Breastfeeding Success-prenatal providers make a difference

Ann E.B. Borders, MD, MSc, MPH
Maternal-Fetal Medicine
NorthShore University HealthSystem
Outline

- The evidence for breast milk
- Breastfeeding is a national public health priority
- How are we doing in Illinois?
- Key Barriers to breastfeeding
- Interventions to Close the Gap
  - Baby Friendly Initiative at Evanston Hospital
  - The prenatal providers important role
  - Breastfeeding Peer Counselors
Breastfeeding: A Cornerstone of Quality Maternal-Infant Care

“Breast milk is uniquely suited to the human infant’s nutritional needs and is a live substance with unparalleled immunological and anti-inflammatory properties that protect against a host of illnesses and diseases for both mothers and children.”

-Surgeon General’s Call to Action to Support Breastfeeding, January 20, 2011

• Lawrence & Lawrence (2010)
• Surgeon General’s Call to Action to Support Breastfeeding (2011)
The World Health organization says: “Virtually all mothers can breastfeed, provided they have accurate information, and the support of their family, the health care system and society at large ... Breast milk is ... the perfect food for the newborn, and feeding should be initiated within the first hour after birth.”

Breastfeeding is a critical resource for health that exists in all communities. It may very well be the most important choice a mother can make when her baby is born.
Health benefits of breastfeeding

- Protects babies from infections such as diarrhea, ear infections, and pneumonia
- Breastfed babies are less likely to develop asthma, diabetes, cardiovascular disease, allergies, childhood leukemia
- Babies breastfed for 6 months or more are 22% less likely to become obese
- Breastfeeding significantly reduces the risk of SIDS
- Mothers who breastfeed have a decreased risk of breast cancer, ovarian cancer, diabetes, hypertension and cardiovascular disease.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Excess Risk (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Among full-term infants</strong></td>
<td></td>
</tr>
<tr>
<td>Acute ear infection</td>
<td>100</td>
</tr>
<tr>
<td>Eczema</td>
<td>47</td>
</tr>
<tr>
<td>Diarrhea / GI infection</td>
<td>178</td>
</tr>
<tr>
<td>Hospitalization for respiratory illness in the first year</td>
<td>257</td>
</tr>
<tr>
<td>Asthma, with vs. no family history</td>
<td>67 / 35</td>
</tr>
<tr>
<td>Childhood obesity</td>
<td>32</td>
</tr>
<tr>
<td>Type 2 Diabetes</td>
<td>64</td>
</tr>
<tr>
<td>Acute lymphocytic leukemia</td>
<td>23</td>
</tr>
<tr>
<td>Sudden infant death syndrome</td>
<td>56</td>
</tr>
<tr>
<td><strong>Among preterm infants</strong></td>
<td></td>
</tr>
<tr>
<td>Necrotizing Enterocolitis</td>
<td>138</td>
</tr>
<tr>
<td><strong>Among Mothers</strong></td>
<td></td>
</tr>
<tr>
<td>Breast cancer</td>
<td>4</td>
</tr>
<tr>
<td>Ovarian cancer</td>
<td>27</td>
</tr>
</tbody>
</table>

* The excess risk is approximated by using the odds ratios reported in the referenced studies.

#### Among full-term infants

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Excess Risk* (%) (95% CI)</th>
<th>Comparison Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute ear infections (otitis media)</td>
<td>100 (56, 233)</td>
<td>EFF vs. EBF for 3 or 6 mos</td>
</tr>
<tr>
<td>Eczema (atopic dermatitis)</td>
<td>47 (14, 92)</td>
<td>EBF &lt;3 mos vs. EBF ≥3 mos</td>
</tr>
<tr>
<td>Diarrhea / vomiting (GI infection)</td>
<td>178 (144, 213)</td>
<td>Never BF vs. ever BF</td>
</tr>
<tr>
<td>Hospitalization for lower resp tract dz in 1st year</td>
<td>257 (85, 614)</td>
<td>Never BF vs. EBF ≥4 mos</td>
</tr>
<tr>
<td>Asthma, with family history</td>
<td>67 (22, 133)</td>
<td>BF &lt;3 mos vs. ≥3 mos</td>
</tr>
<tr>
<td>Asthma, no family history</td>
<td>35 (9, 67)</td>
<td>BF &lt;3 mos vs. ≥3 mos</td>
</tr>
<tr>
<td>Childhood obesity</td>
<td>32 (16, 49)</td>
<td>Never BF vs. ever BF</td>
</tr>
<tr>
<td>Type 2 diabetes mellitus</td>
<td>64 (18, 127)</td>
<td>Never BF vs. ever BF</td>
</tr>
<tr>
<td>Acute lymphocytic leukemia</td>
<td>23 (10, 41)</td>
<td>Never BF vs. &gt;6 mos</td>
</tr>
<tr>
<td>Acute myelogenous leukemia</td>
<td>18 (2, 37)</td>
<td>Never BF vs. &gt;6 mos</td>
</tr>
<tr>
<td>Sudden infant death syndrome</td>
<td>56 (23, 96)</td>
<td>Never BF vs. ever BF</td>
</tr>
</tbody>
</table>

