Breastfeeding: A Public Health Perspective

Monica Burnett, MSPH, CHES
Robert Locke, DO, MPH
Disclosures

- Monica Burnett
  - No conflicts of interest
  - The presentation, statements or opinions rendered during this talk are individual to Monica Burnett, MPH CHES, and do not reflect any official position or any other entity

- Robert Locke
  - No conflicts of interest
  - The presentation, statements or opinions rendered during this talk are individual to Robert Locke DO MPH and do not reflect any official position or any other entity
Topic Content

- Why Should Citizens and Public Health Officials Care About Breastfeeding?
- What Actions Improve Breastfeeding Rates?
- What Can Be Accomplished in Delaware?
Why Should Citizens and Public Health Officials Care About Breastfeeding?
Why Care About Breastfeeding?

- Breastfeeding improves health outcomes
- Breastfeeding decreases total health expenditures
- Variability in the rates of breastfeeding contribute to health disparities
- Breastfeeding improves the ability of workers to stay in the workforce and for business to increase productivity
- Breastfeeding is a women’s right issue
Breastfeeding has health benefits and is a modifiable health factor

- Evidence-based interventions increase breastfeeding rates
  - usually requires less investment than other strategies to improve health outcomes
  - associated with improved patient satisfaction with health providers (and possibly insurers)
  - can address health disparities

- Potentially more modifiable than other factors that received state/national-level investment
Breastfeeding: Impact on Health Outcomes
## Impact on Health Outcomes

<table>
<thead>
<tr>
<th>Condition</th>
<th>Risk</th>
<th>Duration of Breast Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>↓ 26 %</td>
<td>&gt; 3 mo exclusive</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>↓ 72 %</td>
<td>&gt; 4 mo exclusive</td>
</tr>
<tr>
<td>Obesity</td>
<td>↓ 24 %</td>
<td>Any breast milk</td>
</tr>
<tr>
<td>Gastroenteritis</td>
<td>↓ 64 %</td>
<td>Any breast milk</td>
</tr>
<tr>
<td>Type 1 diabetes</td>
<td>↓ 30 %</td>
<td>&gt; 3 mo exclusive</td>
</tr>
<tr>
<td>Type 2 diabetes</td>
<td>↓ 40 %</td>
<td>Any breast milk</td>
</tr>
<tr>
<td>Leukemia</td>
<td>↓ 20 %</td>
<td>&gt; 6 mo exclusive</td>
</tr>
<tr>
<td>SIDS</td>
<td>↓ 36%</td>
<td>&gt; 1 mo exclusive</td>
</tr>
<tr>
<td>Necrotizing Enterocolitis (a leading cause of death in premature infants)</td>
<td>↓ 77%</td>
<td>Exclusive breast milk</td>
</tr>
<tr>
<td>RSV Bronchiolitis</td>
<td>↓ 74%</td>
<td>&gt; 4 mo exclusive</td>
</tr>
<tr>
<td>Otitis Media</td>
<td>↓ 50%</td>
<td>&gt; 3 mo exclusive</td>
</tr>
</tbody>
</table>
# Healthcare Cost Savings using Optimal Breastfeeding Rates

<table>
<thead>
<tr>
<th>Disease</th>
<th>90% Exclusive Breastfeeding for 6 months National SAVINGS in Dollars/year ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIDS</td>
<td>4.7 Billion</td>
</tr>
<tr>
<td>Necrotizing Enterocolitis</td>
<td>2.9 Billion</td>
</tr>
<tr>
<td>Pneumonia/Lower Respiratory Infection</td>
<td>2.3 Billion</td>
</tr>
<tr>
<td>Otitis Media (Ear Infections)</td>
<td>0.9 Billion</td>
</tr>
<tr>
<td>Childhood Obesity</td>
<td>0.6 Billion</td>
</tr>
<tr>
<td>Childhood Asthma</td>
<td>0.6 Billion</td>
</tr>
<tr>
<td>Gastroenteritis</td>
<td>0.2 Billion</td>
</tr>
<tr>
<td>Leukemia</td>
<td>0.1 Billion</td>
</tr>
<tr>
<td>Type 1 Diabetes</td>
<td>0.1 Billion</td>
</tr>
<tr>
<td>Potential Cost Savings</td>
<td>$12,000,000,000,000 per year</td>
</tr>
</tbody>
</table>
Direct Health Benefits for Mom

