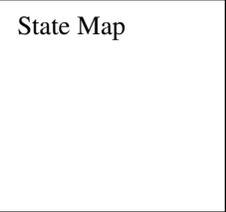


[the following information appears on page 1 of each State Report]

## **Maternity Practices in Infant Nutrition and Care in Tennessee**

In 2009, CDC administered the first national **Maternity Practices in Infant Nutrition and Care** (“mPINC”) survey. All hospitals and birth centers in the U.S. that provide maternity care were invited to participate. This report describes specific opportunities to improve mother-baby care at hospitals and birth centers in Tennessee in order to more successfully meet national quality of care standards for perinatal care.



State Map

For more information about the mPINC survey, visit [www.cdc.gov/mpinc](http://www.cdc.gov/mpinc)

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

Breastfeeding provides optimal nutrition for infants and is associated with decreased risk for infant morbidity and mortality as well as maternal morbidity.<sup>1</sup> Maternity practices in hospitals and birth centers can influence breastfeeding behaviors during a period critical to successful establishment of lactation.<sup>2</sup> The literature, including a Cochrane review, found that institutional changes in maternity care practices to make them more supportive of breastfeeding increased initiation and duration of breastfeeding.<sup>3</sup>

### Strengths in Breastfeeding Support in Tennessee Facilities

	Documentation of Mothers' Feeding Decisions	Staff at 100% of facilities in Tennessee 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	Staff at 98% of facilities in Tennessee 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.

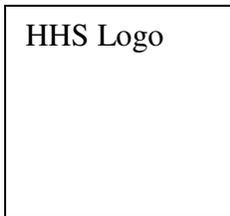
### Needed Improvements in Tennessee Facilities

	Appropriate Use of Breastfeeding Supplements	Only 21% of facilities in Tennessee 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 11% of facilities in Tennessee 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.
	Provision of Hospital Discharge Planning Support	Only 12% of facilities in Tennessee 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.
	Use of Combined Mother/Baby Postpartum Care	Only 21% of facilities in Tennessee report that most healthy full-term infants remain with their mothers for at least 23 hours per day throughout the hospital stay.	Mother-infant contact during the hospital stay helps establish breastfeeding and maintain infant weight, temperature, and health. Rooming-in increases breastfeeding learning opportunities and duration and quality of maternal sleep, and reduces supplemental feeds.

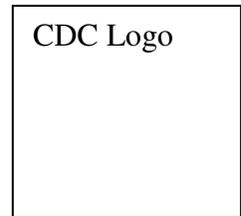
## **Breastfeeding is a National Priority**

Breastfeeding protects mothers' and infants' health.<sup>1</sup> *Healthy People 2010*<sup>4</sup> includes breastfeeding as a national priority and it is recommended by a number of health professional organizations.<sup>5</sup>

Establishing evidence-based, breastfeeding-supportive maternity practices as standards of care in US hospitals and birth centers will help meet *Healthy People 2010* breastfeeding objectives and will help improve maternal and child health nationwide.



Department of Health and Human Services  
Centers for Disease Control and Prevention  
Safer, Healthier, People



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

### **The CDC mPINC Survey**

The CDC mPINC survey was mailed to all US maternity facilities, with the request that it be completed by the person most knowledgeable about the facility's maternity practices related to infant feeding and care.

57% of the 69 eligible hospitals and birth centers in Tennessee responded to the 2009 CDC mPINC survey.

Each participating facility received its facility-specific benchmark report in Spring 2011.

For more information about the mPINC survey, visit [www.cdc.gov/mpinc](http://www.cdc.gov/mpinc)

### **Evidence-based maternity care supports mothers' decisions and increases the chances that mothers will meet their personal breastfeeding**

#### **Improvement is Needed in Maternity Care Practices and Policies in**

Many opportunities exist in Tennessee to protect, promote, and support breastfeeding mothers and infants. To take action on this critical need, consider the following:

- Examine Tennessee regulations for maternity facilities and evaluate their evidence base; revise if necessary.
- Sponsor a Tennessee-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 Tennessee to participate in 18-hour training courses in breastfeeding.
- Establish links among maternity facilities and community breastfeeding support networks in Tennessee.

- 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 Quality Improvement efforts including:
  - Consistent delivery of optimal care
  - Improving patient flow
  - Improving patient experience & loyalty
  - Engaging physicians in a shared quality agenda
  - Increasing staff efficiency
  - Optimizing hospital-to-home transitions
- Develop a plan to ensure adherence to the Joint Commission’s Perinatal Care Core Measure Set to include exclusive breastfeeding at discharge in hospital data collection starting with April 1, 2010, discharges.

Questions about the mPINC survey?

