

Breastfeeding Challenges

Impacting the longevity of breastfeeding beyond the hospital

Disclosure of relevant financial relationships in the past 12 months

The Oregon AWHONN Planning Committee members disclosed they have no commercial interest with any entities producing, marketing, reselling, or distributing health care goods or services consumed by, or used on, patients.

I, Debbie Alba, have nothing to disclose:



Objectives and Goals

- . Identify reasons to support breastfeeding duration.
- . Improve understanding of current risk factors for duration rates in breastfeeding.
- . Identify how maternity care practices can impact breastfeeding duration once out of the hospital.
- . Increase understanding of infant anatomical oral assessment

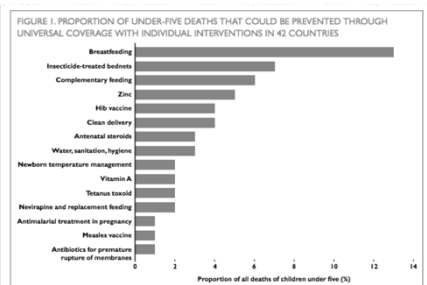
Why do we care
how long babies
breastfeed?



Risks of NOT Breastfeeding: For Infants	
Outcome	Excess Risk (%)
<i>Among full-term infants</i>	
Acute ear infection (otitis media)	100
Eczema (atopic dermatitis)	47
Diarrhea and vomiting (gastrointestinal infection)	178
Hospitalization for lower respiratory tract diseases in the first year	257
Asthma, with family history	67
Asthma, no family history	35
Childhood obesity	32
Type 2 diabetes mellitus	64
Acute lymphocytic leukemia	23
Acute myelogenous leukemia	18
Sudden infant death syndrome	56
<i>Among preterm infants</i>	
Neonrotizing enterocolitis	138

Source: U.S. Department of Health and Human Services, *The Surgeon General's Call to Action to Support Breastfeeding*, Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011.

Can Breastfeeding Save
Lives?



Retrieved from https://fullfact.org/fackchecks/breastfeeding_children_save_lives-28777_2015

Start ≠ Finish

*Initiation rates meet the
World Health
Organization's standard
and the Healthy People
2020 goals of at least 75%
since 2008*

*Duration rates continue to
fall short of goals*



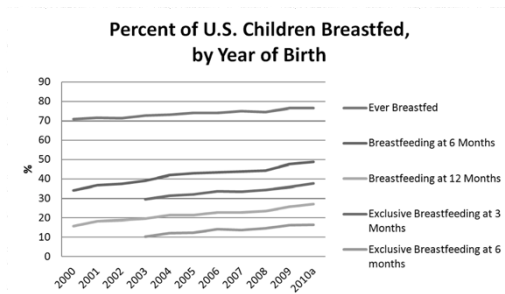
60 % of mothers
who initiated
breastfeeding did
not meet their
breastfeeding
goals
(Odom, 2013)



Current Duration Rates

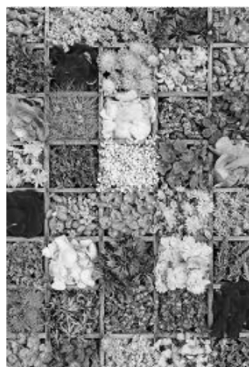
- . 2020 goals are
 - . 81.9 % initiation
 - . 60.6% breastfeeding at 6 months
 - . 34.1 % breastfeeding at 1 year
- . National levels do not meet Healthy People 2010 goals
- . Goals on exclusivity are even farther behind
- . Goals need to be looked at relative to health recommendations

Current Rates of Duration



What can we
do to impact
duration of the
breastfeeding
experience?

*what the evidence tells
us*



Third Summit on Breastfeeding was focused on the **“deplorable duration in spite of improvement in initiation”**(Lawrence, 2011).

