

August 11, 2009

State Breastfeeding Coalitions Teleconference:  
 CDC National Survey of  
 maternity Care Practices in Infant Nutrition and Care (mPINC):  
 Using State Reports to Inform, Influence, and Monitor Change

## Bonus Material (Appendix)

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Hospital patients expect their medical care to be evidence-based.

Patients expect care decisions to be based on what is necessary and beneficial to their health.

Assumptions:

- All procedures and practices work towards improving patient health outcomes
- Procedures and practices that undermine patient health outcomes are discouraged and take into account:
  - Risk benefit ratio
  - Extenuating circumstances
  - Rare exceptions

### Breastfeeding at 8 weeks

Percent of mothers (interviewed at 8 wks postpartum about hospital experiences) (Murray et al., 2007)

| No | Hospital Experience                       | Yes |
|----|---|-----|
| 66 | Breastfeeding in the 1 <sup>st</sup> hour | 77  |
| 65 | No supplemented feeding                   | 81  |
| 62 | Rooming-in                                | 74  |
| 69 | No pacifiers                              | 78  |
| 64 | Phone number given to mothers             | 75  |

Approx mean diff = 12%

Why target the maternity hospital stay?

### Public Health Impact

In the US, >99% of births occur in hospitals:

- Characteristics of care are relatively consistent nationwide
  - Length of stay
  - Delivery of care

The maternity stay is a time when new mothers have abundant access to health professionals.

Focus is on preventive care:

- Usual goal is to maintain existing health of the infant and mother
- Different from other in-patient hospital populations who are sick

The first days of life, when mother and newborn are often in the hospital, are crucial to establishing breastfeeding.

However,

Some elements of maternity medical care, including...

- ...processes, policies, and practices,
- ...routine practices, traditions, habits,
- ...design, systems, and expectations...

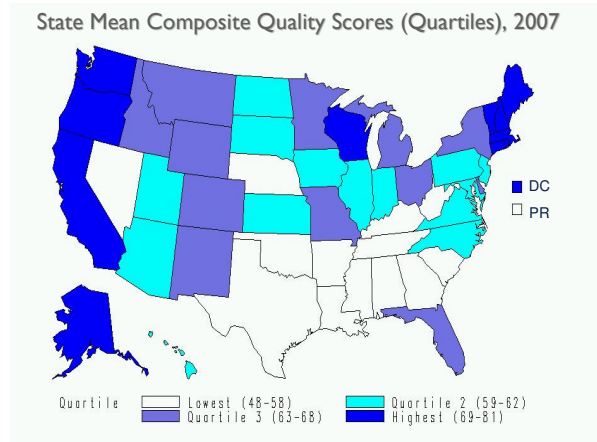
...can interfere with healthy infant care.

### In-hospital supplemental feeds reduce breastfeeding opportunities. (Nylander, et al. 1991)

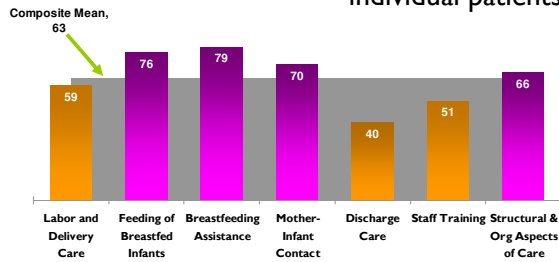
| Control<br>(ad lib supplementing) | In-hospital Behaviors              | Intervention<br>(med indicated supplementing) |
|-----------------------------------|------------------------------------|---|
| 4.8 feeds                         | Supplementary feeds/24 h on day 2  | 1.1 feeds                                     |
| 188 ml                            | Volume of supplement on day 2      | 23 ml   |
| 100%                              | Supplementing on day 2             | 2%  |
| 565 ml                            | Total supplement consumed days 1-3 | 68 ml   |
| 4.3 feeds                         | Breastfeeds/24 hr on day 2         | 6.4 feeds                                     |
| 47 ml                             | Volume of breast milk on day 2     | 132 ml  |
| 2%                                | Night-time breastfeeding           | 98%   |

### What actually happens in maternity care settings?

- How common are positive practices?
- How common are negative practices?
  - Geographic variations?
  - Predictors of variations?
    - Birth census
    - Population served
    - Staffing
    - Others?



