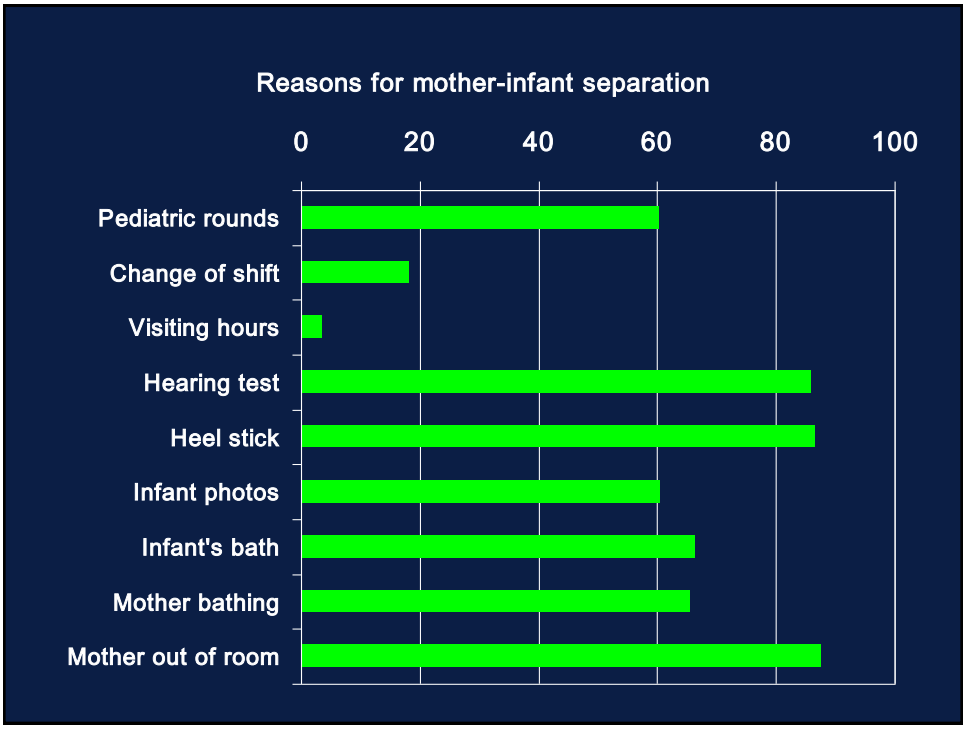


Breastfeeding assistance

- Average score: 80
- Scores largely unrelated to hospital size or intervention rates
- Instruction on breastfeeding is ubiquitous
- Problems with pacifiers, limitation of length of time breastfeeding, and non-use of standard assessment tools

