BREASTFEEDING PROMOTION AND SUPPORT MODULE

Breastfeeding Promotion & Support Module

Contents

Introduction ... vii

Part 1: Why WIC Promotes and Supports Breastfeeding ... **1-1**

Objectives ... 1-1

The Importance of Breastfeeding ... 1-2

The History of Infant Feeding ... 1-2

The Evidence ... 1-3

National and International Initiatives to Improve Breastfeeding Rates ... 1-5

The 2011 Surgeon General's Call to Action to Support Breastfeeding ... 1-6

WHO/UNICEF Ten Steps to Successful Breastfeeding ... 1-7

Texas Initiatives to Improve Breastfeeding Rates ... 1-8

How WIC Supports Breastfeeding ... 1-10

Part 2: Milk Production and Components ... **2-1**

Objectives ... 2-1

The Lactating Breast ... 2-2

Breastfeeding Hormones ... 2-4

How the Body Makes Milk ... 2-4

Every Mom is Different ... 2-5

Breastmilk vs Formula ... 2-7

The Critical Missing Pieces ... 2-10

Part 3: Creating a Breastfeeding-Friendly Environment ... **3-1**

Objectives ... 3-1

Feelings About Breastfeeding ... 3-2

But What If I'm Not an Expert? ... 3-4

All WIC Staff are Important ... 3-4

First Impressions ... 3-6

Part 4: Communicating with WIC Families About Breastfeeding 4-1

Objectives 4-1

Building Client Relationships 4-2

Common Breastfeeding Barriers 4-5

Build Confidence at Every Opportunity 4-11

When Breastfeeding is Not Recommended 4-12

Part 5: Getting Started 5-1

Objectives 5-1

The First Hour after Birth 5-2

Skin to Skin 5-3

The First Milk-Colostrum 5-3

Feedings Start Small 5-4

Breastfeeding Positions 5-4

Attaching to the Breast (Latch) 5-5

Breast Fullness 5-5

Hand Expression of Breastmilk 5-6

Signs of Hunger and Fullness 5-6

How Often to Feed 5-7

Sleepy Babies 5-7

How to Know if a Baby is Getting Enough 5-8

Growth Spurts 5-8

Multiples 5-9

Safe Sleep 5-9

Mom's Needs 5-9

Building Confidence in Mothers 5-10

Part 6: Postpartum Support for the Breastfeeding Dyad 6-1

Objectives 6-1

Providing Timely Support 6-2

Addressing Early Postpartum Concerns 6-2

Understanding Infant Behavior 6-3

Medication and Breastfeeding 6-6

Family Planning and Breastfeeding 6-6

Nutrition and Exercise 6-7

Part 7: Supporting Mothers and Babies Who are Separated 7-1

Objectives 7-1

Reasons for Separation During the Newborn Period 7-2

Supporting the Mother During Separation 7-4

Breastfeeding and Returning to Work or School 7-5

Baby-led Bottle-Feeding 7-10

Part 8: Helping Mothers Continue the Breastfeeding Relationship 8-1

Objectives 8-1

Normal Growth of Babies 8-2

Extra Milk 8-3

Teething 8-3

Introducing Solid Foods to a Breastfed Baby 8-4

Nursing Strikes 8-4

Breastfeeding While Pregnant 8-5

Tandem Nursing 8-5

Weaning 8-6

Types of Weaning 8-6

Talking to Moms About Weaning 8-7

Appendix A-1

Glossary G-1

References R-1

Answer Key K-1

Tables

1.1 Health Benefits of Breastfeeding for Infants, Mothers, and Communities 1-4

1.2 Surgeon General's Implementation Strategies that Apply to WIC 1-6

5.1 Nine Stages of New Baby Behavior 5-2

5.2 Approximate Number of Feedings and Wet/Dry Diapers Expected for Newborns 5-8

6.1 Expected Normal Infant Behaviors and Cues 6-4

6.2 Types of Infant States, Behaviors and Proper Responses 6-5

7.1 Milk Storage Guidelines 7-8

8.1 Expected Weight Gain for Normal, Healthy Infants 8-2

8.2 Types of Weaning 8-7

Figures

1.1 Texas Vital Statistics, Provisional Live Births, 2009. Newborn Screening, 2009 1-9

2.1 The Lactating Breast 2-3

2.2 Ingredients Found in Breastmilk and Formula 2-7

2.3 Ingredients Not Found in Formula 2-10

About this Module

Introduction

The purpose of this module is to provide WIC staff with basic knowledge, attitudes, and skills regarding breastfeeding promotion and support. Upon completing this module, staff will be able to express an understanding that breastfeeding is important for optimal child and maternal health and will be able to promote this in daily interactions with clients. Staff providing client centered nutrition education and/or counseling to mothers and to parents and caregivers of young children may complete this module as part of their overall training program.

The Breastfeeding Promotion & Support Module has two components: 1) the Breastfeeding Promotion & Support Module which contains the main text, and 2) the Breastfeeding Promotion & Support Workbook, which contains the activities and test questions.

How to Use the Breastfeeding Promotion and Support Module

This module contains eight parts. As you read through each part, the following icons will prompt you to stop and go to your workbook to complete the activities and test questions.

Activity Icon - When you see this icon, stop where you are and complete the corresponding activity in the Breastfeeding Promotion and Support Workbook.

Test Icon - When you see this icon in the module, stop and complete the corresponding test questions in the Breastfeeding Promotion and Support Workbook.

Terms that appear in bold type in the text are defined in the glossary in the back of the module. There is a single Reference List in the back of the module that contains all the references cited throughout the text.

Why WIC Promotes and Supports Breastfeeding

Part 1

Breastfeeding is a basic, simple, cost-effective measure in establishing the best possible health for a lifetime. Breastfeeding should be protected, promoted and supported as it reduces healthcare costs and environmental impact and leads to a stronger, more productive population. All pregnant and new moms should be encouraged to breastfeed and supported in their breastfeeding efforts to help them reach their breastfeeding goals.

Objectives

After reading Part 1, you'll be able to:

- Identify risks of not breastfeeding for babies and mothers.
- Identify national, international and state initiatives that aim to improve breastfeeding outcomes.
- Recognize various ways in which WIC promotes and supports breastfeeding.

The Importance of Breastfeeding

WIC's goal is to safe guard the health of women, infants and children. WIC promotes breastfeeding as the optimal infant feeding method because of the many health benefits and protection breastfeeding provides infants and their mothers. WIC's focus is to help mothers make an informed choice about how to feed their babies by providing accurate education on the advantages of breastfeeding over formula-feeding, guidance on what mothers should expect, and appropriate support.

The History of Infant Feeding

Human babies thrived only on human milk, either from their own mothers or "wet nurses," until 1867 when the first breastmilk substitute, or formula, was produced and sold to a small number of families. The substitute was developed based on the theory that food was made up of only three nutrients — protein, fat and carbohydrates (Levenstein 1988). Most babies did not grow well and many babies died because the formula was missing nutrients required for infant growth.

