

# Minnesota's Progress Towards Baby-Friendly Hospital Designation: Results from the Infant Feeding Practices Survey



**JULIANN VAN LIEW, MPH**

# WHAT WE KNOW: BREASTFEEDING AND BABY-FRIENDLY



## BREASTFEEDING

- Health benefits for infant and mother
- Cost savings in pediatric and maternal health costs
- Minnesota is not meeting exclusivity and duration goals

## BABY-FRIENDLY

- Reduces racial disparities
- Increases exclusivity and duration of breastfeeding

# RESEARCH QUESTIONS



1. Given the health and cost benefits of breastfeeding, is Minnesota implementing the infant feeding and care practices necessary for increasing our breastfeeding rates?
2. Are Minnesota's maternity centers working towards Baby-Friendly designation?
3. If not, what are the top barriers to implementing the Baby-Friendly Hospital Initiative?
4. Are there rural and urban differences in infant feeding and care practices and in progress towards Baby-Friendly designation?

# METHODS



- **Infant Feeding Practices Survey**  
administered to individuals working on or overseeing the maternity or labor/delivery ward
  - Diversity of respondents, including RNs, LCs, nurse managers and supervisors, directors of nursing, etc.
- **2013: E-mail or phone survey**
  - Response rate: 66 of 92 hospitals (72%)
- **2014: Survey Monkey**
  - Response rate: 94 of 97 maternity centers (97%)

# METHODS



## Measures

- **2013**
  - Infant feeding practices
  - Infant sleeping practices
  - Newborn exam location
  - Implementation of the Ten Steps
  - Baby-Friendly Hospital Initiative status and progress
- **2014 Additional measures**
  - Phase of the BFHI 4D Pathway
  - Maternity center initiate of the BFHI process
  - Barriers to the BFHI process
  - Rural/Urban Status

# METHODS



Maternity centers are unit of analysis

- Descriptive
- Statistical tests
  - Chi square analyses to compare 2013 and 2014 surveys and rural and urban centers
  - Fisher's Exact when cell sizes less than 5
  - Statistical significance defined as two-tailed p value of  $\leq .05$

# RESULTS



**Table 1. Minnesota Maternity Center Infant Feeding and Care Practices, 2013 and 2014**

<b>Maternity Center Characteristics</b>	<b>2013 (n = 66) %</b>	<b>2014 (n = 94) %</b>	<b>P Value*</b>
Designated as Baby-Friendly	3.1	4.3	1.000
Had Initiated the 4D Pathway	25.4	18.0	0.269
Were not working on any of the Ten Steps	31.0	28.7	0.794
Were working on some of the Ten Steps	46.6	39.4	0.413
Were working on all of the Ten Steps	22.4	30.9	0.242
Had an infant feeding policy	80.0	83.0	0.665
Paid for formula	42.4	40.4	0.800
Provided discharge bags with infant formula, formula coupons, or formula branded information	25.8	28.7	0.679
Had a nursery	90.9	85.1	0.275
Most newborn exams were performed in mother's room	78.7	71.3	0.303
Most babies slept in mother's room	79.0	79.8	0.909
*P values from Chi Square tests			

# RESULTS



**Table 2. Progress of Minnesota Maternity Centers on the WHO Ten Steps to Successful Breastfeeding in 2013 and 2014**

<b>WHO Ten Step to Successful Breastfeeding</b>	<b>2013 (n= 66) %</b>	<b>2014 (n = 94) %</b>	<b>P Value*</b>
1. Have a written breastfeeding policy that is routinely communicated to all health care staff	32.8	53.8	0.003
2. Train all health care staff in skills necessary to implement this policy	46.6	51.6	0.566
3. Inform all pregnant women about the benefits and management of breastfeeding	34.5	58.1	0.001
4. Help mothers initiate breastfeeding within one hour of birth	48.3	66.7	0.001
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants	40.0	66.7	0.000
6. Give newborn infants no food or drink other than breastmilk, unless medically indicated	43.1	54.8	0.102
7. Practice rooming in- that is, allow mothers and infants to remain together- 24 hours a day	44.8	62.4	0.005
8. Encourage breastfeeding on demand	36.2	64.5	0.000
9. Give no artificial nipples (bottles) or pacifiers to breastfeeding infants	39.7	48.4	0.266
10. Foster the establishment of breastfeeding groups and refer mothers to them on discharge from the hospital or clinic	36.2	53.8	0.014

\*P values from Chi Square tests



# RESULTS



**Table 3. Initiator of the Baby-Friendly Designation Process in Minnesota Maternity Centers Reported as Being Baby-Friendly Designated or on the 4D Pathway, 2014**

<b>If initiated (n=20), by whom*</b>	<b>% Of Respondents (n=20)</b>
A nurse or nurses with less than five years of experience	0.0
A nurse or nurses with five years of experience or more	60.0
Hospital or birth center administration	55.0
Physician(s)	35.0
Patient(s)	0.0
Lactation Consultant(s)	75.0
Local Breastfeeding Coalition	10.0

\*Respondents could identify more than one initiator, so the total percentage exceeds 100%.