Mother-infant contact

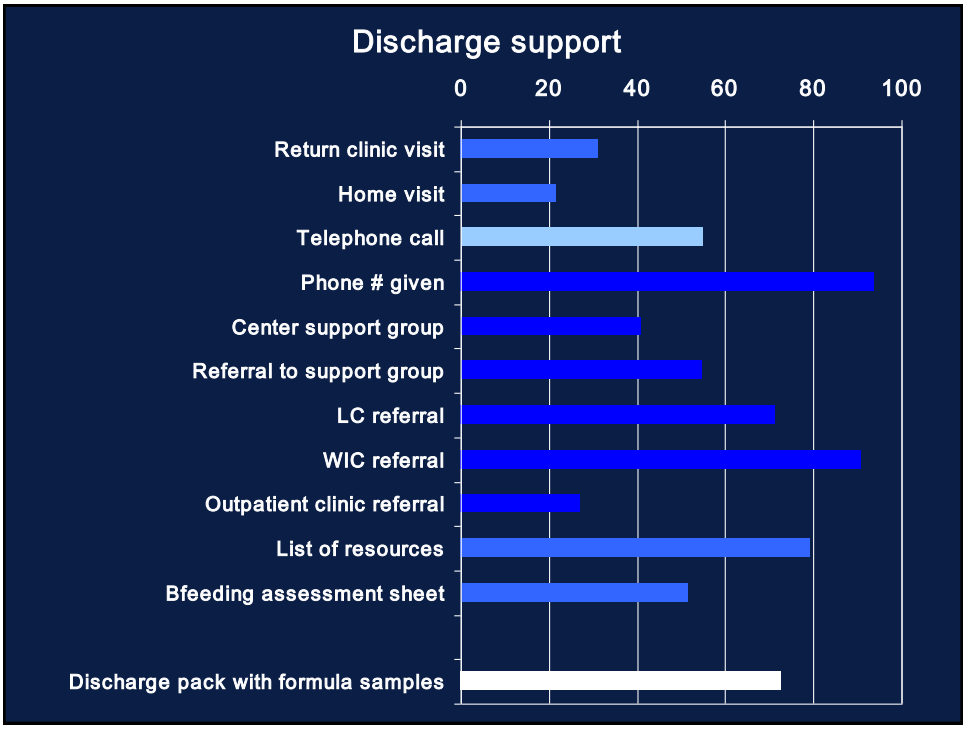

Mother-infant contact
0
10
20
30
40
50
60
Mother & infant separated after birth for over 30 minutes
Mother & infant separated at night for over 2 hours
Less than half of mothers & infants room together at least 23 hours/day
Few/some infants who do not room-in are brought to mother for nighttime feeds


Reasons for mother-infant separation
0
20
40
60
80
100
Pediatric rounds
Change of shift
Visiting hours
Hearing test
Heel stick
Infant photos
Infant's bath
Mother bathing
Mother out of room

Mother/infant contact

- Average score: 70
- Score worsens with hospital size
- Score is inversely correlated with c-section rate and epidural rate
- Key problem is the numerous reasons for separation of mother and infant

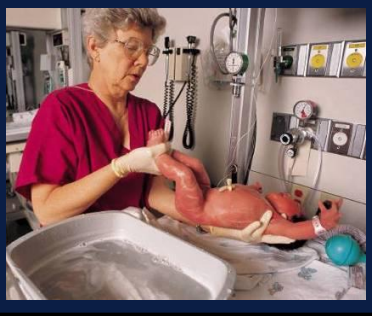
Discharge support



Discharge support

- Average score: 40
- Smallest facilities (<250 births/year) have better scores but otherwise unrelated to hospital size
- Score is inversely correlated with c-section rate and epidural rate
- Most hospitals distribute free formula marketing samples and provide no follow-up care