In an attempt to make infant formulas more like human breastmilk, additional nutrients were added to them over the years. The improved formulas combined with heavy advertising from the formula companies caused many health care professionals to believe that the new formulas were just as good as breastmilk. These advertisements directly targeted women who wanted more freedom with raising children. United States breastfeeding rates declined to an all time low in 1971 (Wolf 2003) and stayed low through the 1980s as more women entered the work force.

As national breastfeeding rates decreased, studies researching the benefits of human milk began to grow at a very fast pace. The studies revealed new important components of human milk and health benefits associated with breastfeeding that the scientific community had never known. With the growing support of research studies, the evidence has proven that human milk is the healthiest choice for babies, mothers, and society.

Today, more than three out of four women breastfeed their children. WIC must provide cients with the support they need to help them reach their breastfeeding goals.

The Evidence

Feeding babies their mother's milk is how nature intended human babies to be fed and leads to the best possible health and development. The Agency for Healthcare Research and Quality's 2007 review of health outcomes associated with breastfeeding concluded that infants who are breastfed and mothers who breastfeed are at reduced risk for many illnesses. A 2007 study conducted for the World Health Organization drew similar conclusions and further determined that children who are not breastfed experience additional health risks. Table 1.1 shows the health benefits of breastfeeding for infants, mothers, and communities.

Table 1-1: Health Benefits of Breastfeeding for Infants, Mothers, and Communities

Infants

Breastfeeding reduces the risk of:

- Ear infections
- Hospitalization for severe lower respiratory infections
- Gastroenteritis (stomach upset, diarrhea)
- Type 1 diabetes
- Type 2 diabetes
- Obesity (in childhood or adulthood)
- Asthma
- Atopic dermatitis (a type of allergic skin disorder)
- Childhood leukemia (cancer)
- Sudden infant death syndrome (SIDS)
- Necrotizing enterocolitis (a devastating disease of the gut)
- High blood pressure
- High cholesterol

Other breastfeeding benefits:
Infants who are not breastfed also have lower performance on intelligence tests.

Mothers

Breastfeeding is associated with a reduced risk of:

- Type 2 diabetes
- Breast cancer
- Ovarian cancer
- Postpartum depression
- Cardiovascular disease

Other breastfeeding benefits:
Breastfeeding burns up to 600 calories per day and reduces a mother's risk for postpartum overweight (Hale 2007). Breastfeeding releases natural hormones that relax moms and create intense bonds between moms and their babies. It also makes traveling, or getting out of the house, easier for moms.

Families and Communities

Breastfeeding (Ball 2007):

- Saves money in formula
- Saves money in health care costs
- Uses a natural resource
- Lowers absenteeism (from work or school)
- Improves school performance
- Creates a more productive current and future work force
- Lowers the burden of chronic disease on society

WIC joins all major health authorities in recommending that infants, with rare exception, receive no other food or drink besides breastmilk for about the first six months of life with continued breastfeeding for at least one year of life. Doing so maximizes the health benefits of breastfeeding for both the mother and the infant which translates to decreased cost in health care. Breastfeeding beyond one year of life should be supported for as long as mother and infant desire to breastfeed.

National and International Initiatives to Improve Breastfeeding Rates

Healthy People 2020 Breastfeeding Objectives

The Healthy People initiative provides science-based objectives every 10 years for promoting health and preventing disease in the United States. The Healthy People plan is designed to help increase quality and years of healthy life and eliminate **health disparities**. Since 1979, Healthy People has set and monitored national objectives to meet a broad range of health needs. Breastfeeding promotion and support is one of many focus areas that are being monitored.

By 2020 breastfeeding objectives are:

- Increase the proportion of mothers who breastfeed to —
    - 82% ever breastfed (initiating).
    - 61% breastfeeding at 6 months.
    - 34% breastfeeding at 1 year.
    - 46% exclusively breastfeeding at 3 months.
    - 26% exclusive breastfeeding at 6 months.
- Increase the percentage of employers who have worksite lactation programs to 38%.
- Decrease the percentage of breastfed newborns who receive formula supplementation within the first 2 days of life to 14%.
- Increase the percentage of live births that occur in facilities that provide recommended care for lactating mothers and their babies to 8%.

Cost Savings Analysis
A 2010 cost analysis based on just some of the 2007 AHRQ review findings concluded that if 90% of U.S. families could breastfeed exclusively for six months, the United States would save a minimum of $13 billion and prevent an excess of 911 deaths per year, nearly all of which would be in infants.

(Bartick, 2010)

The 2011 Surgeon General's Call to Action to Support Breastfeeding

The United States Surgeon General's call to action outlines steps that can be taken to remove some of the obstacles faced by women who want to breastfeed their babies. Table 1.2 shows implementation strategies that apply to WIC breastfeeding promotion and support and ways WIC staff can apply those strategies. Local agencies can use these strategies to guide breastfeeding promotion efforts or start new initiatives to increase the breastfeeding rates in their area.

Table 1.2: Surgeon General's Implementation Strategies that Apply to WIC

Implementation Strategies	What WIC Can Do
Give mothers the support they need to breastfeed their babies.	Educate moms prenatally on what to expect and provide timely support in the postpartum period. Operate a 24/7 breastfeeding help line. Offer in-hospital breastfeeding support, breast pump deliveries and postpartum breastfeeding support groups.
Include fathers and grandmothers in breastfeeding education.	Invite fathers and grandmothers to participate in the WIC certification process and education opportunities. Consider starting a Peer Dad program.
Strengthen peer counseling programs.	Offer more peer counselor services outside of the WIC clinic and outside of normal clinic hours (working in hospitals, answering breastfeeding help lines, delivering breast pumps). Ensure local agency peer counselors reflect the cultural diversity of your clients.
Collaborate with community-based organizations to promote and support breastfeeding.	Participate in or help form a local breastfeeding coalition. Collaborate with other entities to help develop and staff informal breastfeeding support groups, such as Baby Cafés. Build relationships with local hospitals to strive for seamless support of breastfeeding clients.
Ensure the marketing of infant formula is conducted in a way that minimizes its negative impact on exclusive breastfeeding.	Store infant formula out of sight from participants. Don't display magazines or other items with formula advertising.
Ensure that employers establish and maintain comprehensive, high quality lactation support programs for their employees.	Maintain designation or become designated as a Texas Mother-Friendly Worksite.

WHO/UNICEF Ten Steps to Successful Breastfeeding

Evidence shows that several specific maternity service hospital practices can greatly improve breastfeeding initiation, duration, and exclusivity rates among women. The Ten Steps to Successful Breastfeeding developed by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) is an evidence-based bundle of practices proven to support breastfeeding. The Ten Steps to Successful Breastfeeding are supported by the Texas Medical Association, Texas Hospital Association, and American Academy of Pediatrics.

The Ten 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 an hour of birth. Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour. Encourage mothers to recognize when their babies are ready to breastfeed and offer help if needed.
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. Teach mothers cue-based feeding regardless of feeding method.
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.

Texas hospitals that address at least 85% of the Ten Steps to Successful Breastfeeding can be awarded with the Texas Ten Step designation. WIC encourages pregnant moms to look for Texas Ten Step hospitals or birthing facilities.

