[the following information appears on page 1 of each State Report]

Maternity Practices in Infant Nutrition and Care in North Carolina - 2011 mPINC Survey

This report provides data from the 2011 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. For more information about the mPINC survey, visit 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 increased initiation and duration of breastfeeding (4).

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.

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Strengths in Breastfeeding Support in North Carolina Facilities

Documentation of Mothers' Feeding Decisions	Staff at all (100%) facilities in North Carolina consistently ask about and record mothers' infant feeding decisions.	Standard documentation of infant feeding decisions isimportant to adequately support maternal choice.
Availability of Prenatal Breastfeeding Instruction	Most facilities (96%) inNorth 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 in North Carolina Facilities

Appropriate Use of Breastfeeding Supplements	Only 10% 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.
Adequate Assessment of Staff Competency	Only 16% of facilities in North Carolina annually assess staff competency for basic breastfeeding management and support.	Implementing comprehensive assessment of staff training and skills for basic breastfeeding management and support establishes the foundation for quality infant feeding care. Adequate training and skills assessment are critical to ensure that mothers and infants receive care that is consistent, evidence-based, and appropriate.
Initiation of Mother and Infant Skin-to-Skin Care	Only44% 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.
Provision of Hospital Discharge Planning Support	Only22% of facilities in North Carolina provide hospital discharge care including a phone call to the patient's home, opportunity for follow-up visit, and referral to community breastfeeding support.	The American Academy of Pediatrics (AAP) clinical practice guidelines recommend examination of the newborn by a qualified health care professional within 48 hours of hospital discharge in order to assess breastfeeding. Ensuring post discharge ambulatory support improves breastfeeding outcomes.

[the following information appears on page 2 of each State Report]

North Carolina Summary – 2011 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: 89% of the 88 eligible hospitals and birth centers in North Carolina responded to the 2011 mPINC survey. Each participating facility received its facility-specific benchmark report in October 2012.

North Carolina Composite Quality Practice Score: 67 (Quality Practice scores range from 0 to 100 for each question, dimension 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.)

North Carolina State Rank: 31 (Ranks range from 1 to 52, with 1 being the highest rank. In the 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. Potential opportunities:

- Examine North Carolina regulations for maternity facilities and evaluate their evidence base.
- Sponsor a North Carolina-wide summit of key decision-making staff at maternity facilities to highlight the importance of evidence-based practices for breastfeeding.
- Encourage and support hospital staff across North Carolina to be trained in providing care that supports mothers to breastfeed.
- Establish links among maternity facilities and community breastfeeding support networks in North Carolina.
- Implement evidence-based practices in medical care settings across North Carolina that support mothers' efforts to breastfeed.
- Integrate maternity care into related hospital-wide Quality Improvement efforts across North Carolina.
- Promote utilization of the Joint Commission's Perinatal Care Core Measure Set including exclusive breast milk feeding at hospital discharge in North Carolina hospital data collection systems.

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. Maternity care practices: implications for breastfeeding. Birth 2001;28:94-100.
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.

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

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

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mPINC Dimension of Care	NC Quality Practice Subscore	Ideal Response to mPINC Survey Question	Percent of Facilities with Ideal Response	NC Rank
Labor and Delivery Care	61			
		Initial skin-to-skin contact is ≥30 min w/in 1 hour (vaginal births)	44	40
		Initial skin-to-skin contact is ≥30 min w/in 2 hours (cesarean births)	39	30
		Initial breastfeeding opportunity is w/in 1 hour (vaginal births)	42	49
		Initial breastfeeding opportunity is w/in 2 hours (cesarean births)	36	46
		Routine procedures are performed skin-to-skin	15	44
Feeding of Breastfed Infants	77			
		Initial feeding is breast milk (vaginal births)	70	36
		Initial feeding is breast milk (cesarean births)	57	43
		Supplemental feedings to breastfeeding infants are rare	10	48
		Water and glucose water are not used	76	38
Breastfeeding Assistance	78			
		Infant feeding decision is documented in the patient chart	100	---
		Staff provide breastfeeding advice & instructions to patients	91	---
		Staff teach breastfeeding cues to patients	86	24
		Staff teach patients not to limit suckling time	54	17
		Staff directly observe & assess breastfeeding	83	31
		Staff use a standard feeding assessment tool	2	25
		Staff rarely provide pacifiers to breastfeeding infants	77	39
Contact Between Mother and Infant	60			
		Mother-infant pairs are not separated for postpartum transition	60	29
		Mother-infant pairs room-in at night	76	26
		Mother-infant pairs are not separated during the hospital stay	31	29
		Infant procedures, assessment, and care are in the patient room	2	25
		Non-rooming-in infants are brought to mothers at night for feeding	77	39
Facility Discharge Care	36			
		Staff provide appropriate discharge planning (referrals & other multi-modal support)	22	37
		Discharge packs containing infant formula samples and marketing products are not given to breastfeeding patients	40	29
Staff Training	61			
		New staff receive appropriate breastfeeding education	11	20
		Current staff receive appropriate breastfeeding education	25	15
		Staff received breastfeeding education in the past year	58	14
		Assessment of staff competency in breastfeeding management & support is at least annual	65	15
Structural & Organizational Aspects of Care Delivery	70			
		Breastfeeding policy includes all 10 model policy elements	16	28
		Breastfeeding policy is effectively communicated	87	8
		Facility documents infant feeding rates in patient population	76	15
		Facility provides breastfeeding support to employees	73	22
		Facility does not receive infant formula free of charge	15	23
		Breastfeeding is included in prenatal patient education	96	---
		Facility has a designated staff member responsible for coordination of lactation care	71	26