



**What is the mPINC Survey?** The Maternity Practices in Infant Nutrition and Care (mPINC) Survey is a national survey from the Centers for Disease Control and Prevention (CDC) that assesses infant feeding care processes, policies, and staffing expectations in maternity care settings.

**What is in this report?** This report summarizes results from all North Carolina facilities that participated in the 2013 mPINC Survey and identifies opportunities to improve mother-baby care at hospitals and birth centers and related health outcomes throughout North Carolina.

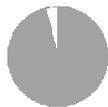
**Who participates in the mPINC survey?** All hospitals with maternity services and all free-standing birth centers in the United States are invited to participate in CDC's mPINC survey every two years.

North Carolina's mPINC Score:

75

In North Carolina, 80% of 83 eligible facilities participated in CDC's 2013 mPINC Survey.

### North Carolina Highlights: Strengths



**Provision of Breastfeeding Advice and Counseling**  
Staff at 96% of facilities in North Carolina provide breastfeeding advice and instructions to patients who are breastfeeding, or intend to breastfeed.

The American Academy of Pediatrics (AAP) recommends pediatricians provide patients with complete, current information on the benefits and methods of breastfeeding to ensure that the feeding decision is a fully informed one. Patient education is important in order to establish breastfeeding.



**Availability of Prenatal Breastfeeding Instruction**  
Most facilities (91%) in North Carolina include breastfeeding education as a routine element of their prenatal classes.

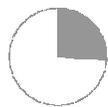
Prenatal education about breastfeeding is important because it provides mothers with a better understanding of the benefits and requirements of breastfeeding, resulting in improved breastfeeding rates.

### North Carolina Highlights: Opportunities for Improvement



**Appropriate Use of Breastfeeding Supplements**  
Only 15% 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**  
Only 26% 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.



**Provision of Hospital Discharge Planning Support**  
Only 18% 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.



**Adequate Assessment of Staff Competency**  
Only 61% 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.

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

## Changes in maternity care practices improve breastfeeding rates.

There are many opportunities to protect, promote, and support breastfeeding in North Carolina. Opportunities such as those listed below can help bring ideal maternity care practices to all North Carolina hospitals.

### Change 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.

## North Carolina's 2013 Survey Results

**75** North Carolina's State mPINC Score  
(out of 100)\*

North Carolina's State mPINC Rank  
(out of 53)<sup>†</sup> **29**

mPINC Care Dimension	Care Dimension Subscore*	Ideal Response to mPINC Survey Question	Percent of NC Facilities with Ideal Response	Item Rank <sup>†</sup>
<b>Labor and Delivery Care</b>	<b>76</b>	Initial skin-to-skin contact is at least 30 min w/in 1 hour (vaginal births)	74	<b>24</b>
		Initial skin-to-skin contact is at least 30 min w/in 2 hours (cesarean births)	53	<b>34</b>
		Initial breastfeeding opportunity is w/in 1 hour (vaginal births)	53	<b>43</b>
		Initial breastfeeding opportunity is w/in 2 hours (cesarean births)	50	<b>41</b>
		Routine procedures are performed skin-to-skin	36	<b>35</b>
<b>Feeding of Breastfed Infants</b>	<b>79</b>	Initial feeding is breast milk (vaginal births)	62	<b>52</b>
		Initial feeding is breast milk (cesarean births)	58	<b>47</b>
		Supplemental feedings to breastfeeding infants are rare	15	<b>45</b>
<b>Breast-feeding Assistance</b>	<b>87</b>	Water and glucose water are not used	83	<b>39</b>
		Infant feeding decision is documented in the patient chart	97	---
		Staff provide breastfeeding advice & instructions to patients	96	---
		Staff teach breastfeeding cues to patients	94	---
		Staff teach patients not to limit suckling time	58	<b>23</b>
		Staff directly observe & assess breastfeeding	85	<b>34</b>
		Staff use a standard feeding assessment tool	76	<b>19</b>
<b>Contact Between Mother and Infant</b>	<b>79</b>	Staff rarely provide pacifiers to breastfeeding infants	41	<b>34</b>
		Mother-infant pairs are not separated for postpartum transition	71	<b>32</b>
		Mother-infant pairs room-in at night	86	<b>27</b>
		Mother-infant pairs are not separated during the hospital stay	49	<b>20</b>
		Infant procedures, assessment, and care are in the patient room	4	<b>39</b>
<b>Facility Discharge Care</b>	<b>63</b>	Non-rooming-in infants are brought to mothers at night for feeding	91	---
		Staff provide appropriate discharge planning (referrals & other multi-modal support)	18	<b>44</b>
<b>Staff Training</b>	<b>66</b>	Discharge packs containing infant formula samples and marketing products are not given to breastfeeding patients	82	<b>15</b>
		New staff receive appropriate breastfeeding education	22	<b>17</b>
		Current staff receive appropriate breastfeeding education	36	<b>12</b>
		Staff received breastfeeding education in the past year	65	<b>16</b>
<b>Structural &amp; Organizational Aspects of Care Delivery</b>	<b>76</b>	Assessment of staff competency in breastfeeding management & support is at least annual	61	<b>26</b>
		Breastfeeding policy includes all 10 model policy elements	26	<b>25</b>
		Breastfeeding policy is effectively communicated	82	<b>19</b>
		Facility documents infant feeding rates in patient population	92	---
		Facility provides breastfeeding support to employees	72	<b>25</b>
		Facility does not receive infant formula free of charge	21	<b>30</b>
		Breastfeeding is included in prenatal patient education	91	---
Facility has a designated staff member responsible for coordination of lactation care	74	<b>24</b>		

### Questions about the mPINC survey?

Information about the mPINC survey, results, reports, scoring, and history is at: [www.cdc.gov/mpinc](http://www.cdc.gov/mpinc)

### For more information:

Centers for Disease Control and Prevention  
Division of Nutrition, Physical Activity, and Obesity  
Atlanta, GA USA

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### References

- <sup>1</sup> 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.
- <sup>2</sup> 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/topics/objectives/2020/pdfs/MaternalChildHealth.pdf>
- <sup>3</sup> DiGirolamo AM, Grummer-Strawn LM, Fein S. Effect of maternity care practices on breastfeeding. *Pediatrics* 2008;122, Supp 2:S43-9.
- <sup>4</sup> 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.