- Identified major issues
 - Education of the healthcare providers
 - Patients and a support system in the early weeks postpartum
- Recommended to have a clear focus on 10 Steps for Maternity Care Practices, followed by assuring resources to community based care

Educating Providers

- Baby friendly requirement of 20 hours per direct service provider (RN), 3 hours for OB, Peds, midwives, CNA's, OB techs, secretary, etc
- Outreach to outpatient clinics with good collaboration, especially during first 14 days of life.



Community Based Care

- Utilization of peer support groups
- Follow up phone calls post discharge
- Access to outpatient clinics, IBCLC's in community
- Large use of social media now for breastfeeding difficulties



I Believe..... What Do Mother's Think?

- Odom (2013) study looked at 1177 mothers ages 18 and above.
- surveyed monthly in the first year of life.
- Women who did not meet their breastfeeding goals were more likely to be unmarried, multiparous, less educated and WIC participants.



I Believe.....

Themes were related to :

- . infant nutrition and weight
- . infant health status
- . maternal medication
- . pumping
- . psychological reasons



Stopping associated with not meeting intention, Odom(2013)

REASON	aOR
Trouble suckling or latching on	4.42
Sore, cracked bleeding nipples	2.17
too painful	2.31
engorgement	1.97
infection or abscess	2.0
not enough milk	3.27
breast milk alone did not satisfy baby	1.28
trouble with milk flow	3.34
maternal concerns about weight gain	1.89
healthcare provider concerns about weight gain	3.04
maternal illness or need to medicate	2.22
illness in infant	2.32
pumping no longer seemed worth the effort	1.47

Breastfeeding Duration Variables

What Does a Systematic review of literature say?

(Thulier and Mercer, 2009)

Variables can be organized into groups:

- . Demographic
- . Psychological
- . Biological
- . Social



Demographic Variables

(Thulier and Mercer, 2009)

Race
Age
Marital Status
Level of Education
Socioeconomic Status
WIC Status



Racial Disparity

Initiation and duration rates for breastfeeding are 16% lower among black infants than among white

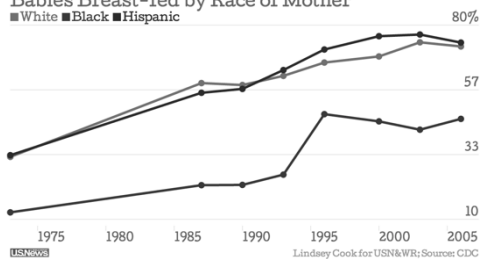
(MMWR 2013)



Racial Disparity

Babies Breast-fed by Race of Mother

■ White ■ Black ■ Hispanic



Racial Disparity

- 2011 CDC study looked at maternity care practices in relationship to racial percentage of black residents (Lind, 2014)
- results showed that in areas where >12.2 % black residents, hospitals were less likely to meet 5 of the 10 mPINC indicators.
- largest differences were related to early initiation of breastfeeding, supplementation use and rooming in.

This study shows the relationship between breastfeeding rates, access to evidence based maternity care practices and the racial composition of the area.

WIC Status or Formula Access?

- Participation or enrollment in WIC was the strongest negative determinant of breastfeeding success (Ryan and Zhou, 2006). Correlation most likely related to access to formula. Results prompted changes in WIC practice
- Women who receive hospital discharge packs are less likely to exclusively breastfeed past 10 weeks (Rosenberg, 2008)

Demographics are not variables that we can control for

They help us identify high risk mothers



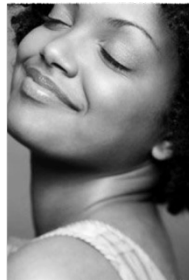
psychological variables

*maternal attitude
maternal confidence*



Maternal Attitude

A positive attitude
towards
breastfeeding is
associated with a
longer duration



Maternal Attitude

- Brown (2013) looked at personality traits. Found that **extroversion, emotional stability, and conscientiousness** were associated with higher initiation and duration rates of breastfeeding.
- Characteristics of **introversion and anxiety** were negatively associated with initiation and duration-**less likely to seek help at difficult times**