International Code of Marketing Breastmilk Substitutes

One of the first actions taken globally to promote, protect and support breastfeeding was passed in May 1981, when the World Health Organization adopted the International Code of Marketing of Breast-Milk Substitutes. This code, often referred to as "the WHO code" advocates that babies should be breastfed, and while breastmilk substitutes should be available for moms who cannot or choose not to breastfeed, they should not be marketed or freely distributed to new mothers.

WIC meets the requirements of the WHO code by not allowing infant formula or formula company materials and incentive items, bottles, nipples, pacifiers, logos to be in public sight in WIC clinics.

Baby-Friendly Designation

Birthing facilities worldwide that fully practice the WHO/UNICEF Ten Steps to Successful Breastfeeding and meet the requirements of the WHO code can apply for Baby-Friendly designation. This competitive designation is considered the gold-standard in lactation care. As of 2012, seven esteemed Texas hospitals had achieved Baby-Friendly status. For a current listing, visit http://www.babyfriendlyusa.org/eng/03.html

Texas Initiatives to Improve Breastfeeding Rates

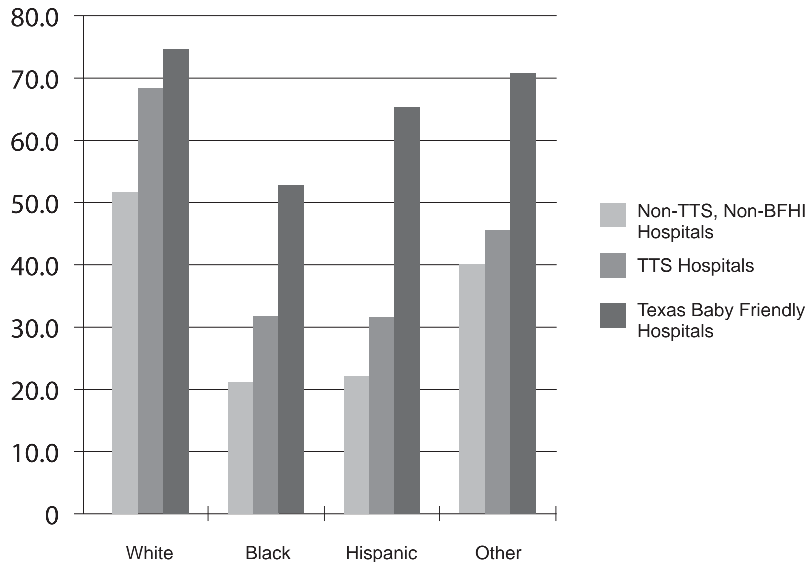
Texas Ten Step Program

The Texas Ten Step (TTS) program, developed by the Texas Hospital Association and the Texas Department of State Health Services (DSHS), requires breastfeeding training for all facility staff and outlines specific steps to ensure breastfeeding support, resulting in better outcomes for moms and babies. The TTS program, administered by DSHS, is considered a step toward Baby-Friendly designation as it is awarded for addressing 85 percent of the Ten Steps to Successful Breastfeeding.

State data shows that the gradual improvements in breastfeeding support that TTS and Baby Friendly facilities have made result in improved breastfeeding outcomes and also narrows racial/ethnic disparities.

Percent Exclusive Breastfeeding on Day 2 of Life by Race/Ethnicity and Hospital Designation-Texas, 2009

Figure 1-1 Texas Vital Statistics, Provisional Live Births, 2009. Newborn Screening, 2009.



Texas Ten Step certification is entirely voluntary, and self-reporting. There are no costs, external audits or site visits. For listing of Texas Ten Step Facilities or information about the program, visit www.texastenstep.org

Activity 1.1 — Texas Ten Steps Facilities
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Texas Mother-Friendly Worksite Program

The Texas Mother-Friendly Worksite Program recognizes businesses that support their breastfeeding employee's efforts to continue breastfeeding after returning to work. A business may be designated as a Texas Mother-Friendly Worksite if they have a written lactation support policy in place that, at minimum:

Texas Ten Step facilities must also be designated as Texas Mother Friendly Worksites.

- Offers flexible work schedules to provide time for expression of milk.
- Provides a non-bathroom, private location that is accessible to disabled employees.

- Provides access to a nearby clean and safe water source and a sink for washing hands and rinsing out any breast-pump equipment.
- Provides access to germ-free storage alternatives for the mother to store her breastmilk.

One of the Healthy People 2020 breastfeeding objectives is to increase the percentage of employers who have worksite lactation programs, such as the Texas Mother-Friendly Worksite Program. All WIC agencies are encouraged to become designated as a Mother-Friendly Worksite to help Texas meet Healthy People 2020 objectives.

Activity 1.2 — Local Mother-Friendly Worksites
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

How WIC Supports Breastfeeding

Larger WIC food packages provide motivation for women to choose to breastfeed, to breastfeed exclusively (breastmilk only) for 6 months, and to continue breastfeeding throughout their child's first year. Breast pumps are also available for free to WIC moms who need them.

"Breastfeeding is a natural safety net against the worst effects of poverty… It is almost as if breastfeeding takes the infant out of poverty for those few vital months in order to give the child a fairer start in life and compensate for the injustices of the world into which it was born."

---The late James P. Grant, past Executive Director of UNICEF

Breastfeeding peer counselors are an important part of the WIC breastfeeding promotion and support team. Peer counselors are WIC moms who have successfully breastfed and who have completed peer counselor training. Peer counselors act as role models for other breastfeeding moms and give mother-to-mother support during and also outside of the usual clinic hours and environment.

Breastmilkcounts.com is the Texas WIC website for WIC participants. It acts as a one-stop shop for breastfeeding families and includes information on getting prepared, the first days, once mom gets home, and returning to work. The website is also available in Spanish.

Activity 1.3 — BreastMilkCounts.com
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Part 1 Test: This is the end of Part 1. Go to your Breastfeeding Promotion and Support Workbook to complete Part 1 test questions.

Why WIC Promotes and Supports Breastfeeding

Milk Production and Components Part 2

Understanding how breastmilk is made and maintained is important. Mothers rely on their health-care providers and support staff for accurate information. Unfortunately, mothers often receive inconsistent information which leads to supplementation and early weaning.

Objectives

After reading Part 2, you will be able to:

- Identify the parts of the lactating breast.
- Name the two hormones involved in lactation and what their job is.
- List at least three components of breastmilk that are missing from formula.

The Lactating Breast

External

The human breast (see Figure 2.1) is made up of many parts. Each part has a specific job or role. Milk is released through milk duct openings in the **nipple**. The average woman has 4-18 nipple openings or pores that are connected to milk ducts that drain the various lobes of the breast (Ramsay, Kent et al., 2005). The dark, circular area that surrounds the nipple is called the **areola**. The areola typically darkens during pregnancy to act as a feeding target for the baby.