#### Among preterm infants

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Excess Risk (95% CI)</th>
<th>Comparison Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necrotizing enterocolitis</td>
<td>138 (22, 2400)</td>
<td>Never BF vs. ever BF</td>
</tr>
</tbody>
</table>

#### Among mothers

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Excess Risk (95% CI)</th>
<th>Comparison Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast cancer</td>
<td>4 (3, 6)</td>
<td>Never BF vs. ever BF (per year of breastfeeding)</td>
</tr>
<tr>
<td>Ovarian cancer</td>
<td>27 (10, 47)</td>
<td>Never BF vs. ever BF</td>
</tr>
</tbody>
</table>
Infant Benefits

- Reduction in childhood obesity
  - For each month of breastfeeding up to age 9 months, the odds of overweight in childhood decreased by an additional 4-6%. With 30% decrease in odds if breastfed for 9 months compared to children never breastfed.

- Infection
  - Randomized PROBIT trial, No breast milk 1.7 x risk of GI infection, 2 x risk of ear infections first year of life
  - Preterm Infants: Not receiving breast milk 2.4 fold risk of necrotizing enterocolitis. Every 20 preterm infants receiving breast milk prevents 1 case of NEC.
Infant Benefits

- SIDS – Meta analyses of case control studies suggest formula feeding associated with 1.6-2.1 fold increased odds of SIDS. German case control study not being exclusively breastfed at 1 month of age associated with 2 fold risk of SIDS. *Pediatrics* 2009

- Autoimmune – Asthma family hx 1.9 increased risk of asthma if not breastfeeding vs breastfeeding > 3 months. Atopic Dermatitis 1.7 – 1.9 fold higher risk if not breastfed vs exclusive breastfed > 3 months.

- Childhood Leukemia – immunoactive factors in breast milk may prevent viral infections implicated in leukemia pathogenesis. Meta- analyses x 2 showed 1.3 fold higher risk of ALL formula fed vs breast fed > 6 months. 1.2 fold risk AML for formula fed vs BF > 6 m
Maternal Benefits

- Reduction in Breast Cancer
  - Nurses Health Study II with 60,000 women reporting at least one pregnancy in 1997 followed through 2005 for diagnosis of breast cancer
  - For women with a family history, Breastfeeding associated with a 59% reduction in premenopausal breast cancer compared to women who did not breastfeed
  - For all women, 25% reduction in breast cancer if breastfed

Archives of Internal Medicine, Aug 2009
Maternal Benefits

• Nurses Health Study, followed 73,418 parous women
  • For each additional year of lactation, 15% reduction in Type II Diabetes, controlling for BMI, *JAMA, November 2005*
  • Never breastfed 1.5 fold risk of Ovarian Cancer

• Women’s Health Initiative, 139,681 women
  • Women with >12 months lactation less likely to have HTN [OR 0.88 (p<0.001)], diabetes OR 0.8 (p<0.001), hyperlipidemia (OR = 0.81, p<0.001) or cardiovascular dz (OR 0.91, p=0.008) then if did not breastfeed
  • If breastfed > 6 months significantly less likely develop cardiovascular dz (HR 0.72 (0.53 – 0.97), and less likely develop HTN, then if never BF. *Obstet Gynecol, May 2009*
Outline

- The evidence for breast milk
- Breastfeeding is a national public health priority
- How are we doing in Illinois?
- Key Barriers to breastfeeding
- Interventions to Close the Gap
  - Baby Friendly Initiative at Evanston Hospital
  - The prenatal providers important role
  - Breastfeeding Peer Counselors
Disparities in Breastfeeding

CDC 2010 Breastfeeding Report Card

- 3 out of 4 mothers (75%) in the US start breastfeeding
- At 6 months breastfeeding rates fall to 43% and only 13% of babies exclusively breastfeed
- Among African-American women the rates are significantly lower, 58% start out breastfeeding, 28% breastfeed at 6 months, only 8% exclusively breastfeed at 6 months.
## Maternal Infant & Child Health Objective

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase proportion of infants who are breastfed exclusively through 6 months</td>
<td>13.6%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Reduce proportion of breastfed newborns who receive formula supplementation within the first 2 days of life.</td>
<td>25.6%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Increase proportion of births that occur in facilities that provide recommended care for lactating mothers and their babies.</td>
<td>2.9%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Increase proportion of employers that have worksite lactation programs</td>
<td>25%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Department of Health and Human Services (2010).
Surgeon General’s Call to Action

- Surgeon General Regina M. Benjamin released a Call to Action to Support Breastfeeding on January 20th.
- 20 point plan focuses on the roles of families, communities, employers and health care professionals:
  - **Families** should give mothers the support and encouragement they need to breastfeed.
  - **Communities** should expand and improve programs that provide mother–to–mother support and peer counseling.
  - **Maternity care practices** should provide education and counseling on breastfeeding.
  - **Clinicians** should be trained to properly care for breastfeeding mothers and babies.
  - **Employers** should offer paid maternity leave and high-quality lactation support programs.
Surgeon General: Regina Benjamin, MD