Maternal Confidence

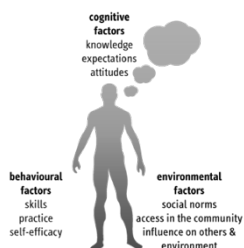
Breastfeeding self efficacy has been shown to be a significant determinant of breastfeeding duration and ability to achieve breastfeeding goals



Self Efficacy

- Wu, et al (2013) looked at self efficacy interventions in relation to breastfeeding duration
- Those that received self efficacy sessions had a significantly higher rate of exclusivity and duration.
- Higher baseline self efficacy was also predictive of longer breastfeeding duration

Building Self Efficacy



Social Cognitive Theory

Bandura

Bandura's Social Cognitive Theory, Source Ahmed Asim

Social Interventions

- identify women at risk for negative attitude (introversion, anxiety) and low self efficacy- assure additional support
- identify opportunities to build self efficacy.
- assure good follow up after hospital discharge



Biological Variables

*Intrapartum Experience
Maternal Physical Problems
Infant Physical Problems*



Intrapartum Experience

A woman's experience in labor directly impacts her breastfeeding experience and sets up the level of resilience postpartum.



- Route of Deliver
- Delivery complications
- Medications

Route of delivery

- Induced or emergency cesarean deliveries tend to have longer labors with higher levels of analgesia and anesthesia.
- May be a delay in mother infant bonding, first feeding
- Increased maternal and infant fatigue

Route of delivery

- Ahluwalia (2012) showed a significant association between route of delivery and duration of breastfeeding
- Lowest prevalence of breastfeeding after 60 weeks was for women who had an *induced vaginal delivery or an emergency cesarean delivery*
- Planned cesarean was not significant

Delivery complications

- Bai, et al (2013) looked at intrapartum interventions and breastfeeding duration also
- Found that although individual interventions (induced labor, emergency cesarean, opioid pain medication=top 3) had no significant impact, mothers that **experienced multiple interventions** were associated with a reduction in duration.

Delivery Complications

Risk factors for decreased duration include:

- . Induced vaginal deliveries and emergency cesareans
- . Physical discomfort associated with difficulty deliveries
- . Multiple interventions during labor

Medications during labor

- . Difficult deliveries are associated with increased use of analgesia and anesthesia during labor
- . Cesarean deliveries and perineal tears also are associated with increased use of opioids post delivery.



Opioids

- . Associated with infant sucking difficulty, increased sedation, and respiratory distress in several case studies and anecdotal reports. Poor valid research on true transfer and impact on infants at this time.
- . Hendrickson & Mckeown (2012) state that "although mild symptoms, including minor alterations in wakefulness, may occur, cases of severe toxicity are rare".

Opioids

- Low molecular weight (passes across blood-alveolar membrane)
- Low protein binding for oxycodone and hydrocodone; high for methadone, buprenorphine
- Most cases were with codeine.
- One case with oxycodone, not related to breast milk intake.

Recommendations

(Hendrickson & Mckeown, 2012)

- Consider if pain medication is necessary. If it is, use non-narcotic drugs for baseline pain management.
- Avoid codeine for long-term therapy
- Avoid high-dose opioids- use the lowest effective dose
- Take particular caution during the first two weeks postpartum.

Oxytocin and Ergometrine

- Used for induction of labor and prevention of postpartum hemorrhage
- Ergometrine is a dopamine antagonist (reduces prolactin levels)
- Oxytocin administration disrupts the hormonal balance

Oxytocin and Ergometrine

- Postpartum use was associated with 6-8% reduction in breastfeeding at 48 hours, independent of whether oxytocin used alone or in combination (Jordan, et al., 2009)
- Jordan and Brown conducted a follow up study in 2014 with similar results, looking at women from 2 weeks to 6 months postpartum.
- most common reasons for stopping breastfeeding were **pain, difficulty and embarrassment.**

Oxytocin and Ergometrine

- Recent study by Olza Fernandez, et al. (2015) looked at oxytocin administration for induction of labor in relation to infant feeding reflexes.
- Found a significant correlation between mothers who received high doses of oxytocin during labor and poor interest in feeding and feeding reflexes during the first 2 days of life.