Staff training

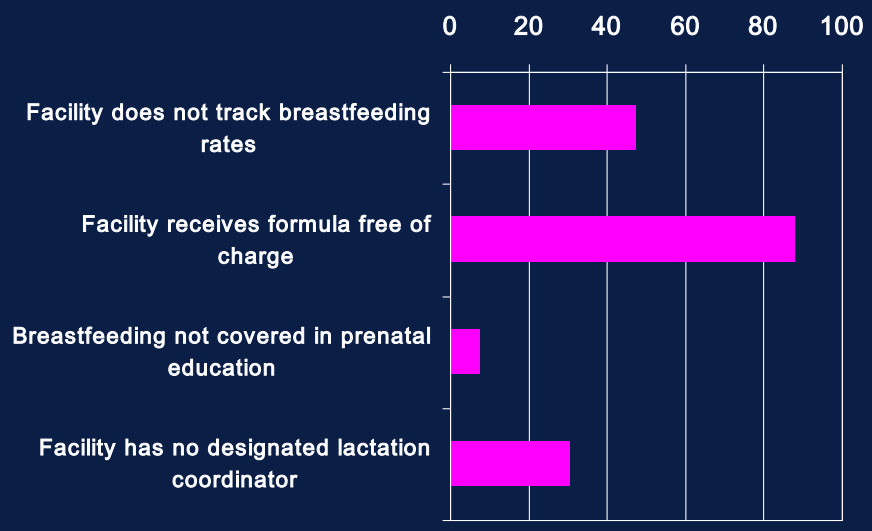


Staff training

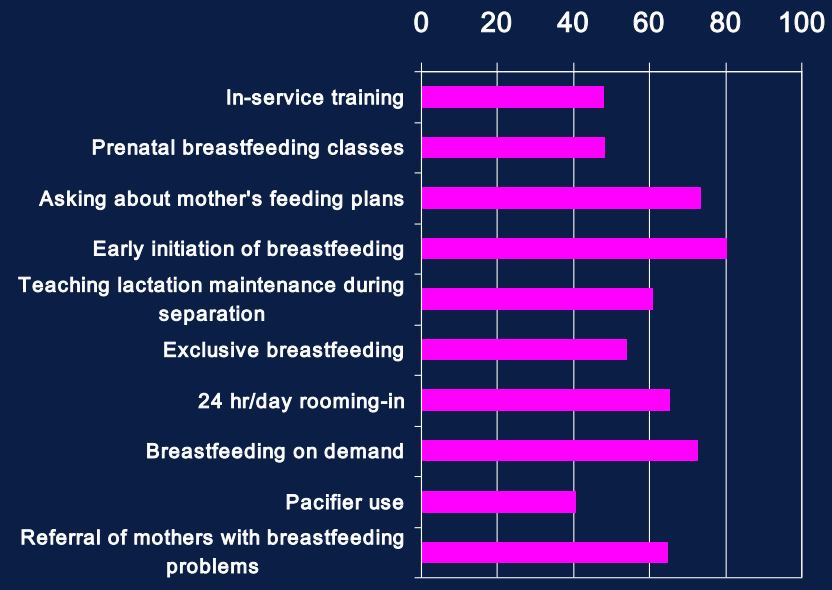
- Average score: 51
- Score improves with hospital size
- Score is unrelated to c-section rate and epidural rate
- Key problem is that while majority of staff are trained, amount of training is limited

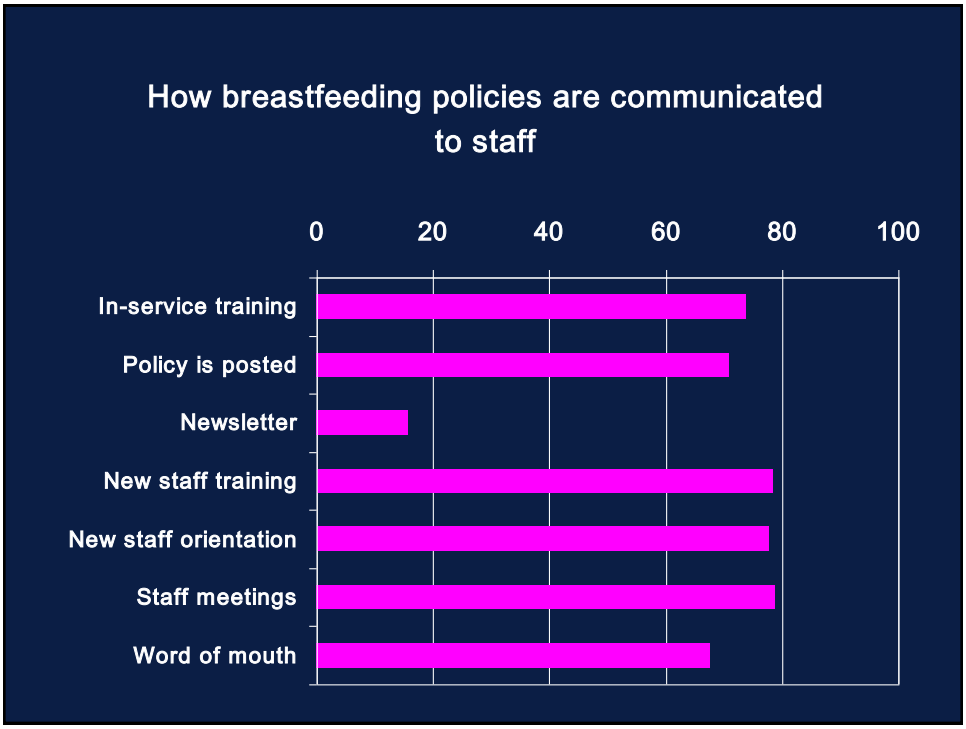
Structural and organizational aspects of care delivery