- One of the most highly effective preventive measures a mother can take to protect the health of her infant and herself is to breastfeed. However, in the U.S., while 75 percent of mothers start out breastfeeding, only 13 percent of babies are exclusively breastfed at the end of six months. Additionally, rates are significantly lower for African-American infants.
- The decision to breastfeed is a personal one, and a mother should not be made to feel guilty if she cannot or chooses not to breastfeed. The success rate among mothers who want to breastfeed can be greatly improved through active support from their families, friends, communities, clinicians, health care leaders, employers and policymakers.
- Given the importance of breastfeeding for the health and well-being of mothers and children, it is critical that we take action across the country to support breastfeeding.
Health Provider Organizations release clear statements for providers

- American Academy of Pediatrics
- American College of Obstetrics and Gynecology
- American Academy of Family Physicians
- Academy of Breastfeeding Medicine
- American College of Nurse-Midwives
Current Trends: The Joint Commission

- Includes exclusive breast milk feeding as one of five Perinatal Care Core measures (April 2010)
Current Trends:
Illinois Hospital Report Card

- Hospital Quality Rating for Consumers
- Exclusive breastfeeding rates sought for inclusion on Illinois Hospital Report Card

Outline

- The evidence for breast milk
- Breastfeeding is a national public health priority
- How are we doing in Illinois?
- Key Barriers to breastfeeding
- Interventions to Close the Gap
  - Baby Friendly Initiative at Evanston Hospital
  - The prenatal providers important role
  - Breastfeeding Peer Counselors
CDC – mPINC Survey

- Maternity Practices in Infant Nutrition and Care
- National Measurement Tool
- Illinois ranked 35th (2007 mPINC)

Centers for Disease Control and Prevention (2007).
Maternity Practices in Infant Nutrition and Care in Illinois — 2009 mPINC Survey

This report provides data from the 2009 mPINC survey for Illinois. It describes specific opportunities to improve mother-baby care at hospitals and birth centers in Illinois in order to more successfully meet national quality of care standards for perinatal care.

Breastfeeding is a National Priority

Breastfeeding is associated with decreased risk for infant morbidity and mortality as well as maternal morbidity, and provides optimal infant nutrition. Healthy People 2020 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. Abundant literature, including a Cochrane review, document that institutional changes in maternity care practices to make them more supportive of breastfeeding increase initiation and continuation of breastfeeding.

Breastfeeding Support in Illinois Facilities

Strengths

- Availability of Prenatal Breastfeeding Instruction
  Most facilities in Illinois include breastfeeding education as a routine element of their prenatal classes.
- Provision of Breastfeeding Advice and Counseling
  Staff at ≥35% of facilities in Illinois provide breastfeeding advice and instructions to patients who are breastfeeding, or intend to breastfeed.
- 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.
- 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.

Needed Improvements

- Appropriate Use of Breastfeeding Supplements
  Only 15% of facilities in Illinois adhere to standard clinical practice guidelines against routine supplementation with formula, glucose-water, or water.
- Inclusion of Model Breastfeeding Policy Elements
  Only 45% of facilities in Illinois have comprehensive breastfeeding policies including all model breastfeeding policy components recommended by the Academy of Breastfeeding Medicine (ABM).
- Protection from Formula Marketing
  Only 35% of facilities in Illinois adhere to clinical and public health recommendations against distributing formula company discharge packs.
- Initiation of Mother and Infant Skin-to-Skin Care
  Only 5% of facilities in Illinois initiate skin-to-skin care for at least 30 minutes upon delivery of the newborn.

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 U.S. Improved care will help meet Healthy People 2020 breastfeeding objectives and will help improve maternal and child health nationwide.
### Illinois Summary — 2009 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**
86% of the 121 eligible facilities in Illinois responded to the 2009 mPINC Survey. Each participating facility received its facility-specific mPINC benchmarking report in March 2011.

**Illinois’s Composite Quality Practice Score**
63 (out of 100)

**Illinois’s Composite Rank**
31 (out of 51)

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

Many opportunities exist to protect, promote, and support breastfeeding mothers and infants in Illinois.