Epidural anesthesia

- Some research has associated epidurals with delayed onset of lactation and perception of insufficient milk supply
- Studies have not been strong, contradictory results.
- Need more research in this area.

Aiding moms with difficult deliveries

- Assure early skin to skin and regular access to the breast (belly band)
- Do all assessment and medication administration on mother if infant is medically stable
- manage pain with least amount of narcotic possible
- Provide additional lactation support post discharge



Maternal Physical Challenges

- Nipple shape
- Obesity
- Fatigue and pain



Insufficient milk supply

=2nd most common reason women wean prematurely (perceived or real)

- PERCEPTION of insufficient milk supply is the actual problem in most cases
- Approximately 5% of women have a biological reason why they cannot produce enough milk

THERE IS A UNIVERSAL DESIRE TO ASSURE ADEQUATE INTAKE IN THE INFANT

Insufficient milk supply

- PERCEIVED inadequacy often leads to ANXIETY about having enough milk, resulting in UNNECESSARY SUPPLEMENTATION
- establishing a robust milk supply is dependent on early and frequent milk removal.
- using an effective breastfeeding infant, hand expression and/or a breast pump in the early days sets a dyad up for success with breastfeeding duration.

TYPICAL NEWBORN FEEDING PATTERNS

DAY TIME:	NUMBER OF BREASTFEEDS	BEHAVIORS	WET DIAPERS	STOOLS	TYPE
1 —	6+ □□□□□□	BABY: Tiny Tummy, sleepy, quiet swallows PARENTS: Sleepy, Learning	1 □	1 □	Black, sticky
2 —	8+ □□□□□□□□	BABY: Tiny Tummy, more wakeful, quiet swallows PARENTS: Tired, worried about baby getting enough	2 □□	1-2 □□	Black/Brown
3 —	ALL DAY CAFÉ! 10-12 □□□□□□ □□□□□□	BABY: Tummy expanding, baby very interested in feeding, fussy PARENTS: Tired, teary, worried about baby getting enough, mom's nipples may be slightly sore	3 □ □ □	2-3 □ □ □	Brown/Green
4 —	MILK IN !! 8-10 □□□□□□□□	BABY: More settled after feeding, feedings may be shorter, gurgling PARENTS: Mom's breasts full, parents more confident about baby getting enough	4 □ □ □ □	2-4 □□□□	Green/Yellow
5 —	HOME & HAPPY 8+ □□□□ □□□□	BABY: Continues to feed every 2-3 hours w/ occasional cluster feeding PARENTS: Becoming more confident and comfortable with baby and breastfeeding	6-8 □ □ □ □ □ □ □ □	3+ □□□□	Yellow/Seedy

Do Not Restrict Your Baby From Breastfeeding.