- According to AHRQ review:
  - Reduced risk of developing breast cancer
  - Reduced risk of developing Type II DM
Costs beyond direct healthcare expenditures

- **WIC National Cost of Formula:**
  - $1 billion (approximately)
  - Delaware’s cost if proportional would be $1.5 - $2 million

- **Opportunity Cost**
  - Spending finite pool of money on formula and treatment of avoidable health conditions that could be reduced with breastfeeding
  - Fewer resources for other public health initiatives
Non-healthcare expenditures

- **Employment Security and Worker Productivity**
  - Low breastfeeding rates are associated with higher rates of illness in infancy:
    - GI and respiratory illnesses (diarrhea, colic, colds, ear infections, etc.)
    - Parent (single mom or Mom/Dad) will miss more days of work
      - Affects job performance in a competitive environment
      - For many workers this may affect job security

- **Complex self-fulfilling cycle:**
  - What seems easier (formula feeding) may actually hinder mother-infant/family success
  - Families that are overwhelmed tend to breastfeed less
Breastfeeding Rates in Delaware (%)
Ranks 42nd in Nation

On average, lower income families and African-Americans (Black/non-Hispanic) families have a 20% lower rate of breastfeeding.
How to improve breastfeeding rates?

- Is just a matter of messaging – health communication?
Health Communication Issues

- Framing the Message
  - Most Popular Campaigns:
    - “Breast is Best”
    - “Risks of Formula Feeding”
  - Messages that resonate with healthcare providers do not necessarily resonate with the public
    - Effective messages also differ among ethnicity and social-economic class
Messages that Sound Good to Healthcare Providers

- “Breast is Best”
  - Health benefits of breastfeeding
  - Risks of not breastfeeding

- Well-intentioned campaign fails
  - Messages were not tested with target audience (moms) before campaign was implemented
    - May be effective in sub-populations
      - NICU mothers
      - Well-educated
    - But can be counterproductive
“Breast is Best” and “Risks of Formula”

- Promoting these messages further can be counterproductive
  - “Good Mom/Bad Mom”
    - Good Mom = Mother who breastfeeds
    - Bad Mom = Mother who does not breastfeed
  - Possibility that this message is “maxed out”
  - Potential among non-medical providers
  - Overdependence on health care workers
  - Potential that it crowds out other messages
  - Not an effective message for all ethnic, racial, and income groups
  - Oversimplified behavior choices for moms
    - Ignored the influence of peers, family history, fathers, social environment, workplace/economics, and complications of life
Effective Health Communication

- Understand the audience
- Segment the audience into target groups
- Develop messages that are effective with each target group
Messaging to Educated

- **Best for Babes**
  - Gets more “hits” than AAP

- **Rising Mom’s**
  - Similar success
  - >1 million
  - Social-networking and social marketing

- Moms seek social marketing sites more frequently than typical health sites
Social marketing campaign
- Focus on bonding and love
- Asked low-income AA mothers what was important to them
  - Better relationship with their baby
  - “Bonding with their baby”

WIC program
- Retrained staff to focus on bonding message with mothers
- Promotional and educational materials focus on this aspect
  (health benefits is a secondary message)

Highly successful
- Now incorporated into nutritional and education programs
  related to breastfeeding and breastfeeding success strategies
- WIC Peer Counselors - separate and also highly successful program
Targeting Hospitals

- Hospital practices have great impact breastfeeding initiation and continuation rates
- The “big ticket items” (evidence-based) are:
  - First breastfeeding attempt within 1st hour
  - Maternal-infant rooming 24/7
  - On-demand feedings
  - Quality Breastfeeding advice and staff competency
  - Nurse/Lactation consultant observation of mother-infant feeding success
  - Breastfeeding policy and procedures for infants on WBN with risks (e.g. risks for hypoglycemia, late preterm, etc)
<table>
<thead>
<tr>
<th>Action</th>
<th>1992 (%)</th>
<th>2005 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation of Breastfeeding in 1st hour (or Skin-to-Skin)</td>
<td>52</td>
<td>59</td>
</tr>
<tr>
<td>No supplementation</td>
<td>44</td>
<td>51</td>
</tr>
<tr>
<td>Rooming In</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>Breastfeeding by Demand</td>
<td>31</td>
<td>44</td>
</tr>
</tbody>
</table>
New Strategic Changes to Increase Breastfeeding Rates