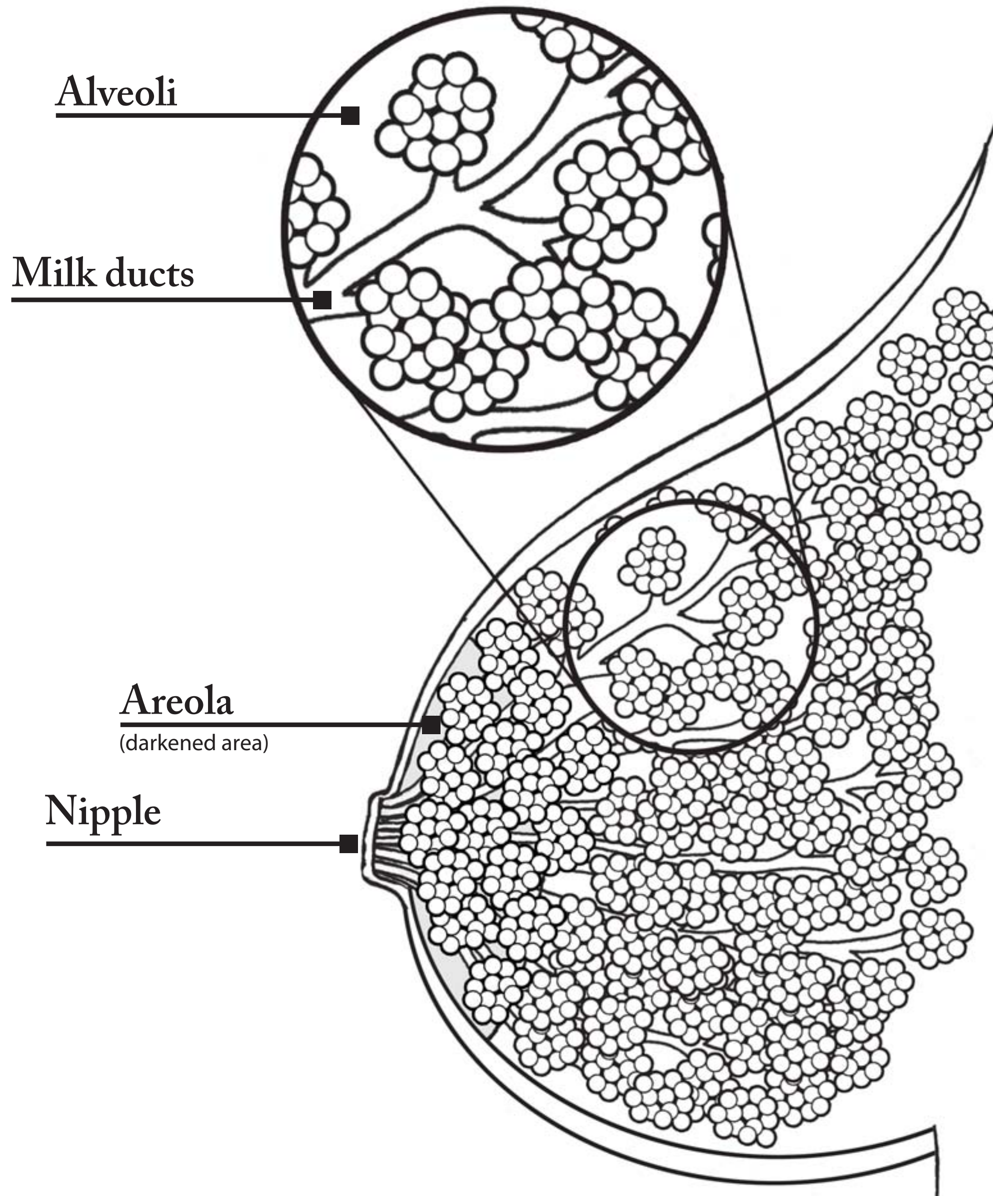
Small bumps, called **Montgomery Glands**, appear on the areola during pregnancy. These glands release a natural oily fluid that cleans and moistens the nipple and areola. The fluid smells like **amniotic fluid** (the fluid that surrounds the baby in-utero) so the smell of the breasts will be familiar and attractive to the baby. Newborns have a strong sense of smell.

The breast also contains muscle, fat, ligaments and connective tissue. These structures all help to support the breast and give it shape.

Internal

It is important to know how the parts of the breast help make and release milk for mothers that breastfeed. The **alveoli** are the grape like clusters where groups of milk cells are found. **Ducts** are like the roadways that milk travels down making its way to the nipple to be released. Each duct branches into a **lobe** of the breast and has groups of alveoli called **lobules**.

Figure 2.1 The Lactating Breast



Breastfeeding Hormones

The muscle tissue and nerves that surround the breast are stimulated when the baby sucks. Suckling stimulates the woman's brain to produce two hormones, **prolactin** and **oxytocin**. Prolactin causes milk to be produced and oxytocin causes the muscle to contract and move the milk down the ducts and out of the nipple. This is called the "**let-down**" or **milk-ejection reflex**.

Uterine cramping in the first few weeks after birth is normal. High oxytocin levels cause the mother's uterus to contract and shrink to a smaller size. This sensation may be stronger in women with multiple children.

Infant suckling causes spurts of oxytocin to be released averaging three to four milk-ejection reflexes to be produced during each feeding. Moms might describe a let-down as tingling, slightly painful, tightening or a "pins and needles" sensation that lasts for a few seconds. Other women do not feel anything at all. Some women only feel the first let down.

Suckling also stimulates a sharp rise in the mother's prolactin levels, greatly increasing the amount of milk produced. Prolactin levels are higher in the overnight and early morning period. Because of this, a mother's breasts tend to be fuller in the mornings and softer in the evening. A mother who is trying to establish or build her milk supply should be encouraged to not skip night time feedings so she can take advantage of the high prolactin levels.

How the Body Makes Milk

Hormone Receptor Sites

In order for the breastfeeding hormones, prolactin and oxytocin, to do their job, they need to connect to **receptor sites** in the breast. The relationship between the hormone and receptor site is like a lock and key. The lock (receptor) allows entry when the right key (hormone) is present. Receptor sites develop when a mom breastfeeds or removes milk during the first few weeks after she gives birth (West & Marasco 2009).

A mom makes new receptors every time she has a baby. Even if she did not have a good breastfeeding experience in the past, she can build NEW receptors with a new baby, and this means she can make more milk.

Establishing a Good Milk Supply

The more mom breastfeeds or removes milk through hand expression or pumping in the first few weeks, the more receptor sites she will make. When a mom has many receptor sites, her breastfeeding hormones help her make as much milk as her baby needs. This is how she can establish a good milk supply.

When a mom feeds a baby formula in the first few weeks instead of exclusively breastfeeding, her body may not make as many receptors, which could result in a lower milk supply. Therefore, all mothers should be encouraged to exclusively breastfeed (breastmilk only) in the first few weeks and months. When a mother gets off to a good start and feeds her baby only breastmilk, she will be able to make more milk and will have an easier time maintaining her milk supply.

It is common for one breast to produce more milk than the other. One U.S. study showed that 70% of the study participants produced more milk from the right breast. (Hill, Aldag, Zinaman, & Chatterton, 2007)

Maintaining the supply

After the first few weeks, milk production is based more on supply and demand — meaning the mother's milk supply is based on the baby's demand for milk. West & Marasco (2009) refer to the "golden rule of milk production" in that "the emptier a breast is kept, the harder the body works to restock and the higher the rate of production."

The system partly responsible for this is called **Feedback Inhibitor of Lactation (FIL).** FIL is a human milk protein that slows down milk production when the breast is full. Milk production speeds up when the breast is emptier.