If You Are Having Difficulty With Your Baby For Feeding, Ask For Assistance. ☺

GUIDELINES FOR NURSING MOTHERS

Your Baby's Age	1 WEEK			2 WEEKS			3 WEEKS		
1 DAY	2 DAYS	3 DAYS	4 DAYS	5 DAYS	6 DAYS	7 DAYS	8 DAYS	9 DAYS	
How often Should You Breastfeed? Per day, on average over 24 hours									
At least 8 feeds per day (every 1 to 3 hours). Your baby is sucking strongly, slowly, steadily and coordinating often.									
Your Baby's Tummy Size									
Size of a cherry Size of a walnut Size of an apricot Size of an egg									
Wet Diapers: How Many, How Wet Per day, on average over 24 hours									
At least 1 WET At least 2 WET At least 3 WET At least 4 WET At least 5 WET At least 6 WET At least 7 WET At least 8 WET									
Soiled Diapers: Number and Colour of Stools Per day, on average over 24 hours									
At least 1 to 3 BLACK OR DARK GREEN At least 3 BROWN, LIGHT, OR YELLOW At least 3 large, soft and sandy YELLOW									
Your Baby's Weight	Babies lose an average of 7% of their birth weight in the first 3 days after birth.				From Day 4 onward your baby should gain 20 to 35g per day (5 to 10 oz) and regain his or her birth weight by 10 to 14 days.				
Other Signs	Your baby should have a strong cry, move actively and wake easily. Your breasts feel softer and less full after breastfeeding.								
Recent with all the feed a baby needs for the first six months – all six baby age groups including introducing solids while continuing to breastfeed until over two years of age! (BMJ, 2016; Canadian Paediatric Society, 2016)									
Where you need your doctor, nurse, or midwife. See the Health Department website for more information. Call WFO 811 or 800-265-1154 for your breastfeeding support. Call La Leche League Canada (Canadian Society) 1-800-665-4324.									

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best start
milkstart
diaper

Breast milk is all the food a baby needs for the first six months — At six months of age begin introducing solid foods while continuing to breastfeed until age two or older. (WHO, UNICEF, Canadian Pediatric Society)
If you need help ask your doctor, nurse, or midwife, to find the health department nearest you, call INFO line: 1-800-268-1154. For peer breastfeeding support call La Leche League Canada National Service: 1-800-445-4124. 03/10/07

Responding to maternal requests for formula

- PROVIDE education
Related TO WEIGHT LOSS,
NORMAL NEWBORN
FEEDING BEHAVIOR FOR
AGE
- Counsel family on concerns,
listening to what they identify
as priority issues.



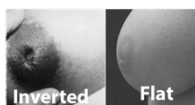
What about time at the RN station???

- Why could this be
problematic for
breastfeeding duration?
- Baby friendly guidelines
include separation no longer
than 1 hour.
- What to do with exhausted
parents??



Poor Milk Removal- Is it the nipple?

- Everyone's nipples are different
- Main issue is whether the infant can grasp and hold the tissue
- Breast firmness is more important than nipple shape
- True inversion can be difficult



Maternal Obesity

- Interferes with hormonal balance due to high adipose tissue, higher levels of estrogen
- Places mom at risk for delay in Lactogenesis II
- Can pose difficulty for latching due to excess breast tissue and weight



Parity

- DURATION INCREASES WITH INCREASED PARITY
- Duration is impacted by past breastfeeding experiences
- Bai, et al in 2015 looked at previous breastfeeding experience and exclusivity and duration.
 - women that breastfed for <3 months had a significantly higher risk of early weaning than those that breastfed >3 months or had no experience.

Maternal Physical Challenges Summary

Risk factors include:

- inverted, difficult to grasp breast tissue
- poor early milk removal
- obesity
- history of difficult breastfeeding,

Infant health problems

*Infant sucking difficulty
Anatomical Variations
Prematurity and SGA
status*



Infant Health problems

- . Infant will not prioritize feeding if they are distressed post- delivery
- . Can lead to poor milk removal and mother-infant separation
- . Increase maternal stress and anxiety
- . *Must protect the milk supply through pumping if infant is not able to feed well and frequently!*

Infant Sucking Difficulty

- . Labor medications
- . Labor sequelae (asymmetry, pain, fatigue)
- . infant anatomical variations
- . persistent coordination issues (Down's syndrome)



Anatomical Variations and Breastfeeding

- Significant early pain should be evaluated for anatomical abnormalities
- First work on latch and positioning, then look at anatomy.
- Important to keep perspective of normal coordination issues from delivery complications