**Take action on this critical need—consider the following:**

- **Examine Illinois regulations for maternity facilities and evaluate their evidence base; revise if necessary.**
- **Sponsor an Illinois-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 Illinois to participate in 18-hour training courses in breastfeeding.**
- **Establish links among maternity facilities and community breastfeeding support networks in Illinois.**
- **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 hospital-wide Quality Improvement efforts across Illinois.**
- **Promote Illinois-wide utilization of the Joint Commission’s Perinatal Care Core Measure Set including exclusive breastfeeding at discharge in hospital data collection.**

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

<table>
<thead>
<tr>
<th>mPINC Dimension of Care</th>
<th>IL Quality Practice Subscore*</th>
<th>Ideal Response to mPINC Survey Question</th>
<th>Percent of IL Facilities with Ideal Response</th>
<th>IL Rank Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor and Delivery Care</strong></td>
<td>57</td>
<td>Initial skin-to-skin contact is 30 minutes or less (vaginal births)</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Initial skin-to-skin contact is 30 minutes or less (cesarean births)</td>
<td>26</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Initial breastfeeding opportunity is 1 hour (vaginal births)</td>
<td>48</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Initial breastfeeding opportunity is 1 hour (cesarean births)</td>
<td>42</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Routine procedures are performed skin-to-skin</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td><strong>Feeding of Breastfed Infants</strong></td>
<td>79</td>
<td>Initial feeding is breast milk (vaginal births)</td>
<td>77</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Initial feeding is breast milk (cesarean births)</td>
<td>63</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplemental feedings to breastfeeding infants are rare</td>
<td>16</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water and glucose water are not used</td>
<td>81</td>
<td>19</td>
</tr>
<tr>
<td><strong>Breastfeeding Assistance</strong></td>
<td>80</td>
<td>Intrapartum decision is documented in the patient chart</td>
<td>99</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff provide breastfeeding advice &amp; instructions to patients</td>
<td>92</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff teach breastfeeding to patients</td>
<td>87</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff teach patients not to limit sucking time</td>
<td>43</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff directly observe &amp; assess breastfeeding</td>
<td>76</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff use a standard feeding assessment tool</td>
<td>61</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff many provide pacifiers to breastfeeding infants</td>
<td>22</td>
<td>31</td>
</tr>
<tr>
<td><strong>Contact Between Mother and Infant</strong></td>
<td>68</td>
<td>Mother-infant pairs are not separated for postpartum transition</td>
<td>51</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mother-infant pairs remain in one room night</td>
<td>69</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mother-infant pairs are not separated during the hospital stay</td>
<td>72</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intrapartum procedures, assessment, and care are in the patient room</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-nursing infants are brought to mothers at night for feeding</td>
<td>79</td>
<td>31</td>
</tr>
<tr>
<td><strong>Facility Discharge Care</strong></td>
<td>36</td>
<td>Staff provide appropriate discharge planning for infants unless otherwise indicated</td>
<td>19</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discharge packs containing infant formula samples and marketing products are given to breastfeeding infants</td>
<td>31</td>
<td>36</td>
</tr>
<tr>
<td><strong>Staff Training</strong></td>
<td>53</td>
<td>New staff receive appropriate breastfeeding education</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Current staff receive appropriate breastfeeding education</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff received breastfeeding education in the past year</td>
<td>46</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment of staff competency in breastfeeding management &amp; support is at least annual</td>
<td>54</td>
<td>18</td>
</tr>
<tr>
<td><strong>Structural &amp; Organizational Aspects of Care Delivery</strong></td>
<td>69</td>
<td>Breastfeeding policy includes all site policy elements</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Breastfeeding policy is effectively communicated</td>
<td>73</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facility documents infant feeding rates in patient population</td>
<td>66</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facility provides breastfeeding support to employees</td>
<td>69</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facility does not refuse infants formula free of charge</td>
<td>3</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Breastfeeding is included in site policies</td>
<td>98</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facility has designated staff member responsible for continuation of nutrition care</td>
<td>81</td>
<td>11</td>
</tr>
</tbody>
</table>

*Quality Practice scores range from 0 to 100 for each question, dimension of care, facility, and state. The highest best
Overall, the percent of Illinois women who started breastfeeding increased from 70% in 2000 to almost 78% in 2008.
What stands in the way of breastfeeding for Illinois women?


- White: Didn't Like BF, Other children to care for
- Black: Didn't Like BF, Had to go back to work or school
- Hispanic: Didn't Like BF, I got sick and could not BF
What stands in the way of breastfeeding for Illinois women?

Top 4 Reasons Illinois Women Gave for Why They Stopped Breastfeeding, 2004-2008 Combined, By Race/Ethnicity

- I thought I was not producing enough milk
- Breast milk alone did not satisfy baby
- My baby had difficulty nursing
- I went back to work or school
Odds Ratio of Continuing Breastfeeding for at least 6 Weeks among Initiators

<table>
<thead>
<tr>
<th>Hospital Practice (&quot;no&quot; is reference group)</th>
<th>Adjusted* OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breastfed in the hospital</td>
<td>2.32 (1.89 - 2.84)</td>
</tr>
<tr>
<td>Breastfed in the first hour after delivery</td>
<td>1.79 (1.57 - 2.05)</td>
</tr>
<tr>
<td>Baby fed only breast milk in the hospital</td>
<td>3.42 (2.93 - 3.99)</td>
</tr>
</tbody>
</table>

*adjusted for maternal race/ethnicity, maternal age, maternal education, marital status, parity, WIC participation, and pregnancy intention
## Odds Ratio of Continuing Breastfeeding for at least 6 Weeks among Initiators