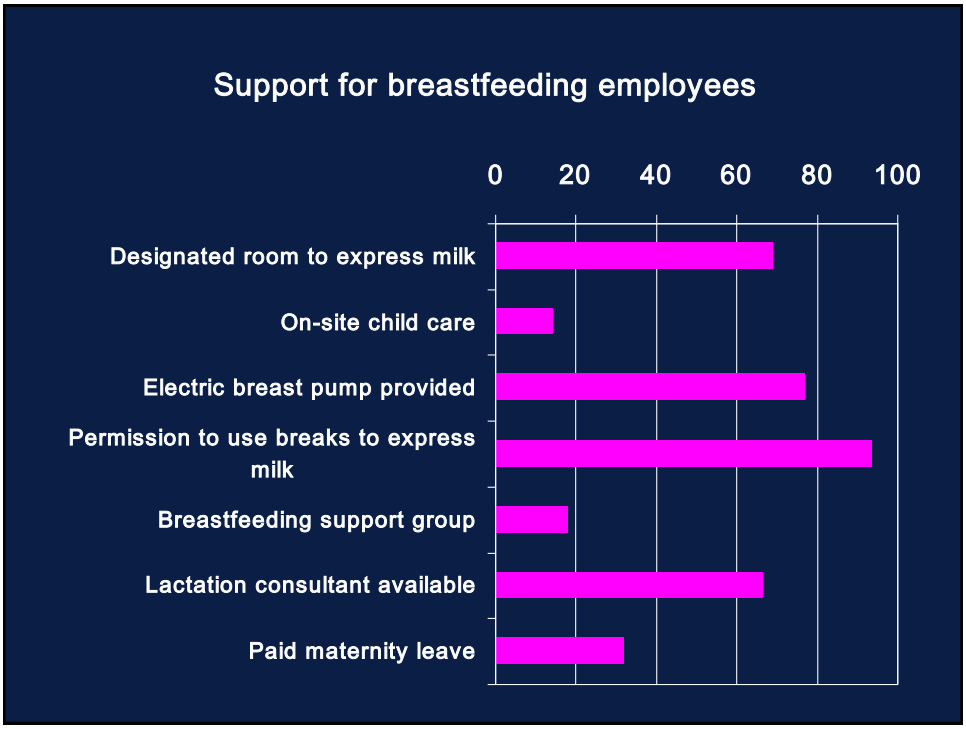
Structural/organizational aspects



Components of hospital policies on breastfeeding



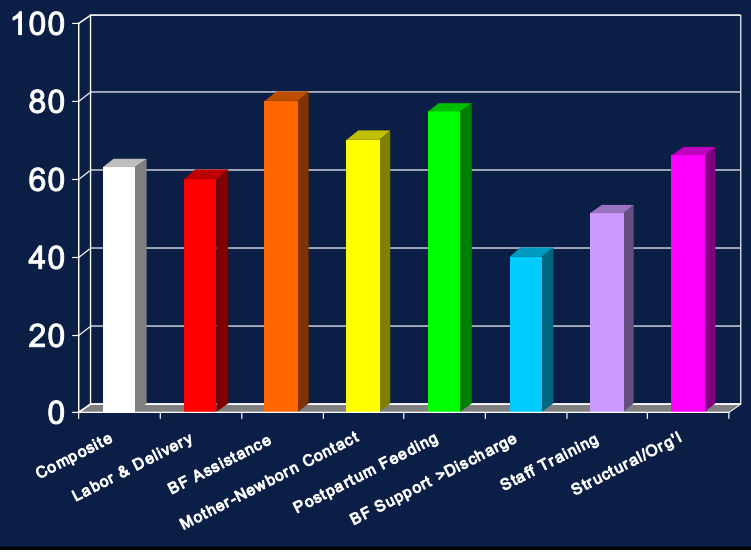

How breastfeeding policies are communicated to staff
0
20
40
60
80
100
In-service training
Policy is posted
Newsletter
New staff training
New staff orientation
Staff meetings
Word of mouth