Anatomical Variations

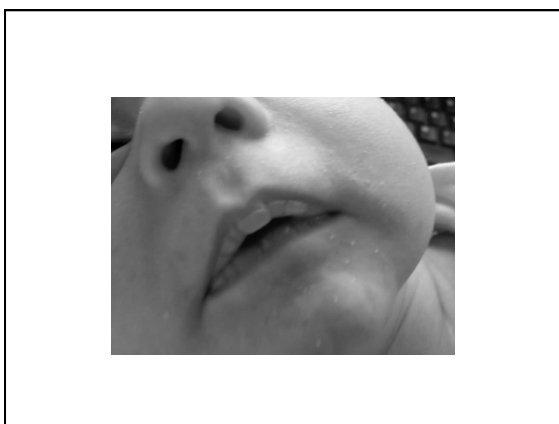
- High palate
- Labial and lingual frenulum (anterior and posterior), aka tongue tie
- Poor oral tone
- Micro or macroglossia
- Poor buccal pads related to SGA or low birth weight status

Anatomical Variations

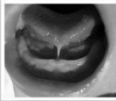
- Function is related to ability to grasp and hold the breast without compromising the central groove of the tongue
- Mid-line facial development affects the tongue, roof of the mouth, and the chin.









***Kotlow Diagnostic criteria (one) for clinically apparent tongue-ties in infants**



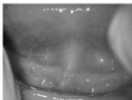
****Type I (*4LK) -total tip involvement**



Type -II (*3LK) Midline-area under tongue (creating a hump or cupping of the tongue)

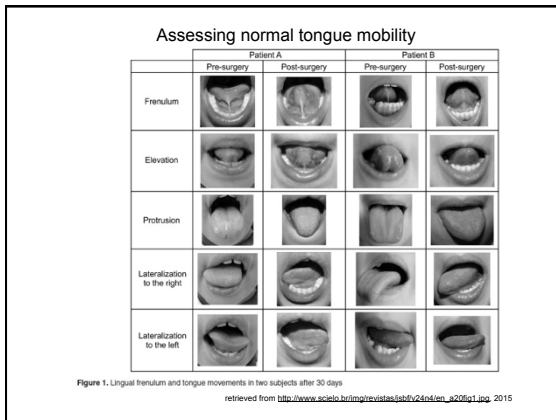


Type III (*2LK) Distal to the midline. The tongue may appear normal



Type IV (*1LK) Posterior area which may not be obvious and only palpable. Some are submucosally located

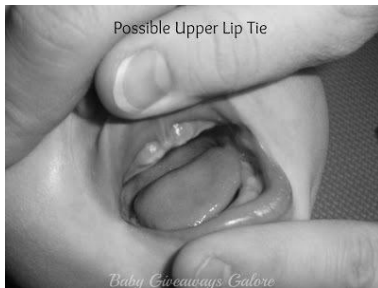
**Lactation consultants diagnostic criteria
Lactancia Kohn 2015

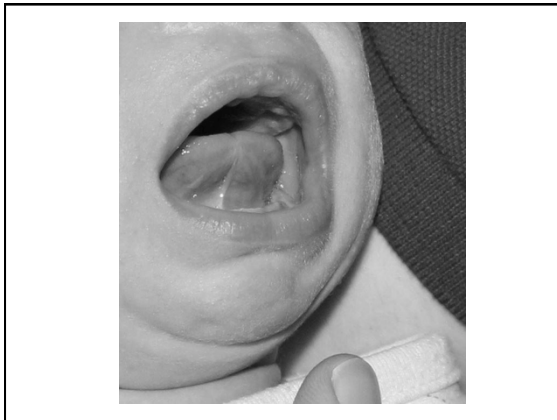


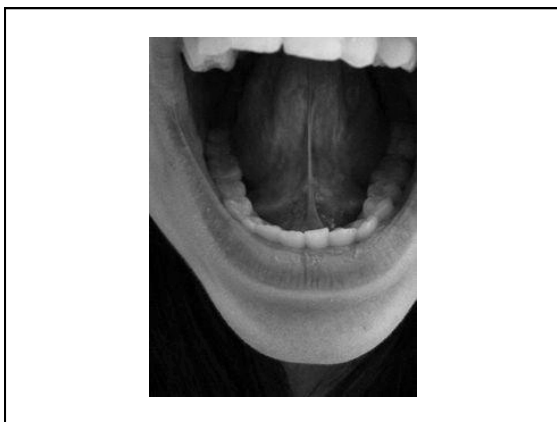
poor lift (cupping of tongue) and high palate