# RESULTS



**Table 4. Barriers to Initiating the Baby-Friendly Designation Process in Minnesota Maternity Centers Not Designated as Baby-Friendly or on the 4D Pathway (n=73), 2014\***

<b>Barrier</b>	<b>Not a barrier (%)</b>	<b>Somewhat of a barrier (%)</b>	<b>A significant barrier (%)</b>	<b>A barrier: somewhat or significant (%)</b>
Cost	14.5	38.7	46.8	<b>85.5</b>
Client preferences	46.8	46.8	6.5	<b>53.3</b>
Lack of administrative support	46.8	41.9	11.3	<b>53.2</b>
Lack of physician support	32.3	53.2	14.5	<b>67.7</b>
Lack of information about the Baby-Friendly Initiative	48.4	35.5	16.1	<b>51.6</b>
Lack of reimbursement for lactation services	33.9	50.0	32.4	<b>82.3</b>
Staff resistance	35.5	56.5	8.1	<b>64.5</b>

\*Respondents could identify more than one initiator, so the total percentage exceeds 100%.

# RESULTS



**Table 5. Minnesota Maternity Center Baby-Friendly Progress, Infant Feeding and Infant Care Practices by Urban and Rural Location, 2014**

<b>Maternity Center Characteristics</b>	<b>Urban (n=40) %</b>	<b>Rural (n=47) %</b>	<b>P Value</b>
Designated as Baby-Friendly	5.0	4.3	1.000
Had initiated the 4D Pathway	32.5	6.4	0.002
Were not working on any of the Ten Steps	15.0	38.3	0.009
Were working on some of the Ten Steps	32.5	44.7	0.246
Were working on all of the Ten Steps	52.5	14.9	0.000
Had an infant feeding policy	90.0	78.7	0.242
Paid for formula	57.5	27.7	0.005
Provided discharge bags with infant formula, formula coupons, or formula branded information	12.5	42.6	0.002
Had a nursery	80.0	91.5	0.211
Most newborn exams were performed in mother's room	82.5	59.6	0.020
Most babies slept in mother's room	82.5	78.7	0.658
*P values from Chi Square tests			

# RESULTS



**Table 6. Progress of Minnesota Maternity Centers on the WHO Ten Steps to Successful Breastfeeding, by Urban and Rural Location, 2014**

<b>WHO Ten Step to Successful Breastfeeding</b>	<b>Urban (n=40) %</b>	<b>Rural (n=47) %</b>	<b>P Value*</b>
1. Have a written breastfeeding policy that is routinely communicated to all health care staff	72.5	42.6	0.005
2. Train all health care staff in skills necessary to implement this policy	67.5	40.4	0.012
3. Inform all pregnant women about the benefits and management of breastfeeding	62.5	51.1	0.381
4. Help mothers initiate breastfeeding within one hour of birth	82.5	55.3	0.007
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants	80.0	55.3	0.015
6. Give newborn infants no food or drink other than breastmilk, unless medically indicated	70.0	42.6	0.010
7. Practice rooming in- that is, allow mothers and infants to remain together- 24 hours a day	80.0	48.9	0.003
8. Encourage breastfeeding on demand	77.5	55.3	0.030
9. Give no artificial nipples (bottles) or pacifiers to breastfeeding infants	67.5	34.0	0.002
10. Foster the establishment of breastfeeding groups and refer mothers to them on discharge from the hospital or clinic	70.0	42.6	0.010
*P values from Chi Square tests			

# DISCUSSION



- **Spring, 2014:**
  - 4 Centers certified, 16 on 4D Pathway
  - 70% working on at least some of the Ten Steps
- **Barriers to Baby-Friendly**
  - Cost
  - Lack of reimbursement for lactation services
  - Lack of physician support
- **Individual initiating Baby-Friendly**
  - Lactation Consultants, senior nurses, and administrators
- **Urban centers making more progress**
  - All Ten Steps
  - 9 Individual steps
  - On the 4D Pathway
  - Paying for formula, discharge bags, exam location

# DISCUSSION



- **Strengths**

- First of its kind to assess Baby-Friendly progress state-wide in Minnesota
- First survey of Ten Steps in 20 years in Minnesota
- Asked questions specifically about the BFHI not asked elsewhere

- **Limitations**

- Diversity of respondents
- Change in survey format between 2013 and 2014
- More points of contacts in 2014 (perhaps reached more centers that are less advanced)

# DISCUSSION



## Next Steps

- Need for advocacy
  - Dissemination of information, especially to rural centers
- Address barriers
  - Cost: educate on actual cost increase per birth and how to be sufficiently reimbursed for lactation services as ACA moves forward
- Several points of potentially effective contact to encourage work on Baby-Friendly