- Smarter strategy
  - Public health approach
  - As opposed to a medical argument
- Promote positive health outcomes
  - Increase desire to adopt behavior
  - Create an environment that is conducive to the behavior
## 7 Successful Public Health Campaigns

<table>
<thead>
<tr>
<th>Campaign</th>
<th>Community-Wide Campaigns</th>
<th>Mass-Media Strategies</th>
<th>Laws and Regulations</th>
<th>Provider Reminder Systems</th>
<th>Reducing Costs to Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccinations</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Motor-Vehicle Safety</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>+/-</td>
</tr>
<tr>
<td>Safer Workplaces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control of Infectious Disease</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Stroke and Heart Disease</td>
<td>X</td>
<td>X</td>
<td></td>
<td>+/-</td>
<td></td>
</tr>
<tr>
<td>Safer and Healthier Foods</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Tobacco</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>+/-</td>
<td>X</td>
</tr>
<tr>
<td>Breastfeeding with Target</td>
<td>Updated</td>
<td>New</td>
<td>New</td>
<td>New</td>
<td>New</td>
</tr>
<tr>
<td>Updated New New New New New New</td>
<td>Updated</td>
<td>New</td>
<td>New</td>
<td>New</td>
<td>New</td>
</tr>
</tbody>
</table>
New Advocacy

- Implement community wide campaigns
  - Think about the perspective of the target audience
  - Employ mass-media strategies
  - Engage state coalitions: public and private groups

- Laws and regulations
- Reduce costs to patients
- Reduce costs to business
- Partner with insurers (public/private)
- Form multiple strategic alliances
- Replicate success in other states
  - Oregon has decreased costs and improved health
New Effort: Social Marketing and Marketplace Economics (Carrots/Sticks)

- **Carrots: (Attractive Items)**
  - Re-framing message using public health/social marketing tools
  - Goal: change the environment in which mothers are more likely to choose to breastfeed and able to be successful
  - Stop the “guilt”

- **Sticks: (Consequences – if you don’t)**
  - Legislation – federal
  - Competitive marketplace – if provider/employer/state not doing well they may ‘pay’ in the marketplace

- **Happening at the**
  - Grassroots efforts
  - Employer/Insurer level
  - Federal level: CDC/NIH-OWH/FDA/USDA (e.g. Surgeon General’s Call to Action; CDC global effort, Baby-Friendly Hospital Initiative; Business Case for Breastfeeding; Loving Arms Support, mPINC)
  - We need to make it happen at the Delaware State level
Comprehensive Breastfeeding Support Strategy for Delaware

- Mothers and Families
- Community
- Healthcare
- Workplace
- Public Health Infrastructure
- Surveillance
Mothers and Families

- **Multicomponent strategy**
  - formal breastfeeding education
  - professional support
  - peer support
  - prenatal and postnatal components
  - empower individuals to make informed feeding decisions
Community

- Peer Counseling
  - USDA WIC
  - La Leche League

- Social Marketing
  - Loving Support Makes Breastfeeding Work (USDA)
Healthcare

- Baby Friendly Hospital Initiative
- Joint Commission Perinatal Care Measures
- Training healthcare providers
- Professional lactation support
  - International Board Certified Lactation Consultants (IBCLC)
Baby Friendly Hospital Initiative
The 10 Steps to Successful Breastfeeding

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 a half-hour of birth.
5. Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast-milk, 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 artificial teats or pacifiers 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 Hospitals in the Northeast
# Maternity Care Practices in Infant Nutrition and Care (mPINC)