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

[\*\*mpinc@cdc.gov\*\*](mailto:mpinc@cdc.gov)

June 2011

## 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> DiGirolamo AM, Grummer-Strawn LM, Fein S. Maternity care practices: implications for breastfeeding. *Birth* 2001;28:94-100.
- <sup>3</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.
- <sup>4</sup> US Dept of Health and Human Services. Healthy People 2010 midcourse review. Washington, DC: US Dept of Health and Human Services; 2005. Available at <http://www.healthypeople.gov/data/midcourse>.
- <sup>5</sup> Organizations including but not limited to: National Quality Forum; American Academy of Pediatrics; American Association of Family Physicians; American College of Obstetricians and Gynecologists; Association of Women's Health, Obstetric, and Neonatal Nurses; American College of Nurse Midwives; Academy of Breastfeeding Medicine; American Public Health Association; World Health Organization.

**Results of the 2009 CDC mPINC Survey: Tennessee**

**Tennessee Composite Quality Practice Score\*: 60**

**Tennessee State Rank<sup>+</sup>: 40**

<b>mPINC Dimension of Care</b>	<b>Ideal Response to mPINC Survey Question</b>	<b>Percent of Facilities with Ideal Response<sup>‡</sup></b>	<b>TN Rank<sup>+</sup></b>	<b>TN Subscale Score* (out of 100)</b>
<b>Labor and Delivery Care</b>				59
	Initial skin-to-skin contact is $\geq$ 30 min w/in 1 hour (vaginal births)	37	33	
	Initial skin-to-skin contact is $\geq$ 30 min w/in 2 hours (cesarean births)	28	29	
	Initial breastfeeding opportunity is w/in 1 hour (vaginal births)	47	37	
	Initial breastfeeding opportunity is w/in 2 hours (cesarean births)	32	38	
	Routine procedures are performed skin-to-skin	5	49	
<b>Feeding of Breastfed Infants</b>				75
	Initial feeding is breast milk (vaginal births)	68	38	
	Initial feeding is breast milk (cesarean births)	56	39	
	Supplemental feedings to breastfeeding infants are rare	21	22	
	Water and glucose water are not used	68	36	
<b>Breastfeeding Assistance</b>				77
	Infant feeding decision is documented in the patient chart	100	-	
	Staff provide breastfeeding advice & instructions to patients	91	-	
	Staff teach breastfeeding cues to patients	81	27	
	Staff teach patients not to limit suckling time	27	48	
	Staff directly observe & assess breastfeeding	86	18	
	Staff use a standard feeding assessment tool	2	22	
	Staff rarely provide pacifiers to breastfeeding infants	76	36	
<b>Contact Between Mother and Infant</b>				63
	Mother-infant pairs are not separated for postpartum transition	30	47	
	Mother-infant pairs room-in at night	67	29	
	Mother-infant pairs are not separated during the hospital stay	21	35	
	Infant procedures, assessment, and care are in the patient room	2	22	
	Non-rooming-in infants are brought to mothers at night for feeding	76	36	

<b>mPINC Dimension of Care</b>	<b>Ideal Response to mPINC Survey Question</b>	<b>Percent of Facilities with Ideal Response<sup>‡</sup></b>	<b>TN Rank<sup>+</sup></b>	<b>TN Subscale Score* (out of 100)</b>
Facility Discharge Care				28
	Staff provide appropriate discharge planning (referrals & other multi-modal support)	12	46	
	Discharge packs containing infant formula samples and marketing products are not given to breastfeeding patients	27	27	
Staff Training				52
	New staff receive appropriate breastfeeding education	4	41	
	Current staff receive appropriate breastfeeding education	8	42	
	Staff received breastfeeding education in the past year	48	20	
	Assessment of staff competency in breastfeeding management & support is at least annual	64	9	
Structural & Organizational Aspects of Care Delivery				66
	Breastfeeding policy includes all 10 model policy elements	11	29	
	Breastfeeding policy is effectively communicated	72	30	
	Facility documents infant feeding rates in patient population	63	30	
	Facility provides breastfeeding support to employees	58	29	
	Facility does not receive infant formula free of charge	11	21	
	Breastfeeding is included in prenatal patient education	98	-	
	Facility has a designated staff member responsible for coordination of lactation care	56	45	

\* Facility practices in 7 dimensions of care ("subscales") contribute to the overall "Composite Quality Practice Score." Possible item, subscale, and overall scores range from 0 to 100, with 100 being the highest, best possible score.

<sup>+</sup> State ranks range from 1 to 52, with 1 being the highest rank. In case of a tie, both states are given the same rank.

<sup>‡</sup> Calculation excludes facilities' responses that indicate prevalence is "unknown" for the practice measured in a given item.

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