Support for breastfeeding employees
0
20
40
60
80
100
Designated room to express milk
On-site child care
Electric breast pump provided
Permission to use breaks to express milk
Breastfeeding support group
Lactation consultant available
Paid maternity leave

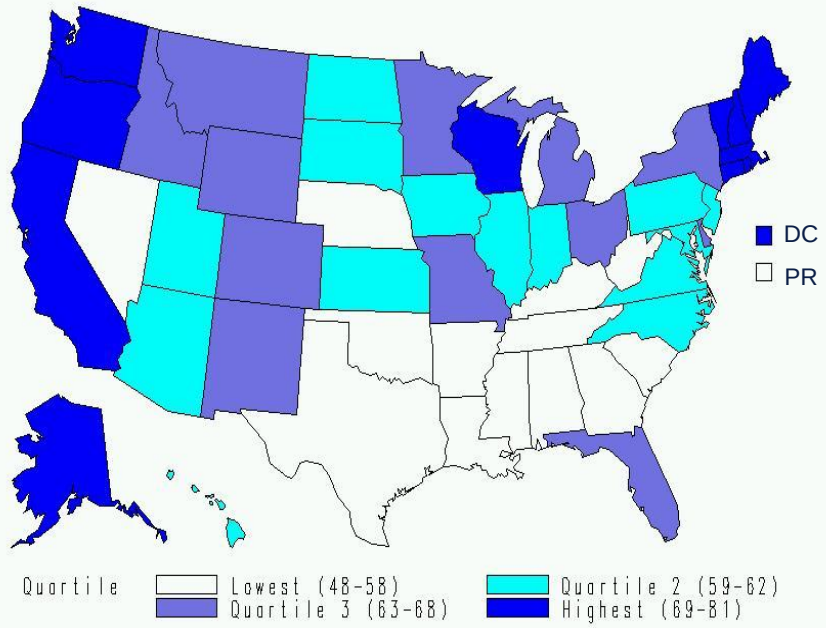
Structural and Organizational Aspects of Care Delivery

- Average score: 51
- Score improves with hospital size
- Score is unrelated to c-section rate and epidural rate
- Policies on breastfeeding only cover some of the recommended areas
- General environment is luke-warm to breastfeeding

National Mean Composite Quality Scores and Dimension Subscores



State Mean Composite Quality Scores (Quartiles), 200



Results - Summary

- Birth centers have higher scores
- Overall, larger facilities do better on staff training and structural issues but worse on labor/delivery care and mother/infant contact
- Facilities with higher c-section and epidural rates generally do worse
- Western and New England states do the best, Southern states do the worst

Key areas of concern

- Significant supplementation of breastfed infants
- Numerous reasons for separation of mother and infant
- Limited staff training
- Widespread distribution of formula marketing samples
- Post discharge support is primarily passive (information)

Benchmark Reports

Benchmark Reports

- Mailed individually to people at each respondent hospital
- Multipurpose document
  - Intervention strategy
    - Raise awareness
    - Provide motivators for change
    - Identify barriers
  - Customized, detailed survey information

Customized, detailed survey information

- Composite Quality Practice Score
  - Subscores for each dimension
  - Composite and Subscore Percentile
    - National
    - State
    - Comparable size
  - For each item:
    - Measure, rationale, explanation, ideal response, actual response, score