## Strengths in Breastfeeding Support in Delaware Facilities

<table>
<thead>
<tr>
<th>Strength</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Documentation of Mothers’ Feeding Decisions</strong></td>
<td>Staff at all (100%) facilities in Delaware consistently ask about and record mothers’ infant feeding decisions.</td>
</tr>
<tr>
<td></td>
<td>Standard documentation of infant feeding decisions supports maternal choice.</td>
</tr>
<tr>
<td><strong>Availability of Prenatal Breastfeeding Instruction</strong></td>
<td>Staff at all (100%) facilities in Delaware include breastfeeding education as a routine element of their prenatal classes.</td>
</tr>
<tr>
<td></td>
<td>Prenatal education about breastfeeding is important for mothers with a better understanding of the benefits of breastfeeding, resulting in improved breastfeeding outcomes.</td>
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</tbody>
</table>

## Needed Improvements in Delaware Facilities

<table>
<thead>
<tr>
<th>Need</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appropriate Use of Breastfeeding Supplements</strong></td>
<td>Only 43% of facilities in Delaware adhere to standard clinical practice guidelines against routine supplementation with formula, glucose, water, or water.</td>
</tr>
<tr>
<td></td>
<td>The American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) recommend against routine supplementation by formula and/or water, which makes infants more likely to start and stop breastfeeding prematurely.</td>
</tr>
<tr>
<td><strong>Inclusion of Model Breastfeeding Policy Elements</strong></td>
<td>No (0%) facilities in Delaware have comprehensive breastfeeding policies including all model breastfeeding policy components recommended by the Academy of Breastfeeding Medicine (ABM).</td>
</tr>
<tr>
<td></td>
<td>The ABM model breastfeeding policy elements are based on research on best practices to improve breastfeeding outcomes. Policies consistently have the potential to improve the nature of care that is available to women, regardless of patient population characteristics such as income, and payer status.</td>
</tr>
<tr>
<td><strong>Initiation of Mother and Infant Skin-to-Skin Care</strong></td>
<td>Only 29% of facilities in Delaware initiate skin-to-skin care for at least 30 minutes upon delivery of the newborn.</td>
</tr>
<tr>
<td></td>
<td>Upon delivery, the newborn should be placed immediately in the arms of the mother after birth to maximize skin-to-skin contact for at least 30 minutes. This practice can improve infant health outcomes and reduce the risk of neonatal immune system from unnecessary nosocomial infections.</td>
</tr>
<tr>
<td><strong>Adequate Assessment of Staff Competency</strong></td>
<td>Only 14% of facilities in Delaware annually assess staff competency for basic breastfeeding management and support.</td>
</tr>
<tr>
<td></td>
<td>Implementing comprehensive assessment of staff knowledge and skills in breastfeeding management and support establishes a foundation for improved infant feeding care. Adequate training and skills can ensure that mothers and infants receive care that is consistent and appropriate.</td>
</tr>
</tbody>
</table>
Healthcare

- Baby Friendly Hospital Initiative
- Joint Commission Perinatal Care Measures
- Professional lactation support
  - Training healthcare providers
  - International Board Certified Lactation Consultants (IBCLC)
Workplace

- Paid family leave
- Workplace lactation support programs
  - Business Case for Breastfeeding
- Childcare accommodations
The Business Case for Breastfeeding

- Comprehensive program for employers
  - Highlights value of supporting breastfeeding employees
  - Tools to implement worksite lactation support program
Workplace Support Program

- **Time**
  - Maternity leave
  - Flexible work schedules and breaks

- **Space**

- **Support**
  - Professional lactation support
  - Managerial support

- **Education**
Bottom Line Benefits

- Less absenteeism
- Employee retention
- Healthcare savings
Patient Protection and Affordable Care Act

- Section 4207
- “Break time for Nursing Mothers”
- Reasonable break time
- Private space
Public Health Infrastructure

- State leadership to coordinate promotion and support of breastfeeding
  - Department of Public Health
  - Breastfeeding Coalition of Delaware
  - Milk Banks
Surveillance

- State monitoring system
  - breastfeeding rates
  - policies
- CDC
  - Survey of Maternity Care Practices in Infant Nutrition and Care (mPINC)
  - Breastfeeding Report Card
How can you support breastfeeding in Delaware?

- Mothers and Families
- Community
- Healthcare
- Workplace
- Public Health Infrastructure
- Surveillance