**Typical maternity care in the US includes many types of problematic practices. Most practices are beyond the control of individual patients.**

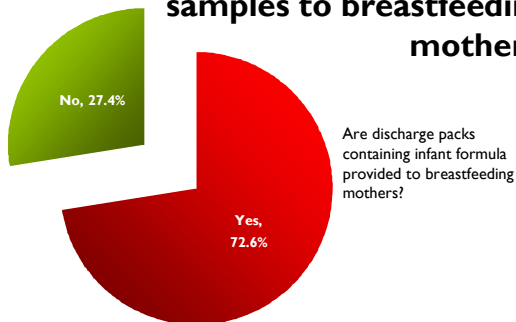


**Inappropriate practices are common, especially among surgical (cesarean) births.**

Percent of facilities agreeing

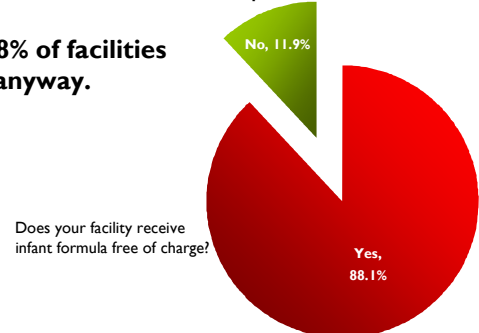
|  | Vaginal births    | Surgical births  |
|--|-------------------|------------------|
| Routine care for most mothers does not include skin-to-skin contact with the infant. | 33.7%             | 51.2%            |
| Less than half of breastfeeding patients begin breastfeeding within...               | 19.7% (...1 hour) | 32% (...2 hours) |

**Almost three quarters of facilities provide infant formula samples to breastfeeding mothers.**



Receiving infant formula free of charge contradicts AMA policy recommendations and makes it more difficult to adhere to HACCP plans.

**Yet 88% of facilities do it anyway.**



Mothers and babies are separated for many reasons, the cumulative effect may be problematic.



Benchmark Reports were mailed individually to specific people at each respondent facility.

This multipurpose document is an **intervention strategy** developed to **raise awareness**, **provide motivators for change**, and **identify barriers to change** that are specific to the facility.

The report is **customized to each respondent** and provides detailed survey information.

The target audiences for the Benchmark Reports were very narrowly defined, and **content was specifically tailored to meet audience needs.**

**Hospital audience:**

- CEO/Administrator
- Director of Quality Improvement
- Director of Obstetrics
- Director of Pediatrics
- Mother Baby Nurse Manager
- Survey Recipient