Activity 2.1 — Stick To Breastmilk

Stop here and go to http://breastmilkcounts.com/educational-activities.php to complete the activity.

Every Mom is Different

Custom Made Milk

A mother's body custom makes breastmilk for her baby depending on the babies needs. Because every baby has different needs, the milk produced for a preterm infant is very different than the milk produced for a full term infant. A mother's milk will change as her baby grows to meet her older baby's needs. It will also provide protective factors to the germs or illnesses that she and her baby are exposed to.

Milk supply and milk storage capacity has nothing to do with breast size. The amount of fat tissue in the breast is what determines size.

Milk Storage Capacity

Milk storage capacity is the amount of milk the breast can store between feedings. This can vary widely from mom to mom and between breasts for the same mom. A mother with a large milk

storage capacity may be able to go longer between feedings without affecting her milk supply and her baby's growth. A mother with a small storage capacity will need to nurse her baby more frequently to satisfy the baby and to maintain her milk supply. Having a smaller storage capacity does not mean that a woman does not make enough milk. It just means her baby will breastfeed more often.

Fat Variations in Breastmilk

While fat contributes to approximately 50% of calories in breastmilk over the course of a day, fat content can vary from morning to evening, from the beginning of a feeding until the end, and from mother to mother. A mother's breastmilk fat content also increases as her baby grows older. (Breastfeeding Handbook for Physicians, 2006, p. 24).

Mothers should not be concerned if their breasts feel softer in the evening. Their milk is like "dessert" for the infant, full of calories and fat!

Foremilk, or milk at the beginning of each feeding, is lower in fat. **Hindmilk**, or the milk toward the end of the feeding is two to three times higher in fat than foremilk.

Breastmilk fat rises to the top of the container when stored.

The amount of fat in the milk is determined by breast fullness. Since fat is a rich source of calories, the amount of calories in the milk is also determined by breast fullness. The very full breast will have less fat and calories in the milk. The "emptier" or softer breast contains milk that is higher in fat and calories.

Since prolactin levels are higher in the overnight and early morning period, mothers tend to have fuller breasts, and therefore milk that is lower in fat and calories in the morning. This may result in longer feedings in the mornings. Babies may have shorter feedings when the breast is softer and contains higher fat, higher calorie milk.

Some women produce higher fat/higher calorie milk than other women. A mother who produces higher fat/higher calorie milk will probably have a baby who goes longer between feedings or who has shorter feedings.

Activity 2.2 — Breast Anatomy
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity. Label the parts of the breast.

Breastmilk vs Formula

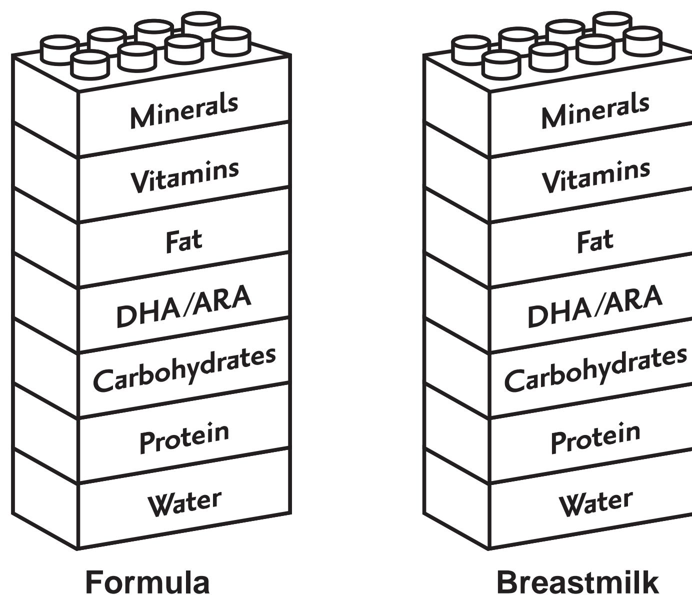
Formula manufacturers make many spectacular health claims about their product.

- Closer than ever to breastmilk
- Promotes the support of infant learning and memory
- Helps baby feel better when they have stomach discomfort

One major goal for the formula company is to sell their product. Mothers are "buyers" or consumers and they are heavily marketed or influenced through television, radio and print advertisements and free "gifts." The truth is that nothing compares to breastmilk.

It is important to know the differences between formula and breastmilk. Although some things found in breastmilk are also found in formula (see figure 2.2), they come from different sources and do not act the same way or provide the same benefits. Human milk is for human babies. Everything in breastmilk from water to antibodies comes from the mother's body. Everything in formula comes from cows, soy plants or some other non-human source. The substitute ingredients found in formula do not have the same benefits as the real thing.

Figure 2.2 Ingredients Found in Breastmilk and Formula



Carbohydrates

Carbohydrates are the natural sugars found in breastmilk that promote brain development and intestinal health. **Lactose** and **oligosaccharides**, also known as milk sugars, are the main carbohydrates found in breastmilk. Lactose helps a baby's brain develop and oligosaccharides keep the baby's brain and intestines healthy. Milk sugars in breastmilk provide many levels of protection from bacteria that is specific to the human infant. Formula contains non-human milk sugars that cannot provide the protection that breast milk offers (Walker, 2001).

Proteins

The protein found in breastmilk is more easily digested than the proteins in formula. This cuts down on stomach problems like vomiting and diarrhea. Protein in breastmilk and formula breaks down into curds and whey. The whey is liquid and the curd is white and rubbery, like cottage cheese. The curd in cow's milk formula is larger and harder for human babies to digest. Breastmilk forms more whey than curd and the curd in breastmilk is softer and more easily digested. That may be why breastfed babies eat more often than babies who are formula-fed. On average a breastfed infant will eat every 2 to 3 hours, while a formula-fed infant eats every 3 to 4 hours. When you combine breastmilk with formula feeding, an infant will eat less often at the breast because of the slower digestion of the formula. This will cause a mother's milk supply to decrease.

Fats

Fats found in breastmilk contribute to approximately 50% of the calories in milk and are beneficial to a growing baby's brain, eye and body development (Walker, 2011). Fat is a valuable source of energy for a newborn. The fats in breastmilk include **cholesterol** and an enzyme called **lipase**. Lipase breaks the fats down into smaller parts and makes them more easily digested and absorbed. Lipase is required for premature babies because their digestive systems are not fully developed and they need lots of energy to grow. Cholesterol is only found in breastmilk fat, not formula, and is very important for a baby's growing brain and body. Lack of cholesterol in formula may increase the risk of developing heart disease as an adult. (Schwarz, 2009)

Docosahexaenoic acid (DHA) and **Arachidonic Acid (ARA)** are important human milk fatty acids that help a baby's brain and eyes develop. Formula contains artificial sources of DHA and ARA that are manufactured from algae and fungus. The fatty acids in breastmilk are in a delicate balance with other fatty acids. This balance is not repeated in formula. There is also little evidence to prove that adding these artificial sources of fatty acids to formula provides significant improvement in vision or intelligence in healthy term infants (Walker, 2011). What we do know is that these formulas have increased in price which can place a significant burden on a new family. Breastmilk is free and a perfectly balanced source of nutrition made for each specific infant.