<table>
<thead>
<tr>
<th>Hospital Practice (“no” is reference group)</th>
<th>Adjusted* OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital staff gave a breastfeeding support phone number</td>
<td>1.31 (1.10 - 1.57)</td>
</tr>
<tr>
<td>Hospital gave information about breastfeeding</td>
<td>0.90 (0.68 - 1.19)</td>
</tr>
<tr>
<td>Baby stayed in mom's hospital room</td>
<td>1.41 (1.20 - 1.65)</td>
</tr>
<tr>
<td>Hospital helped mom learn to breastfeed</td>
<td>0.85 (0.72 - 1.02)</td>
</tr>
<tr>
<td>Hospital told mother to breastfeed whenever baby wanted it</td>
<td>1.51 (1.29 - 1.77)</td>
</tr>
</tbody>
</table>

*adjusted for maternal race/ethnicity, maternal age, maternal education, marital status, parity, WIC participation, and pregnancy intention
# Odds Ratio of Continuing Breastfeeding for at least 6 Weeks among Initiators

<table>
<thead>
<tr>
<th>Hospital Practice (&quot;no&quot; is reference group)</th>
<th>Adjusted* OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital gave a formula gift pack</td>
<td>0.74 (0.64 - 0.99)</td>
</tr>
<tr>
<td>Baby used pacifier in hospital</td>
<td>0.62 (0.54 - 0.71)</td>
</tr>
</tbody>
</table>

*adjusted for maternal race/ethnicity, maternal age, maternal education, marital status, parity, WIC participation, and pregnancy intention
Effective Hospital Practices

- Practices significantly associated with improved breastfeeding duration for Illinois women were:
  - Breastfeeding in hospital
  - Breastfeeding within first hour after delivery
  - Feeding infant only breast milk in hospital
  - Giving a breastfeeding support phone number
  - Rooming-in
  - Encouraging breastfeeding ‘on-demand’
  - NO formula gift pack
  - NO pacifier use
How Common Are BF-Supportive Practices in Illinois Hospitals?

Illinois Hospital Breastfeeding-Related Practices, 2008

Promotes Breastfeeding

Discourages Breastfeeding

Percent

BF in Hospital  BF in first hour  Exclusive in Hosp  BF support phone #  Rooming-In  Told to BF on demand  Formula Gift Pack  Pacifier Use

Hospital Practice
Outline

• The evidence for breast milk
• Breastfeeding is a national public health priority
• How are we doing in Illinois?
• Key Barriers to breastfeeding
• Interventions to Close the Gap
  • Baby Friendly Initiative at Evanston Hospital
  • The prenatal providers important role
  • Breastfeeding Peer Counselors
Key Barriers to Breastfeeding

- Lack of knowledge
- Poor family and social support
- Social Norms
- Embarrassment
- Employment and Child Care
- Health Services not supportive
Outline

- The evidence for breast milk
- Breastfeeding is a national public health priority
- How are we doing in Illinois?
- Key Barriers to breastfeeding
- Interventions to Close the Gap
  - Baby Friendly Initiative at Evanston Hospital
  - The prenatal providers important role
  - Breastfeeding Peer Counselors
CDC Guide to Breastfeeding Interventions

- Evidence Based Recommendations
  - Maternity Hospitals implement Baby-Friendly Initiatives
  - Breastfeeding Peer Counselors
  - Educating Mothers
  - Support in the work place
  - Professional Support
Baby Friendly Hospital Initiative

- The Baby-Friendly Hospital Initiative (BFHI)
- A global program sponsored by the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) to encourage and recognize hospitals and birthing centers that offer an optimal level of care for infant feeding.
Cook County Department of Public Health
Communities Putting Prevention to Work

- Centers for Disease Control initiative funded by federal stimulus funds

- Goals
  - Elevate standards of breastfeeding practices in suburban Cook County hospitals
  - Increase breastfeeding rates by implementing Baby Friendly practices
10 Steps to Baby Friendly

The Ten Steps To Successful Breastfeeding, as outlined by UNICEF/WHO for the United States are:

1 - Have a written breastfeeding policy that is routinely communicated to all health care staff
2 - Train all health care staff in skills necessary to implement this policy.
3 - Inform all pregnant women about the benefits and management of breastfeeding
4 - Help mothers initiate breastfeeding within one hour of birth
5 - Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants
6 - Give newborn infants no food or drink other than breastmilk, unless medically indicated
7 - Practice “rooming in” -- allow mothers and infants to remain together 24 hours a day
8 - Encourage breastfeeding on demand
9 - Give no pacifiers or artificial nipples to breastfeeding infants
10 - Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic
Baby Friendly at Evanston