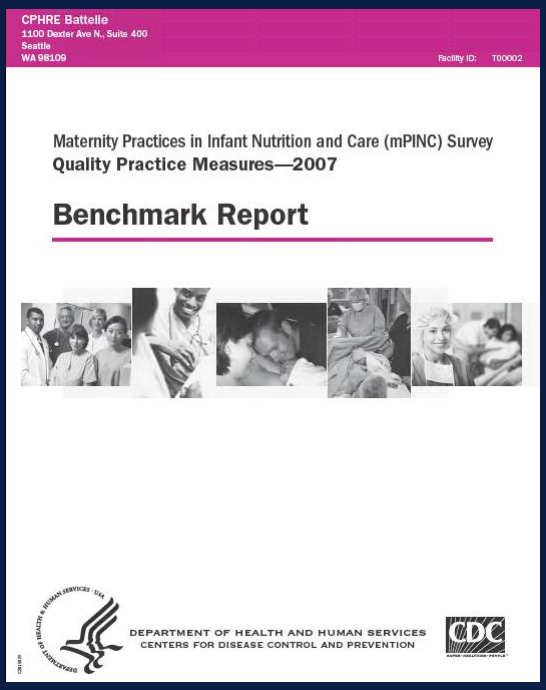
Benchmark Report Target Audiences

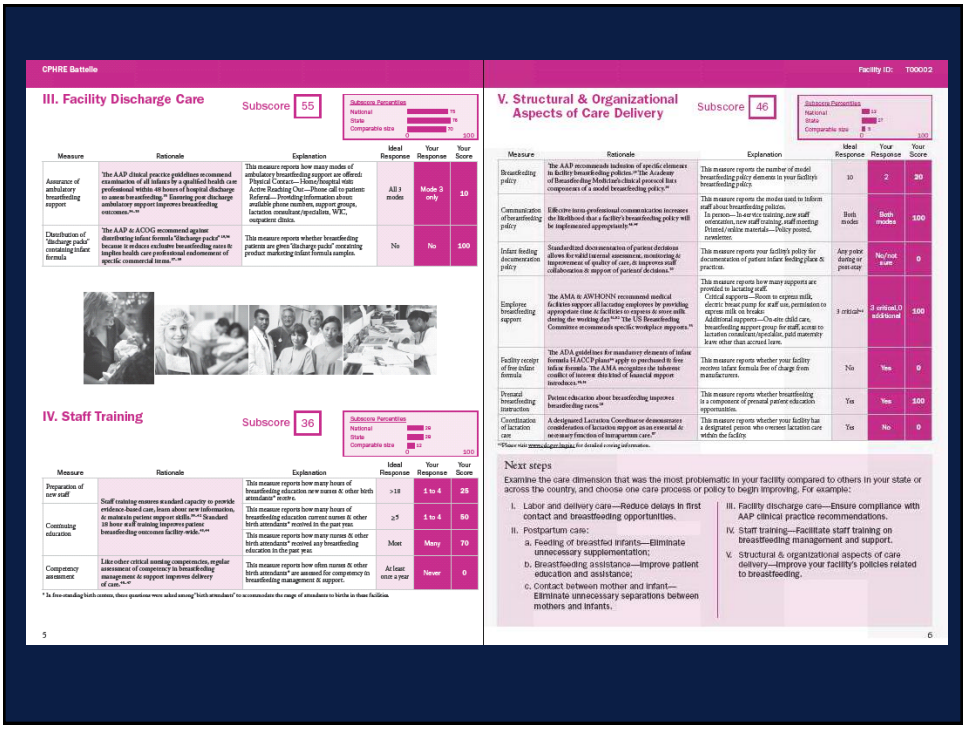
Birth Center:

- Birth Center Owner
- Medical Director
- Head Midwife
- Key Informant

Hospital:

- CEO
- Director of Quality Assurance/Improvement
- Director of Obstetrics
- Director of Pediatrics
- Mother Baby Nurse Manager
- Key Informant