**Birth Center audience:**

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

Other reports using mPINC Findings: CDC State Breastfeeding Report Card

| State            | Average mPINC Score (range = 100) | Percent of live births occurring at facilities designated as Baby Friendly (BFHI) | Percent of breastfed infants receiving formula within 2 days of age | Number of BCLCs* per 1,000 live births | Number of La Leche League groups per 1,000 live births | Number of state health department FTEs* dedicated to breastfeeding | State legislation about breastfeeding in public places | State legislation mandating employer lactation support | Breastfeeding coalition with public website |
|------------------|-----------------------------------|---|---|--|--|--|--|--|---|
| U.S. National    | 62                                | 2.67  | 29.6  | 2.20                                   | 0.24   | 97.76  | no   | no   | no  |
| Alabama          | 55                                | 0   | 29.2  | 0.97                                   | 0.17   | 1.00   | yes  | no   | yes   |
| Alaska           | 73                                | 22.42   | 16.7  | 3.20                                   | 0.81   | 0.20   | yes  | no   | yes   |
| Arizona          | 62                                | 0   | 26.7  | 1.42                                   | 0.14   | 1.00   | yes  | no   | yes   |
| Arkansas         | 48                                | 0   | 21.2  | 1.52                                   | 0.31   | 3.50   | yes  | yes  | yes   |
| California       | 69                                | 8.68  | 26.2  | 1.94                                   | 0.21   | 4.40   | yes  | yes  | yes   |
| Colorado         | 65                                | 2.83  | 22.7  | 2.40                                   | 0.51   | 0.00   | yes  | yes  | yes   |
| Connecticut      | 70                                | 12.34   | 20.9  | 3.84                                   | 0.72   | 1.00   | yes  | yes  | yes   |
| Delaware         | 63                                | 0   | 19.3  | 3.00                                   | 0.00   | 2.00   | yes  | no   | yes   |
| Dist of Columbia | 76                                | 0   | 25.4  | 1.02                                   | 0.11   | 3.00   | yes  | yes  | yes   |
| Florida          | 60                                | 1.48  | 30.0  | 1.01                                   | 0.20   | 1.00   | yes  | no   | yes   |
| Georgia          | 56                                | 0   | 21.0  | 1.80                                   | 0.22   | 2.00   | yes  | no   | yes   |
| Hawaii           | 82                                | 8.88  | 22.9  | 2.20                                   | 0.21   | 0.00   | yes  | no   | yes   |
| Idaho            | 65                                | 6.50  | 13.9  | 1.00                                   | 0.44   | 1.00   | no   | no   | yes   |
| Illinois         | 60                                | 1.31  | 28.5  | 2.11                                   | 0.38   | 2.00   | yes  | yes  | yes   |
| Indiana          | 62                                | 4.64  | 20.3  | 2.87                                   | 0.46   | 2.33   | yes  | yes  | yes   |
| Iowa             | 61                                | 0   | 15.6  | 2.00                                   | 0.24   | 0.00   | yes  | no   | yes   |
| Kansas           | 59                                | 0   | 19.2  | 2.31                                   | 0.88   | 0.00   | yes  | no   | no  |
| Kentucky         | 57                                | 6.48  | 20.2  | 1.87                                   | 0.24   | 2.00   | yes  | no   | no  |
| Louisiana        | 54                                | 0   | 24.0  | 1.49                                   | 0.27   | 1.00   | yes  | no   | no  |
| Maine            | 77                                | 18.33   | 16.0  | 0.74                                   | 0.05   | 1.00   | yes  | yes  | no  |
| Maryland         | 61                                | 0   | 25.9  | 3.00                                   | 0.40   | 1.00   | yes  | no   | yes   |
| Massachusetts    | 75                                | 2.95  | 19.3  | 4.43                                   | 0.45   | 1.40   | yes  | no   | yes   |
| Michigan         | 64                                | 0   | 32.6  | 2.07                                   | 0.20   | 1.00   | yes  | no   | yes   |
| Minnesota        | 65                                | 0   | 19.2  | 0.90                                   | 0.49   | 1.00   | yes  | no   | yes   |
| Mississippi      | 50                                | 0   | 25.9  | 1.29                                   | 0.19   | 2.00   | yes  | no   | yes   |
| Missouri         | 63                                | 0   | 19.8  | 1.80                                   | 0.00   | 0.00   | yes  | no   | yes   |
| Montana          | 63                                | 0.94  | 17.6  | 3.16                                   | 0.64   | 0.00   | yes  | no   | yes   |

[www.cdc.gov/breastfeeding/data/report\\_card.htm](http://www.cdc.gov/breastfeeding/data/report_card.htm)

**Ultimate Goal:**

**Standard** healthy infant nutrition and care ensures **all** mothers and babies receive care that...

- ...utilizes best practices and
- ...is free of policies, practices, and environmental influences that undermine maternal and child health and wellbeing.

Central location for mPINC information: **www.cdc.gov/mpinc**

**Methodology**

General and Detailed Results Tables

Downloadable files

- Survey instruments (hospital and birth center versions)
- Sample Benchmark Report
- Information sheets on:
  - Maternity care practices and breastfeeding
  - General mPINC information
  - mPINC dimensions of care
  - Benchmark Reports