- Breastfeeding initiation rate is 94%
- Beginning stage of the Baby Friendly process.
- Entered the Discovery Phase of the Pathway to Baby Friendly Designation.
- Formed a Multi-Disciplinary Committee and have completed a revised breastfeeding policy.
- February 4, 2013 will implement following practices as routine standard of care for all stable infants:
  - Skin to skin 30 minutes in first hour, initiation of breastfeeding first 60 minutes, no separation of mother and infant, breastfeeding without supplementation unless medically indicated, avoidance of pacifiers.
  - Epic will soon capture key breastfeeding data points
Baby Friendly at Evanston

- **Step 1** – Breastfeeding policy revised
- **Step 2** – Staff and provider education is ongoing
- **Step 3** – Prenatal patient education through BF classes
- **Step 4** – Skin to Skin 30 minutes uninterrupted in first hour is goal for all term stable babies
- **Step 5** – How to breastfeed / maintain lactation - support from nurses and LC’s, goal 100% of NICU moms approached with info on pumping, goal to access pump/ start pumping within 6 hrs of delivery.
Baby Friendly at Evanston

- Step 6 – Need continued progress on avoiding supplementation of breastfed babies for non-medical reasons
- Step 7 – Rooming In: need ongoing physician and patient education
- Step 8 – Breastfeeding on demand: continued patient education
- Step 9 – No pacifiers / bottles: ongoing patient education
- Step 10 – Postpartum support: staff nurse, BFC and LC support for inpatients, community info for discharge
Baby Friendly at NWC Hospital

Current initiatives:

- Skin to skin first hour all deliveries
  - 35 to 44% of all deliveries for the last 9 months of 2012
- Initiate breastfeeding in first hour all breastfeeding moms
  - Averaged mid 40% end of 2012, increase 10% in last year
- Increase exclusive breastfeeding rate
  - NWC: 30% in 2011 to the high 40% in 2012
  - Increase rooming in
- Revising breastfeeding policy
- Preparing for Joint Commission Perinatal Core Measure = Exclusive Breastfeeding
Evidenced Based Breastfeeding Hospital Initiative (EBBHI)
2013 IDPH Statewide Perinatal Quality Project
Minimum Statewide Quality Indicators

- **All Infants**
- Provide **Skin to Skin** Contact for at least 30 minutes to all patients without complications regardless of feeding method within 2 hours of delivery
- Promote **24 hour rooming in** to keep mothers and babies together unless medically indicated
- **Breastfeeding Infants**
- **Initiate breastfeeding within 60 minutes** for all uncomplicated vaginal and cesarean births
- Facilitate **breastfeeding on demand**
- Educate and promote patients and families on the benefits of **exclusive breastfeeding**
- Support **exclusive breastfeeding** by avoiding the use of **routine supplementation** of breastfeeding infants through the use of formula, glucose, or water unless medically indicated.
- For mothers who are separated from their babies educate and **initiate breast pumping** as soon as possible post delivery or within 6 hrs
IL Infant Feeding Act

- Every hospital that provides birthing services must adopt an infant feeding policy that promotes breastfeeding. In developing the policy should consider guidance provided by the Baby Friendly Hospital Initiative.
- Policy must be communicated to hospital staff
  - Include guidance for the use of formula if preferred by the mother, when supplementation is medically necessary or when exclusive breastfeeding is contraindicated
- Passed Both Houses May 17, 2012
- Effective January 1, 2013
Outline

• The evidence for breast milk
• Breastfeeding is a national public health priority
• How are we doing in Illinois?
• Key Barriers to breastfeeding
• Interventions to Close the Gap
  • Baby Friendly Initiative at Evanston Hospital
  • The prenatal providers important role
  • Breastfeeding Peer Counselors
ACOG recommendations
ACOG Committee Opinion, 2007

- Prenatal care providers have a substantial influence on a woman’s decision to breastfeed and on her ability and desire to continue breastfeeding. DiGirolamo 2003
- The advice and encouragement of the ob/gyn are critical in making the decision to breastfeed.
- Care providers should educate all women on the health benefits of breastfeeding for her and her child
- Care providers should provide evidence based care practices shown to significantly improve breastfeeding outcomes for women who choose to breastfeed.
During Antenatal Care

- Ask women “What have you heard about breast-feeding? Tailor counseling to specific concerns.
- Communicate and endorse consensus guidelines for breast-feeding: recommend 6 months of exclusive breast-feeding with continuation through 1 year and beyond, as long as mutually desired
- Refer women to antenatal breast-feeding education classes
- Review the safety of maternal medications for lactation
- Do not distribute brochures or gifts by makers of infant formula
Preterm Deliveries

- Counsel mothers that, for preterm infants, “Mother’s milk is medicine”
- When preterm delivery is anticipated, ask “Would you be willing to express milk for your baby while he or she is in the NICU?”
- Advise mothers to initiate milk expression as soon as possible after birth, ideally within 6 hours
- Counsel mothers they may only produce a few drops of colostrum in the first 2-3 days, important for baby.
- Include a physician order to initiate pumping in the postpartum order set to insure pump at bedside.
- Request a lactation consult
Delivery at term

• Include breast-feeding counseling as part of anticipatory guidance during labor. Ask, “What have you heard about breast-feeding?” target education.

