# Maternity Practices in Infant Nutrition and Care In **North Carolina** —2009 mPINC Survey

This report provides data from the 2009 mPINC survey for North Carolina. It describes specific opportunities to improve mother-baby care at hospitals and birth centers in North Carolina in order to more successfully meet national quality of care standards for perinatal care.


More information is at www.cdc.gov/mpinc

**Breastfeeding is a National Priority**

Breastfeeding is associated with decreased risk for infant morbidity and mortality as well as maternal morbidity,[1] and provides optimal infant nutrition. *Healthy People 2020*[2] establishes breastfeeding initiation, continuation, and exclusivity as national priorities.

**Changes in Maternity Care Practices Improve Breastfeeding Rates**

Maternity practices in hospitals and birth centers can influence breastfeeding behaviors during a period critical to successful establishment of lactation.[3] Abundant literature, including a Cochrane review, document that institutional changes in maternity care practices to make them more supportive of breastfeeding increase initiation and continuation of breastfeeding.[4]

## Breastfeeding Support in **North Carolina** Facilities

### Strengths

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| **Documentation of Mothers' Feeding Decisions**<br>Staff at all (100%) facilities in North Carolina consistently ask about and record mothers' infant feeding decisions. | Standard documentation of infant feeding decisions is important to adequately support maternal choice. |
| **Availability of Prenatal Breastfeeding Instruction**<br>Most facilities (94%) in North Carolina include breastfeeding education as a routine element of their prenatal classes. | Prenatal education about breastfeeding is important because it provides mothers with a better understanding of the benefits and requirements of breastfeeding, resulting in improved breastfeeding rates. |

### Needed Improvements

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| **Appropriate Use of Breastfeeding Supplements**<br>Only 6% of facilities in North Carolina adhere to standard clinical practice guidelines against routine supplementation with formula, glucose water, or water. | The American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) Guidelines for Perinatal Care recommend against routine supplementation because supplementation with formula and/or water makes infants more likely to receive formula at home and stop breastfeeding prematurely. |
| **Inclusion of Model Breastfeeding Policy Elements**<br>Only 14% of facilities in North Carolina have comprehensive breastfeeding policies including all model breastfeeding policy components recommended by the Academy of Breastfeeding Medicine (ABM). | The ABM model breastfeeding policy elements are the result of extensive research on best practices to improve breastfeeding outcomes. Facility policies determine the nature of care that is available to patients. Facilities with comprehensive policies consistently have the highest rates of exclusive breastfeeding, regardless of patient population characteristics such as ethnicity, income, and payer status. |
| **Initiation of Mother and Infant Skin-to-Skin Care**<br>Only 33% of facilities in North Carolina initiate skin-to-skin care for at least 30 minutes upon delivery of the newborn. | Upon delivery, the newborn should be placed skin-to-skin with the mother and allowed uninterrupted time to initiate and establish breastfeeding in order to improve infant health outcomes and reduce the risk of impairment of the neonatal immune system from unnecessary non-breast milk feeds. |
| **Protection of Patients from Formula Marketing**<br>Only 21% of facilities in North Carolina adhere to clinical and public health recommendations against distributing formula company discharge packs. | Distribution of discharge packs contributes to premature breastfeeding discontinuation. The ACOG, AAP, American Public Health Association (APHA), and the federal Government Accountability Office (GAO) all identify this practice as inappropriate in medical environments and recommend against it. |

Every two years, CDC administers the national Maternity Practices in Infant Nutrition and Care (mPINC) survey to all hospitals and birth centers in the U.S. that provide maternity care.

Data from this survey can be used to establish evidence-based, breastfeeding-supportive maternity practices as standards of care in hospitals and birth centers across the US. Improved care will help meet *Healthy People 2020* breastfeeding objectives and will help improve maternal and child health nationwide.

National Center for Chronic Disease Prevention and Health Promotion
Division of Nutrition, Physical Activity, and Obesity

# North Carolina Summary —2009 mPINC Survey

**Survey Method** At each facility, the person who is the most knowledgeable about the facility's maternity practices related to healthy newborn feeding and care completes the CDC mPINC survey.

**Response Rate** 78% of the 88 eligible facilities in North Carolina responded to the 2009 mPINC Survey. Each participating facility received its facility-specific mPINC benchmarking report in March 2011.