Vitamins and Minerals

With the exception of vitamin D, the vitamins and minerals in breastmilk occur naturally in just the right amounts that the baby needs and are easy for the baby's body to use. In formula, the vitamins and minerals are from non-human sources. Some are added in very large amounts because they aren't absorbed very well by the baby.

The primary natural source of vitamin D is sunlight. Vitamin D is made in the skin when it is exposed to sunlight. Vitamin D levels in breastmilk began decreasing as medical recommendations for widespread use of sunscreen to combat skin cancer increased. Vitamin D can also be obtained in our diet; however there are limited sources in the average diet, especially for people who do not consume milk.

The American Academy of Pediatrics began recommending a supplement of vitamin D for all babies in 2003. The current recommendation is for 400 IU/day of vitamin D beginning in the first few days of life. (Pediatrics, November 2008).

Vegetarian mothers should receive a nutrition consult to discuss how to acquire vitamin B12 from their diet and usually need to take a vitamin B12 supplement. Also, mothers who have undergone gastric bypass surgery will need to supplement with B12.

Activity 2.3 — How Do They Stack Up?
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity. Can you name the seven items found in both formula and breastmilk?

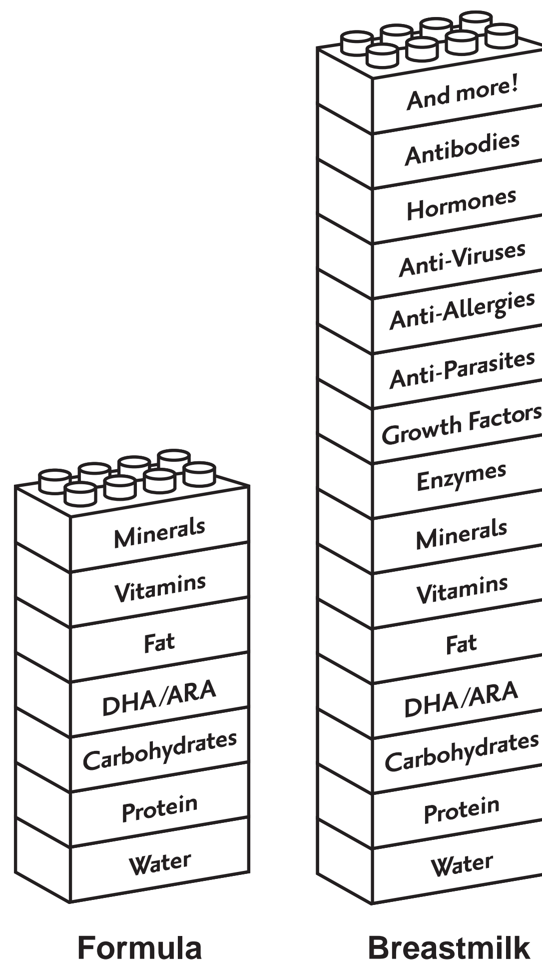
The Critical Missing Pieces

Now that you know what components are found in both breastmilk and formula, it is important to know what is NOT found in formula. There are at least 100 ingredients in breastmilk that are not found in formula and more are being discovered all of the time. Most of the ingredients belong to one of these categories shown in Figure 2.3.

Enzymes

Enzymes in breastmilk help break down fat, protein and carbohydrates so a baby's body can easily use them. Many of the enzymes in breastmilk have special jobs. **Lysozyme** for example, is an enzyme that kills bacteria. Breastmilk will have more lysozymes if a mother breastfeeds longer. Formula contains no enzymes.

Figure 2.3 Ingredients Not Found in Formula



Growth Factors

Growth factors stimulate the growth of tissues. There are many different types of growth factors in breastmilk. Each one helps grow or mature the different parts of the baby's body, including the skin, nerves, blood vessels and intestines. Formula contains none of these growth factors.

Anti-Parasites

Anti-parasites are substances found in breastmilk that keep parasites from causing harm. Parasites often infect the digestive tract and try to attach themselves to the inside of a baby's body. Some substances in breastmilk act like "doormen"— they attach to the uninvited parasite and escort it out of the baby's body. Other components may prevent the parasite from finding a home by attaching to a site in the infant's intestinal wall and keeping it from entering, or by consuming and destroying the parasite. Formula does not provide babies protection against parasites.

Anti-Allergies

Breastmilk reduces a child's chance of developing food allergies throughout the rest of his or her life. A baby's gut or gastrointestinal tract is not fully developed at birth, which means it is delicate. When a baby has an all-breastmilk diet for the first 6 months, the baby's gut is able to fully form and provide protection from allergic substances. When babies have formula before they are 6 months old, they have more bad bacteria in their intestines, which mean they have a higher risk of allergies and various childhood illnesses. Many babies are allergic to cow's milk and soybean proteins — the kinds of proteins found in most formula. Formula does not provide babies protection against allergies.

Anti-Viruses

Breastmilk protects babies from viruses. Like parasites, viruses can enter and hurt a baby's body. Anti-viral ingredients found in breastmilk block incoming viruses or attach to a virus making it harmless. **Natural killer cells** are one of the many anti-viral ingredients in breastmilk. They kill harmful tumor cells or cells that are infected by viruses. Formula does not offer babies protection from viruses.

Hormones

Breastmilk is rich in more than 15 hormones. Oxytocin is one of these hormones. Oxytocin causes the let-down reflex and creates strong bonds between mothers and babies and has a calming effect on the baby. Other hormones include prolactin, which causes milk production; prostaglandins, which help a baby's digestive development; and leptin, which may help reduce the likelihood of obesity. Formula contains none of these beneficial hormones.

Antibodies

Antibodies provide protection against germs and infections by boosting the immune system. When a mother is exposed to a germ, she makes antibodies to protect against that germ and transfers those antibodies to her infant through her milk. Colostrum, the first milk, is highly concentrated with antibodies giving the newborn protection from the very first drop.

Breastmilk is full of live cells and changes according to a baby's needs. Formula is a fluid that never changes.

There is no substitute for breastmilk. Understanding how the breast works, how milk is made and how formula is very different in its ingredients, gives you the knowledge to teach WIC clients why "breast is best"!

Activity 2.4 — The Critical Missing Pieces
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Part 2 Test: This is the end of Part 2. Go to your Breastfeeding Promotion and Support Workbook to complete Part 2 test questions.

Creating a Breastfeeding-Friendly Environment

Part 3

Creating a breastfeeding-friendly environment establishes breastfeeding as the normal way to feed infants and encourages women to consider breastfeeding. A breastfeeding-friendly environment consists of positive breastfeeding images and staff who are sensitive to the needs of breastfeeding families and sends the message that women's breastfeeding efforts will be supported by WIC staff.

Objectives

After reading Part 3, you'll be able to:

- Identify your own feelings about breastfeeding.
- Define breastfeeding promotion and support roles of different staff.
- Identify methods in which your clinic visually represents breastfeeding as the normal way to feed infants.

Feelings About Breastfeeding

How do you feel about your role in promoting and supporting breastfeeding? To create a breastfeeding-friendly environment, you must start by exploring your own personal feelings about breastfeeding.