• Review recommendation for early breastfeeding (first hour), including skin-to-skin care at birth for all term stable babies, rooming in and feeding on demand.

• Place infants skin to skin after birth and reinforce practice.

• Do not distribute brochures or gifts from formula

• At discharge provide a lactation support phone number
Prenatal Providers Important Role

1) Educate patients that there is evidence of significant health benefits for both mom and baby.
   - ACOG and the AAP recommend 6 months of exclusive breastfeeding given the evidence of clear benefit to mom/baby
   - Women with family / personal history of Breast Cancer, Ovarian Cancer, Diabetes, Obesity, HTN, CAD additional benefit

2) Encourage prenatal breastfeeding classes

3) Ensure that L&D nursing staff are providing 30 minutes of skin to skin for every term healthy newborn (first hour for vaginal delivery, first 2 hours for cesarean delivery)
4) Ensure that L&D nursing staff are assisting breastfeeding moms with latching on in the first hour after delivery.

5) For all moms separated from infants (premature newborns) promote production of breast milk through pumping starting in the first 6 hours after delivery.

6) Promote rooming in, nursing on demand and exclusive breastfeeding post delivery in the hospital as a key to increasing milk production and therefore duration of breastfeeding.

7) Provide all breastfeeding moms with BF support information as part of discharge counseling.
What providers say matters...

- Prenatal: “Are you planning to breastfeed, what do you know about breastfeeding? We now know there are clear long-term health benefits for both mom and baby, ACOG and AAP now recommend a goal 6 months of exclusive BF, prenatal BF classes are a great way to learn more about it.”

- L&D: “After delivery we put all babies skin to skin as soon as we can, it is important to help them adapt and stabilize their breathing and blood sugar and the best way to keep them warm and bond with mom”.

- L&D: “Are you planning to breastfeed? What do you know about breastfeeding? The nurses and LC’s are here to help you. They will help you start nursing as soon as possible after delivery.” “If your baby is going to the NICU it is important to start pumping breastmilk for your baby, the nurses will help you get started within 6 hrs of delivery.”
What providers say matters....

- Postpartum – “How is breastfeeding going, let me know if an LC would be helpful.” “The nurses are encouraging you to keep the baby in the room, avoid formula unless indicated and nurse on demand whenever the baby seems hungry because these steps all help increase your milk supply.” “Breastfeeding can be hard for many moms and babies to get started, we have a lot of support here to help.”

- Discharge – “The Lactation Support Number is___, please call with any breastfeeding questions or concerns. Our goal is to give you the support you need to successfully breastfeed.”
Outline

- The evidence for breast milk
- Breastfeeding is a national public health priority
- How are we doing in Illinois?
- Key Barriers to breastfeeding
- Interventions to Close the Gap
  - Baby Friendly Initiative at Evanston Hospital
  - The prenatal providers important role
  - Breastfeeding Peer Counselors
Breastfeeding Peer Counselors

- Interventions needed to address disparities
  - Only 25% of African-American babies still breastfeeding at 6 months, compared to 42% of Hispanic babies and 42% of white babies (CDC 2007).
  - Rates for mothers participating in WIC, mothers of color (especially African-American mothers), young mothers and unmarried mothers were significantly lower (CDC 2007).
- Counseling and support by a community peer has shown to be an effective method to improve breastfeeding rates for underserved populations.
What are BF Peer Counselors?

- Peer counselors are from the community they serve.
- They have breastfed their own children.
- They are familiar with the community’s culture, language and value system.
- Connectedness translates into effectiveness
Peer Counselors make a difference

- Randomized trials show peer counselor programs increase rates of BF initiation, duration and exclusivity.
- HealthConnect One peer counselor programs have dramatically increased breastfeeding rates
  - Chicago Urban League breastfeeding rates rose from 2% before the project to 82% in a caseload of 463 women;
  - Average breastfeeding initiation rates at TCA Health Inc. rose to 60% from a 5% baseline rate documented in their Healthy Start Evaluation in 2003.

Breastfeeding Peer Counselor Program

- Breastfeeding rates in the PAC Clinic were historically significantly lower than those of Prentice Women’s Hospital as a whole.
  - Hospital survey data prior to the peer counselor program less than 40% of the PAC patients initiated breastfeeding and very few patients were breastfeeding at the 6 week postpartum visit, while breastfeeding initiation rates among the private patients were approximately 85%.
Establishing the Program

- A breastfeeding peer counselor was hired in January 2009 part-time (3 days per week) and expanded to full-time in January 2010.

- The peer counselor was a prior NU PAC clinic patient who completed a 10 week breastfeeding peer counselor training program through Health Connect One (HCO).

