Maternity Practices in Infant Nutrition and Care in Massachusetts

In 2007, CDC administered the first national **M**aternity **P**ractices in **I**nfant **N**utrition and **C**are ("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 Massachusetts 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**

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.[1] Maternity practices in hospitals and birth centers can influence breastfeeding behaviors during a period critical to successful establishment of lactation.[2] 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.[3]

Strengths in Breastfeeding Support in Massachusetts Facilities

Practice	Why it matters
Documentation of Mothers' Feeding Decisions Staff at all (**100%**) facilities in Massachusetts 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 all (**100%**) facilities in Massachusetts 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 Massachusetts Facilities

Practice	Why it matters
Appropriate Use of Breastfeeding Supplements Only **25%** of facilities in Massachusetts 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 **29%** of facilities in Massachusetts 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 **28%** of facilities in Massachusetts 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 **10%** of facilities in Massachusetts 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.[1] *Healthy People 2010*[4] includes breastfeeding as a national priority and it is recommended by a number of health professional organizations.[5]

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.

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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.

77% of the 47 eligible hospitals and birth centers in Massachusetts responded to the 2007 CDC mPINC survey.

Each participating facility received its facility-specific benchmark report in October 2008.

For more information about the mPINC survey, visit **www.cdc.gov/mpinc**

Results of the 2007 CDC mPINC Survey: Massachusetts

Massachusetts Composite Quality Practice Score*: 75

Massachusetts State Rank†: 6

mPINC Dimension of Care	Ideal Response to mPINC Survey Question	Percent of Facilities with Ideal Response‡	MA Rank†	MA Subscale Score* (out of 100)
Labor and Delivery Care	Initial skin-to-skin contact is ≥30 min w/in 1 hour (vaginal births)	50	14	72
	Initial skin-to-skin contact is ≥30 min w/in 2 hours (cesarean births)	46	8	
	Initial breastfeeding opportunity is w/in 1 hour (vaginal births)	64	6	
	Initial breastfeeding opportunity is w/in 2 hours (cesarean births)	50	10	
	Routine procedures are performed skin-to-skin	31	10	
Feeding of Breastfed Infants	Initial feeding is breast milk (vaginal births)	80	10	87
	Initial feeding is breast milk (cesarean births)	79	5	
	Supplemental feedings to breastfeeding infants are rare	25	15	
	Water and glucose water are not used	85	6	
Breastfeeding Assistance	Infant feeding decision is documented in the patient chart	100	-	86
	Staff provide breastfeeding advice & instructions to patients	97	-	
	Staff teach breastfeeding cues to patients	92	-	
	Staff teach patients not to limit suckling time	51	9	
	Staff directly observe & assess breastfeeding	94	-	
	Staff use a standard feeding assessment tool	68	10	
	Staff rarely provide pacifiers to breastfeeding infants	35	14	
Contact Between Mother and Infant	Mother-infant pairs are not separated for postpartum transition	53	23	72
	Mother-infant pairs room-in at night	71	18	
	Mother-infant pairs are not separated during the hospital stay	10	40	
	Infant procedures, assessment, and care are in the patient room	8	12	
	Non-rooming-in infants are brought to mothers at night for feeding	74	28	
Facility Discharge Care	Staff provide appropriate discharge planning (referrals & other multi-modal support)	28	20	61
	Discharge packs containing infant formula samples and marketing products are not given to breastfeeding patients	61	7	
Staff Training	New staff receive appropriate breastfeeding education	3	37	72
	Current staff receive appropriate breastfeeding education	32	11	
	Staff received breastfeeding education in the past year	66	4	
	Assessment of staff competency in breastfeeding management & support is at least annual	86	1	
Structural & Organizational Aspects of Care Delivery	Breastfeeding policy includes all 10 model policy elements	29	2	79
	Breastfeeding policy is effectively communicated	100	-	
	Facility documents infant feeding rates in patient population	77	6	
	Facility provides breastfeeding support to employees	63	24	
	Facility does not receive infant formula free of charge	8	24	
	Breastfeeding is included in prenatal patient education	100	-	
	Facility has a designated staff member responsible for coordination of lactation care	94	-	

* 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.

† 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.

‡ 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.

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] DiGirolamo AM, Grummer-Strawn LM, Fein S. Maternity care practices: implications for breastfeeding. Birth 2001;28:94-100.

[3] 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.

[4] 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.

[5] 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.

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

Improvement is Needed in Maternity Care Practices and Policies in Massachusetts

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

☑ Examine Massachusetts regulations for maternity facilities and evaluate their evidence base; revise if necessary.

☑ Sponsor a Massachusetts-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 Massachusetts to participate in 18-hour training courses in breastfeeding.

☑ Establish links among maternity facilities and community breastfeeding support networks in Massachusetts.

☑ 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 recently revised (July 2009) 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

For more information:

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