Activity 3.1 – First Exposure to Breastfeeding
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

There is no right or wrong way to feel about the first time you saw someone breastfeeding. Whether you felt warmth or shock, embarrassment or surprise, your feelings are valid. In looking at breastfeeding attitudes, the question to ask is "Why do you think you felt that way?" Sometimes there is a strong connection between feelings or reactions and decisions you may have made in your own life. Personal experience or lack of experience with breastfeeding may continue to shape your feelings.

For example:

- Maybe you have had no direct experience with breastfeeding, no children of your own, or breastfeeding in your family has always been a private issue. It can be uncomfortable to discuss things that you have not personally experienced.
- Perhaps you are a mother with breastfed children and everything went perfectly. Your baby latched on easily and seemed to have read all of those textbooks right along with you. You loved breastfeeding. How easy is it for you to imagine and relate to mothers who choose to bottle feed or moms who have a really hard time with breastfeeding?
- Maybe you tried to breastfeed but things didn't go so well. Nobody told you how to latch the baby and you left the hospital with sore nipples and no idea what to do to make it better. When your baby became fussy and didn't gain weight, you offered formula and it worked well for you. How do you feel when you hear WIC breastfeeding staff saying "Breastfeeding is natural" or when you hear a peer counselor telling a mother how wonderful breastfeeding is?

- Perhaps you never tried to breastfeed. Maybe no one shared information with you or perhaps your health-care provider actively discouraged breastfeeding. Maybe you returned to work soon after the baby was born and no one in your workplace would have understood or supported breastfeeding.

Reflect on Your Feelings

Reflecting on experiences will help you recognize how they have informed your current beliefs and feelings about breastfeeding. In looking back on those experiences and then being able to relate with clients, an important thing to remember is that everyone does what they can to be good parents. No one has the intention of being a bad parent. As parents, there are decisions you may look back on and say, "that was the best decision for me at the time."

There are some decisions in which you might feel "If I'd known then what I know now, I might have done things differently." Most parents will make decisions that work best for them based on the circumstances and amount of information and support they have. Our role at WIC is to help new families get the support and education they need in order to make an informed decision about breastfeeding. Once they have made an informed decision, WIC is also there to help them reach their goals.

The issue of "not wanting to make a mother feel guilty" is sometimes mentioned as a reason not to discuss breastfeeding at all. However, talking to parents about the reasons to breastfeed and addressing barriers allows families to be empowered to make the choice that is best for their family. A woman's body is preparing to breastfeed regardless of her feeding choice. This is another reason that it is important to discuss breastfeeding with every family.

Other feelings might also affect the way breastfeeding is talked about with WIC mothers. Some people may be embarrassed to discuss breastfeeding at all. This can be a common feeling in our society. The good news is that the more you learn about breastfeeding and how to support mothers, the easier it can become to talk about it. When WIC staff are comfortable with and supportive of breastfeeding, moms will be more likely to feel it is something they can embrace too.

But What If I'm Not an Expert?

It does not take an expert to give breastfeeding support. If you're not the appropriate person to give education find a designated breastfeeding expert to refer the mom to while providing her with support and compassion. Focus on giving support by asking open ended questions and giving affirmation. You will learn more about this in Part 4 of this module.

All WIC Staff are Important

Though our experiences and feelings about breastfeeding may vary, our message must be the same. WIC mothers look at staff as experts in infant nutrition and expect to hear consistent information from everyone in the clinic.

WIC staff support mothers in different ways depending upon your job duties. Whatever your role is in the clinic, you make a difference in the lives of the clients that you see. Each contact is an opportunity to build confidence and strong families through education and support.

Staff Roles in Promoting and Supporting Breastfeeding

Clerks

- Are the bookends of each WIC visit. They are often the first and the last staff the family sees.
- Make the first impression. Clerks can set the tone by giving participants immediate attention, smiling, and using breastfeeding-friendly language.
- Are often the first to hear of mothers experiencing breastfeeding problems.
- Refer breastfeeding mothers for support and follow-up.
- Are the first responders to questions about food packages and types of breastfeeding support available through WIC.

WIC is a valuable resource and may be the only source of breastfeeding information for some parents.

Certifying Authorities

- Conduct complete WIC breastfeeding assessments using Value Enhanced Nutrition Assessment (VENA) principles and techniques.
- Provide appropriate education/assistance/referrals.

- Prescribe appropriate food packages to mothers and infants to encourage breastfeeding with minimal supplementation.

Breastfeeding Peer Counselors

- Are role models for breastfeeding behaviors.
- Promote breastfeeding and provide basic breastfeeding support.
- Give mother-to-mother support outside of the usual clinic hours and environment.

Breastfeeding Coordinators

- Coordinate Local Agency breastfeeding activities.
- Oversee planning, implementation, evaluation, training, and community collaborations.

WIC Designated Breastfeeding Expert

- Every local agency has one or more WIC Designated Breastfeeding Expert for staff to call upon when facing breastfeeding situations they don't feel qualified to handle.
- The process for how staff should make referrals to the WIC Designated Breastfeeding Expert is determined by their local agency. It is up to each local agency to determine a process for making referrals.
- The goal is to make sure the needs of breastfeeding mothers are addressed in a timely and appropriate manner.
- Your local agency Designated Breastfeeding Expert might include, International Board Certified Lactation Consultants (IBCLCs), your WIC Breastfeeding Coordinator, Certifying Authorities, or other **DSHS Trained Breastfeeding Educators (TBEs)**.

First Impressions

From the moment a new client walks into the WIC clinic until she goes to the grocery store to pick up her WIC foods she is forming an opinion of what WIC is and how it will fit into her new journey. Will she see WIC as a valuable resource where she feels safe and supported or just a place she has to go in order to get food benefits?

What your clinic looks like can have a huge impact on a new participant's first impression. What do participants see when they first walk into your clinic? Do they see images that reflect that

breastfeeding is the normal way to feed infants or do they see signs that tell them the consequences of arriving late for an appointment? Assessing and making small changes to your clinic environment can go a long way in improving WIC's reputation as a breastfeeding promotion and support resource and excellent customer service program.

Building a supportive relationship with clients by practicing good customer service and treating them like valued clients is important for making a good first impression. WIC staff can do that by putting the following practices in place.

- **Smile and greet participants immediately**. With the high volume of clients we see daily, this can be tough. But smiles are contagious and so are bad attitudes. Women are much more likely to open up and speak with a smiling or inviting face than someone who looks completely stressed out or upset. Women are more likely to feel respected when greeted immediately. If you are on the phone when a participant comes in, greet her with a smile or a wave to acknowledge her and address her as soon as you are available.
- **Congratulate moms on their pregnancy or their babies**. This is a simple gesture that sends a message that the client is appreciated and is in a caring environment.
- **Say something positive**. Take every opportunity to say something positive about the client or about breastfeeding. This could be as simple as thanking her for being on time or early to her appointment or telling her what a great mom she is. Even if someone seems to be having a hard time with other children or simply having a bad day a simple thank you, such as "We're glad to see you. Thanks for coming in today," will help them feel appreciated.

First impressions are important and will set the stage for a good experience with WIC. Moms are more likely to open up and share concerns when they feel at ease and valued.