CPHRE Battelle

Facility ID: T00002

III. Facility Discharge Care

Subscore 55

Subscore Percentiles
National 75
State 75
Comparable size 70
0 100

Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Assurance of ambulatory breastfeeding support	The AAP clinical practice guidelines recommend examination of all infants by a qualified health care professional within 48 hours of hospital discharge to assess breastfeeding.[8] Ensuring post-discharge ambulatory support improves breastfeeding outcomes.[9–19]	This measure reports how many modes of ambulatory breastfeeding support are offered: Physical Contact— Home/hospital visit; Active Reaching Out—Phone call to patient; Referral— Providing information about available phone numbers, support groups, lactation consultant/specialists, WIC, outpatient clinics.	All 3 modes	Mode 3 only	10
Distribution of "discharge packs" containing infant formula	The AAP & ACOG recommend against distributing infant formula "discharge packs" [18,19] because it reduces exclusive breastfeeding rates & implies health care professional endorsement of specific commercial items.[17–19]	This measure reports whether breastfeeding patients are given "discharge packs" containing product marketing infant formula samples.	No	No	100

IV. Staff Training

Subscore 36

Subscore Percentiles
National 20
State 20
Comparable size 10
0 100

Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Preparation of new staff	Staff training ensures standard capacity to provide evidence-based care, learn about new information, & maintain patient support skills.[20–22] Standard 10 hour staff training improves patient breastfeeding outcomes facility-wide.[23,24]	This measure reports how many hours of breastfeeding education new nurses & other birth attendants* receive.	>10	1 to 4	25
Continuing education		This measure reports how many hours of breastfeeding education current nurses & other birth attendants* received in the past year.	≥5	1 to 4	50
		This measure reports how many nurses & other birth attendants* received any breastfeeding education in the past year.	Most	Many	70
Competency assessment	Like other critical nursing competencies, regular assessment of competency in breastfeeding management & support improves delivery of care.[25–27]	This measure reports how often nurses & other birth attendants* are assessed for competency in breastfeeding management & support.	At least once a year	Never	0

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

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V. Structural & Organizational Aspects of Care Delivery

Subscore 46

Subscore Percentiles
National 19
State 17
Comparable size 8
0 100

Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Breastfeeding policy	The AAP recommends inclusion of specific elements in facility breastfeeding policies.[28] The Academy of Breastfeeding Medicine's clinical protocol lists components of a model breastfeeding policy.[29]	This measure reports the number of model breastfeeding policy elements in your facility's breastfeeding policy.	10	2	20
Communication of breastfeeding policy	Effective intra-professional communication increases the likelihood that a facility's breastfeeding policy will be implemented appropriately.[30–32]	This measure reports the modes used to inform staff about breastfeeding policies. In person— In-service training, new staff orientation, new staff training; staff meeting. Printed/online materials—Policy posted, newsletter.	Both modes	Both modes	100
Infant feeding documentation policy	Standardized documentation of patient decisions allows for valid internal assessment, monitoring & improvement of quality of care, & improves staff collaboration & support of patients' decisions.[33]	This measure reports your facility's policy for documentation of patient infant feeding plans & practices.	Any point during or post-stay	No/not sure	0
Employee breastfeeding support	The AMA & AWHONN recommend medical facilities support all lactating employees by providing appropriate time & facilities to express & store milk during the working day.[34,35] The US Breastfeeding Committee recommends specific workplace supports.[36]	This measure reports how many supports are provided to lactating staff. Critical supports—Room to express milk, electric breast pump for staff use, permission to express milk on breaks. Additional supports—On-site child care, breastfeeding support group for staff, access to lactation consultant/specialist, paid maternity leave other than accrued leave.	3 critical[36]	3 critical,0 additional	100
Facility receipt of free infant formula	The ADA guidelines for mandatory elements of infant formula HACCP plans[37] apply to purchased & free infant formula. The AMA recognizes the inherent conflict of interest this kind of financial support introduces.[38,39]	This measure reports whether your facility receives infant formula free of charge from manufacturers.	No	Yes	0
Prenatal breastfeeding instruction	Parent education about breastfeeding improves breastfeeding rates.[40]	This measure reports whether breastfeeding is a component of prenatal patient education opportunities.	Yes	Yes	100
Coordination of lactation care	A designated Lactation Coordinator demonstrates consideration of lactation support as an essential & necessary function of intrapartum care.[41]	This measure reports whether your facility has a designated person who oversees lactation care within the facility.	Yes	No	0

*Please visit www.dcgen.hpsa.hrsa.gov for detailed scoring information.

