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

Strengths in Breastfeeding Support in North Dakota Facilities

- **Documentation of Mothers’ Feeding Decisions**
  - Staff at 100% of facilities in North Dakota 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 94% of facilities in North Dakota 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 Dakota Facilities

- **Appropriate Use of Breastfeeding Supplements**
  - Only 13% of facilities in North Dakota 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 12% of facilities in North Dakota 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.

- **Protection of Patients from Formula Marketing**
  - Only 12% of facilities in North Dakota 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. Distribution of these promotional items exploits patients’ trust in their medical providers and care.

- **Use of Combined Mother/Baby Postpartum Care**
  - Only 7% of facilities in North Dakota 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. Healthy People 2010 includes breastfeeding as a national priority and is recommended by a number of health professional organizations.

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.
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. 94% of the 18 eligible hospitals and birth centers in North Dakota 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

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### Results of the 2007 CDC mPINC Survey: North Dakota

<table>
<thead>
<tr>
<th>mPINC Dimension of Care</th>
<th>Ideal Response to mPINC Survey Question</th>
<th>Percent of Facilities with Ideal Response</th>
<th>ND Rank1</th>
<th>ND Subscale Score* (out of 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor and Delivery Care</strong></td>
<td>Initial skin-to-skin contact is ≥30 min w/in 1 hour (vaginal births)</td>
<td>41</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial skin-to-skin contact is ≥30 min w/in 2 hours (cesarean births)</td>
<td>31</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial breastfeeding opportunity is ≤1 hour (vaginal births)</td>
<td>31</td>
<td>42</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Initial breastfeeding opportunity is ≤2 hours (cesarean births)</td>
<td>60</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Routine procedures are performed skin-to-skin</td>
<td>13</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td><strong>Feeding of Breastfed Infants</strong></td>
<td>Initial feeding is breast milk (vaginal births)</td>
<td>71</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial feeding is breast milk (cesarean births)</td>
<td>69</td>
<td>13</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Supplemental feedings to breastfeeding infants are rare</td>
<td>13</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water and glucose water are not used</td>
<td>50</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td><strong>Breastfeeding Assistance</strong></td>
<td>Infant feeding decision is documented in the patient chart</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff provide breastfeeding advice &amp; instructions to patients</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff teach breastfeeding cues to patients</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff teach patients not to limit suckling time</td>
<td>38</td>
<td>21</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Staff directly observe &amp; assess breastfeeding</td>
<td>88</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff use a standard feeding assessment tool</td>
<td>47</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff rarely provide pacifiers to breastfeeding infants</td>
<td>25</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td><strong>Contact Between Mother and Infant</strong></td>
<td>Mother-infant pairs are not separated for postpartum transition</td>
<td>27</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mother-infant pairs room-in at night</td>
<td>53</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mother-infant pairs are not separated during the hospital stay</td>
<td>7</td>
<td>47</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Infant procedures, assessment, and care are in the patient room</td>
<td>0</td>
<td>36</td>
<td></td>
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<tr>
<td></td>
<td>Non-rooming-in infants are brought to mothers at night for feeding</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Facility Discharge Care</strong></td>
<td>Staff provide appropriate discharge planning (referrals &amp; other multi-modal support)</td>
<td>24</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Discharge packs containing infant formula samples and marketing products are not given to breastfeeding patients</td>
<td>12</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td><strong>Staff Training</strong></td>
<td>New staff receive appropriate breastfeeding education</td>
<td>0</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Current staff receive appropriate breastfeeding education</td>
<td>29</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff received breastfeeding education in the past year</td>
<td>29</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assessment of staff competency in breastfeeding management &amp; support is at least annual</td>
<td>41</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

* CDC created quality practice scores for each participating facility and each state based on facilities’ responses to mPINC survey items. Facility practices in 7 dimensions of care (”subscases”) contributed to the overall “Composite Quality Practice Score.” Possible item, subscale, and overall scores ranged from 0 to 100, with 100 being the highest, best possible score.

1 State ranks ranged from 1 to 52, with 1 being the highest rank. In case of a tie, both states were given the same rank.

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

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### 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 North Dakota

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

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

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### Questions about the mPINC survey?

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

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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

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April, 2010

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### References

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.