**North Carolina's Composite Quality Practice Score*** **62** (out of 100)

**North Carolina's Composite Rank†** **33** (out of 52)

| mPINC Dimension of Care | NC Quality Practice Subscore* | Ideal Response to mPINC Survey Question | Percent of NC Facilities with Ideal Response | NC Item Rank† |
|---|---|---|---|---|
| Labor and Delivery Care | 55 | Initial skin-to-skin contact is ≥30 min w/in 1 hour (vaginal births) | 33 | 38 |
| | | Initial skin-to-skin contact is ≥30 min w/in 2 hours (cesarean births) | 25 | 40 |
| | | Initial breastfeeding opportunity is w/in 1 hour (vaginal births) | 43 | 41 |
| | | Initial breastfeeding opportunity is w/in 2 hours (cesarean births) | 37 | 32 |
| | | Routine procedures are performed skin-to-skin | 16 | 31 |
| Feeding of Breastfed Infants | 70 | Initial feeding is breast milk (vaginal births) | 69 | 35 |
| | | Initial feeding is breast milk (cesarean births) | 61 | 29 |
| | | Supplemental feedings to breastfeeding infants are rare | 6 | 48 |
| | | Water and glucose water are not used | 64 | 39 |
| Breastfeeding Assistance | 80 | Infant feeding decision is documented in the patient chart | 100 | - |
| | | Staff provide breastfeeding advice & instructions to patients | 88 | 29 |
| | | Staff teach breastfeeding cues to patients | 79 | 36 |
| | | Staff teach patients not to limit suckling time | 38 | 34 |
| | | Staff directly observe & assess breastfeeding | 83 | 26 |
| | | Staff use a standard feeding assessment tool | 59 | 27 |
| | | Staff rarely provide pacifiers to breastfeeding infants | 32 | 23 |
| Contact Between Mother and Infant | 68 | Mother-infant pairs are not separated for postpartum transition | 55 | 28 |
| | | Mother-infant pairs room-in at night | 66 | 33 |
| | | Mother-infant pairs are not separated during the hospital stay | 32 | 22 |
| | | Infant procedures, assessment, and care are in the patient room | 3 | 19 |
| | | Non-rooming-in infants are brought to mothers at night for feeding | 68 | 47 |
| Facility Discharge Care | 34 | Staff provide appropriate discharge planning (referrals & other multi-modal support) | 26 | 25 |
| | | Discharge packs containing infant formula samples and marketing products are not given to breastfeeding patients | 21 | 36 |
| Staff Training | 56 | New staff receive appropriate breastfeeding education | 8 | 21 |
| | | Current staff receive appropriate breastfeeding education | 12 | 29 |
| | | Staff received breastfeeding education in the past year | 43 | 25 |
| | | Assessment of staff competency in breastfeeding management & support is at least annual | 62 | 10 |
| Structural & Organizational Aspects of Care Delivery | 68 | Breastfeeding policy includes all 10 model policy elements | 14 | 19 |
| | | Breastfeeding policy is effectively communicated | 68 | 35 |
| | | Facility documents infant feeding rates in patient population | 67 | 23 |
| | | Facility provides breastfeeding support to employees | 74 | 10 |
| | | Facility does not receive infant formula free of charge | 3 | 38 |
| | | Breastfeeding is included in prenatal patient education | 94 | - |
| | | Facility has a designated staff member responsible for coordination of lactation care | 73 | 26 |

* Quality Practice scores range from 0 to 100 for each question, dimenstion of care, facility, and state. The highest, best possible score for each is 100. Each facility and state's "Composite Quality Practice Score" is made up of subscores for practices in each of 7 dimensions of care.

† Ranks range from 1 to 52, with 1 being the highest rank. In case of a tie, both are given the same rank.

- State ranks are not shown for survey questions with 90% or more facilities reporting ideal responses.

## Improvement is Needed in Maternity Care Practices and Policies in North Carolina.

Many opportunities exist to protect, promote, and support breastfeeding mothers and infants in North Carolina.

## Take action on this critical need—consider the following:

- ☑ Examine North Carolina regulations for maternity facilities and evaluate their evidence base; revise if necessary.
- ☑ Sponsor a North Carolina-wide summit of key decision-making staff at maternity facilities to highlight the importance of evidence-based practices for breastfeeding.
- ☑ Pay for hospital staff across North Carolina to participate in 18-hour training courses in breastfeeding.
- ☑ Establish links among maternity facilities and community breastfeeding support networks in North Carolina.
- ☑ Identify and implement programs within hospital settings—choose one widespread practice and adjust it to be evidence-based and supportive of breastfeeding.
- ☑ Integrate maternity care into related hospital-wide Quality Improvement efforts across North Carolina.
- ☑ Promote North Carolina-wide utilization of the Joint Commission's Perinatal Care Core Measure Set including exclusive breastfeeding at discharge in hospital data collection.

### Questions about the mPINC survey?

Information about the mPINC survey, benchmark reports, scoring methods, and complete references are available at: www.cdc.gov/mpinc

**For more information:**
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**References**

[1] Ip S, Chung M, Raman G, et al. Breastfeeding and maternal and infant health outcomes in developed countries. Rockville, MD: US Dept of Health and Human Services, Agency for Healthcare Research and Quality; 2007.

[2] US Dept of Health and Human Services. Healthy People 2020 Summary of Objectives: Maternal, Infant, and Child Health. Available at http://www.healthypeople.gov/2020/topicsobjectives2020/pdfs/MaternalChildHealth.pdf

[3] DiGirolamo AM, Grummer-Strawn LM, Fein S. Effect of maternity care practices on breastfeeding. Pediatrics 2008;122, Supp 2:S43-9.

[4] Fairbank L, O'Meara S, Renfrew MJ, Woolridge M, Snowden AJ, Lister-Sharp D. A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding. Health Technology Assessment 2000;4:1-171.