Next steps

Examine the care dimension that was the most problematic in your facility compared to others in your state or across the country, and choose one care process or policy to begin improving. For example:

I. Labor and delivery care—Reduce delays in first contact and breastfeeding opportunities.

II. Postpartum care:
- a. Feeding of breastfed infants—Eliminate unnecessary supplementation;
- b. Breastfeeding assistance—Improve patient education and assistance;
- c. Contact between mother and infant—Eliminate unnecessary separations between mothers and infants.

III. Facility discharge care—Ensure compliance with AAP clinical practice recommendations.

IV. Staff training—Facilitate staff training on breastfeeding management and support.

V. Structural & organizational aspects of care delivery—Improve your facility's policies related to breastfeeding.

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Measure	Rationale	Explanation	Ideal Response	Your Response	Your Score
Initial skin-to-skin contact	Skin-to-skin contact is beneficial because it improves infant ability to establish breastfeeding.[9]	This measure reports how many patients experience mother-infant skin-to-skin contact for at least 30 minutes within 1 hour of vaginal birth.	Most	Many	70
		This measure reports how many patients experience mother-infant skin-to-skin contact for at least 30 minutes within 2 hours for Cesarean birth.	Most	Few	0
Initial breastfeeding opportunity	Early initiation of breastfeeding is beneficial because it increases overall breastfeeding duration & reduces a mother's risk of delayed onset of milk production.[10]	This measure reports what percent of patients have the opportunity to breastfeed within 1 hour of uncomplicated vaginal birth	≥90	75	70
		This measure reports what percent of patients have the opportunity to breastfeed within 2 hours of uncomplicated Cesarean birth.	≥90	40	30
Routine procedures performed skin-to-skin	Performing routine infant procedures & assessments without separating mother & infant is beneficial because it improves breastfeeding outcomes by reducing unnecessary separation of mother & infant & increases infant stability. It is safe for mother & infant to perform these procedures skin-to-skin.[11,12]	This measure reports how often patients have routine infant procedures performed while mother & infant are skin-to-skin.	Almost always	Rarely	0
				Labor and Delivery Care Score	34

Future steps

Future steps—how do we improve maternity care practices

1. Educate facility decision-makers
   - Grassroots efforts by hospital staff
   - mPINC benchmark reports
   - Social movements (e.g. BanTheBags.org)
   - Strong statements from ABM, AAP, ACOG, NAPNAP, ANA, CDC, DHHS
   - Training programs directed toward facilities (NGOs, LCs, etc.)

Future steps—how do we improve maternity care practices

2. Recognize excellence
   - Baby-Friendly Hospital Initiative (currently 65 hospitals)
     - International Gold Standard
     - No reassessment
     - Hospitals must pay for assessment
     - Free formula is a significant barrier
   - State-specific initiatives such as the Texas Ten Step

Future steps—how do we improve maternity care practices

3. Ensure oversight by regulatory agencies
   - Joint Commission for the Accreditation of Healthcare Organizations (JCAHO)
     - Assessors often ask about lactation care
     - No national standards to apply
   - State perinatal regulations/hospital certification
     - Generally weak

Future steps—how do we improve maternity care practices

4. Publicly report on hospital performance
   - National Quality Forum indicators
     - Recommended indicator on gap between any and exclusive in-hospital breastfeeding rates
   - California Newborn Screening
     - Public reports of breastfeeding rates have evoked significant attention

Future steps—how do we improve maternity care practices

5. Tie reimbursement rates to performance
   - Medicaid or 3rd party payer payments could be higher for better performing hospitals
     - Based on exclusive in-hospital breastfeeding rates
     - Based on BFHI designation
     - Based on receipt of free formula

Future steps—how do we improve maternity care practices

6. Establish regional collaboratives
   - Hospitals meet together to learn and establish performance goals
   - Various stakeholders are engaged to seek out innovative solutions

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Thank you!

www.cdc.gov/breastfeeding

www.cdc.gov/mpinc