- HCO, formerly Chicago Health Connection, is a community-based health training and advocacy organization that promotes the health and well-being of mothers, their children and families in underserved communities.
Peer Counselor Responsibilities

The peer counselor provided:

- breastfeeding counseling and an educational DVD to all prenatal patients at their 1st or 2nd prenatal visit,
- assistance with sign-up for free prenatal education classes,
- leads a monthly free breastfeeding class for patients and families
- post-delivery breastfeeding support in the hospital for all PAC patients,
- support to PAC patients with newborns in the Special Care Nursery,
- phone triage for postpartum patients with breastfeeding questions / concerns,
- assistance obtaining breast pumps,
- support and incentive gifts to breastfeeding patients at the postpartum clinic visit.
Tracking progress

- Chart reviews of 100 serially delivered patients (November – December 2008) were completed prior to program initiation, again after 1 year of a part-time breastfeeding peer counselor program (January - February 2009) and again after 1 year of full-time peer counselor (January-February 2011).

- The peer counselor records counseling visits and breastfeeding outcomes for all patient interactions.
Program Success

- The breastfeeding peer counselor has counseled a total 1240 women from January, 2009 through March 2012.

- For the women who were counseled during their prenatal period 705 women have delivered. Breastfeeding rates for these women are as follows:
  - 85% (605) of women initiated breastfeeding.
  - 38% (272) breastfed exclusively in the hospital.

- The PAC clinic has surpassed Healthy People 2020 goals for breastfeeding initiation (81.9% target).
Program Success

- The breastfeeding peer counselor also carries an intensive caseload of 30 women at any given time. She has served a total of 71 women in her caseload. 100% (71) women have delivered in her caseload.
  - 94% (67) of women initiated breastfeeding.
  - 51% (34) more than half of all the women breastfed exclusively at the hospital.
  - 70% (47) over half of the women continued to breastfeed at 6 weeks.
  - 52% (35) over one quarter of women continued to breastfeed at 3 months.
  - 36% (24) of the women continued to breastfeed at 6 months.
  - 9% (6) of the women continued to breastfeed at 12 months.
Program Success

- Breastfeeding Peer Counselor conducted a total of 267 hospital visits with mothers in the postpartum unit.

- She conducted 38 breastfeeding classes and a total of 566 patients have participated in these classes including PAC patient’s partners, and other family members.

- The baseline chart review found baseline initiation of breastfeeding for the PAC clinic was 39%.

- Repeat chart review after one year of the peer counselor working part-time showed overall breastfeeding initiation rate in the PAC Clinic increased to 52%.
Patients share their experience

• I’m a first time mom and I would like to share a few thoughts about the breastfeeding program at the PAC Clinic. I always thought that breastfeeding is very important for the baby but never knew how much patience and sacrifice that would take. After spending time in the class, going through and reading the materials, watching videos, and talking to a breastfeeding peer counselor, Lakisha Hudson, I found many answers that I was looking for and that just reinforced my believe in the breastfeeding. I thought I was really prepared for everything but after my baby arrived I was completely lost. Lakisha Hudson was the first person to guide me through confusing and at times really painful first days of maternity. As a new mom to a new mom I would strongly recommend to consider spending time in a breastfeeding program to learn all benefits that a program brings.

• The breastfeeding program is a great way to learn how to breastfeed. I really appreciate the help and advice that was given to me by Lakisha. I was given a lot of information and when I delivered my baby she was a life saver because I was having some trouble breastfeeding and she helped me have so much confidence breastfeeding.
By attending the PAC Clinic breastfeeding program I felt I was ready to take breastfeeding on. I was nervous that baby wouldn’t get enough milk but by attending the class I knew I had to keep going and not give up because mom’s milk is the best gift you can give. So at six weeks baby is doing well and gaining weight and it’s all from my milk and that makes me proud. I couldn’t have done it without the encouragement and motivation from the PAC Clinic breastfeeding program.

Breastfeeding is a great experience not just for me but for my daughter. It’s helping her grow and be strong. And that’s the best feeling for me. I’m planning to breastfeed all my kids.
Summary

- Breastfeeding improves short and long-term health outcomes for mom and baby and is cost-effective.
- Socioeconomic and racial / ethnic disparities exist
- Breastfeeding has become a national public health priority
- Key interventions can make a difference to improve breastfeeding success among all groups
- Make a commitment to ensure that breastfeeding support is a consistently available for every mom and baby.
- You can make a significant health difference for your patients, for both moms and babies, by promoting and supporting breastfeeding.
Thank You

- Illinois Chapter of the American Academy of Pediatrics (ICAAP), Communities Putting Prevention to Work Initiative
- Illinois Breastfeeding Blueprint Working Group
References


References

- Stuebe, AM and Schwarz EB. The risks and benefits of infant feeding practices for women and their children. Journal of Perinatology, 2009
- Stuebe AM et al., Duration of Lactation and Incidence of Type 2 Diabetes. JAMA November 23, 2005; 294, 20.
- Schwarz EB et al. Duration of Lactation and Risk Factors for Maternal Cardiovascular Disease, Obstet Gynecol May 2009
References

- Vennemann MM et al. Does breastfeeding reduce the risk of sudden infant death syndrome? Pediatrics 2009, 123