Possible Upper Lip Tie







Anatomical Variations

Red Flags:

- compressed nipple (lip stick shape) after feeding
- early difficulty in latching that does not improve
- breaks in suction, especially with milk flow
- inability to maintain depth of latch
- poor weight gain



Anatomy is only an issue if Causes trouble

- maternal pain,
- difficulty latching or sustaining a latch
- ineffective milk transfer.



Anatomical Variations

- look at appearance, and then look even closer at function.
- Only correct **significant** tongue tie in the hospital. Often, function changes over the first week as infants stabilize and milk flow increases.
- All parents with identified infant oral variations should be educated and provided with follow up resources and instructed to call if issues persist.

Prematurity and SGA status

- Defined as infants under 36 6/7 weeks, under 2000 grams.
- Biggest issue is that they tire more easily
- Can be uncoordinated, inconsistent in effectiveness
 - Provide support for pumping within 24 hours, assure pump at discharge
- Help parents to understand process of brain maturity and how it relates to ability to feed consistently

Social Variables

(Thulier and Mercer, 2006)

returning to work
partner support
family support
healthcare provider support



Working and Breastfeeding

- Returning to work is a significant risk factor for early weaning
- Multiple studies have shown a correlation between decreased duration and exclusive breastfeeding and returning to work
- Bai Study (2015)

Partner Support

- Positive support from partners has been shown to increase duration of breastfeeding in multiple studies.
- Related also to partner's level of knowledge in preventing and managing common lactation problems (Pisacane et al, 2005)



Family and Peer Support

- Includes extended family and close friends
- Lots of research on the benefits of peer counseling and breastfeeding duration.
- Women feel that the longer they breastfeed the less support they perceive from others (Rempel, 2004)



Professional Support

- **Consistent skilled professional support** has a positive influence on duration of breastfeeding
- Inconsistencies in care are related to need for “buy in”, maternal desire for individual care, and time restraints (Nelson, 2007)
- Access to care from prenatal to weaning from IBCLC’s is not guaranteed in many communities

Oregon Laws Protecting Breastfeeding Mothers

- Rest Break for Milk Expression
- Breastfeeding in Public



Affordable Care Act and Breastfeeding

- Requires health plans to cover breastfeeding support and supplies without co-payments, deductibles, or co-insurance, for the duration of the breastfeeding experience
- Allows for limitations of coverage

OMAP and Oregon WIC

- State OMAP, WIC and community partners are working to assure access to all Oregonians
- Revising ORS defining medical need service and supplies
- Allowed under v24.1 code, supervision of lactation
- Allows for lactation consultation for first 6 months



Assuring Social Support

- Train providers that provide care in the hospital that align with Baby Friendly recommendations
- Educate family members as to basic breastfeeding challenges and solutions
- Wrap around families with a variety of support but assure consistent access to skilled lactation consultants and positive peer support and **make sure families know who to call**
- Educate families as to their legal right related to state laws and the ACA

Summary



- Breastfeeding duration is impacted by demographic, biologic, social and psychological factors.
- As nurses, we can impact some of these in the interaction with our patients, but not all.
- Expanding provider education is crucial to increasing duration
- The real work is helping to change the social factors that set up our community support system and expectations once they are out of the hospital.

“You cannot empower people.
People have to become
empowered”

Kittie Ernst



Set up an environment that
protects and values the
breastfeeding process. The
family does the work from
there.

Thank You!



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