Activity 3.2 — Is Your Clinic Breastfeeding-Friendly?
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Part 3 Test: This is the end of Part 3. Go to your Breastfeeding Promotion and Support Workbook to complete Part 3 test questions.

(Part 3 was adapted from Using Loving Support to Grow and Glow in WIC: Breastfeeding Training for Local WIC Staff, United States Department of Agriculture, Food and Nutrition Service, 2010)

Communicating with WIC Families About Breastfeeding

Part 4

From their neighbor to the television formula advertisements, mothers hear competing messages about breastfeeding which can crowd out the fact that breastfeeding is normal and natural. Barriers such as embarrassment, fear of pain, or negative comments about breastfeeding can make mothers less likely to breastfeed. Communication skills in order to combat these competing messages and barriers are vital no matter what your role is in WIC. WIC staff play an important role in ensuring mothers receive accurate information and encouragement so they can make informed choices about feeding their baby.

Objectives

After reading Part 4, you'll be able to:

- Recognize social factors or personal beliefs that may influence a mother's breastfeeding decision.
- Name a strategy to acknowledge a woman's feelings about breastfeeding.
- Provide evidence based information to assist mothers in overcoming breastfeeding barriers.

Part 4

Building Client Relationships

Information alone is not enough to change behavior — mothers need **affirmation** for their concerns and solutions for their barriers. In one study, 84 percent of mothers who formula-fed knew that breastmilk was better for their babies but decided not to breastfeed due to concerns of pain, smoking, and work (Noble, Hand, Haynes 2003). The timing and framing of our messages — the right words at the right time — can open up possibilities that an information pamphlet alone cannot do.

In this part of the module, you will be learning techniques that will help you establish positive relationships with WIC participants as well as learning barriers that breastfeeding moms are commonly faced with. You may not be the appropriate person to counsel a mom on some of the examples listed throughout this part. However, it is important that you know these barriers exist and know methods for putting the moms at ease until you can get her to the appropriate person for help.

3-Step Counseling Method

Barriers to breastfeeding can come up at any time during the WIC certification process. No matter what your role is in the WIC clinic, these three steps can be used to help calm mothers' fears about breastfeeding which puts them in a better state of mind to learn new things — like why and how to breastfeed. It is important that all WIC staff are familiar with this counseling method.

Step 1 — Ask open ended questions

Client centered care revolves around **open-ended questions** or questions that cannot be answered with "yes" or "no." A **closed-ended question** such as "Are you going to breastfeed?" can be answered with a "Yes," "No," or "I'm not sure." This will only give you insight into their intention and more probing must be done in order to reach any concerns that they may have. Closed-ended questions can quickly bring a conversation to an end. "No" responses to closed-ended questions often lead to a "Why not?" response from the counselor which can put an individual in a defensive mode.

Closed-ended question		Open-ended question
"Are you going to breastfeed?"	vs	"What have you heard about breastfeeding?"

Here are a few examples of open ended questions that may help get a conversation going.

- "What questions do you have about breastfeeding?"
- "What have you heard about breastfeeding?"

If you're having a hard time getting the mom to talk or if you're still not sure you've addressed her concern, try:

- "Tell me more" or "Tell me about… (insert whatever you would like to discuss)"
- "Tell me about your previous breastfeeding experience."

It may take several open ended questions followed by more direct questions to bring a mom's concerns out.

Step 2 — Give Affirmation

An **affirmation** is a statement of the existence of truth. In affirming a mothers concerns, beliefs, or statements you are looking for the truth in her statements or pointing out truths in the situation. Affirmation is another important aspect of building trusting relationships with clients. It ensures the client that you are listening to her and that you have heard and understood her concerns or feelings. By affirming that a mother's concerns or feelings are genuine or true, you are putting the mom at ease which opens her up to learning new things. It also builds the mom's self-confidence and her trust in you as a valuable and supportive WIC staff member.

Other words for affirmation are validation or confirmation.

There are five major ways to affirm a mother's feelings.

1. Agree with her (if you can). This lets her know she is right about something.
   - "You're right. Breastfeeding can be time consuming in the beginning."
2. Assure her she is not alone.
   - "Other mothers have felt the same way" or "I remember feeling that way."

3. Read between the lines to discover what she values or is worried about.
    - "I can see that keeping your baby happy is very important to you."
4. Shine the spotlight on what she is doing well.
    - "It's great that you are breastfeeding! A lot of mothers would have given up."
5. Show her how she is a good mother.
    - "It's obvious that you are working hard to be a good mother."

If the client doesn't really have a response to your open ended questions or her concern is above your level of training, it is still important to affirm.

- "There is a lot to think about when you're going to be a new mother."
- "That's a really great question."

Step 3 — Educate

Education is the final step. Barriers must be uncovered and affirmed before a client will be open to receiving correct information, encouragement, and resources regarding her particular concern. This may be as simple as providing the mom with WIC program information or, if you are not the appropriate person to counsel or educate the mother, letting her know which WIC staff will be providing more information regarding her concerns.

"We do provide breast pumps and breastfeeding support to make it easier for moms to continue breastfeeding when they go back to work."

"You'll have an opportunity to speak with our breastfeeding peer counselor today so think about any concerns you may have and we'll make sure that all your questions get answered."

"I'll let the breastfeeding peer counselor (or designated breastfeeding expert) know that you need more information about that and you can talk to her today."

3-step counseling method example

WIC Staff: “What questions do you have about breastfeeding? (open ended question)

Client: “I don’t know… I had a friend that said it really hurt.”

WIC staff (clerk): “You’re not alone. I hear that concern a lot.” (affirming)

WIC staff (clerk): “Most of the time if you are having pain, it’s because the baby isn’t latched on well. When you talk to our peer counselor (or breastfeeding expert) today she can tell you what it should look and feel like while you’re baby is eating. Breastfeeding should not be painful. (education)

Activity 4.1 — Practicing the 3-step counseling method
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Common Breastfeeding Barriers

The most common barriers to breastfeeding are:

- Embarrassment
- Lack of social support from family and friends
- Time and social constraints like returning to work or school
- Fear of pain
- Unsupportive hospital practices
- Concerns about making enough milk

Embarrassment

Embarrassment to breastfeed in public or in front of family and friends is a common barrier for mothers. For some women this feeling is so strong that they may pump milk before they go out with their child so they will not have to directly breastfeed when their baby gets hungry. These feelings could come from cultural norms in the United States that associate bottles with babies and breasts as sexual objects rather than the means for feeding infants. Some

women may have never seen another mother nurse her child. Others are concerned about breastfeeding in public for fear their breasts will be exposed or that someone might say something negative to them.

Not all mothers will discuss their embarrassment. It may take a few direct questions to get to this barrier. This may be the mom who says she plans to do both breastfeeding and formula-feeding or wants to pump. Some new moms may not plan to breastfeed at all because of the perception that it would "not be natural for a baby to be suckling from my breast." For others, even saying the word "breastfeeding" may be difficult.

This deep rooted point of view takes lots of education and support to overcome. Showing mothers how to breastfeed discreetly, or without others noticing she is breastfeeding, is one way to help address this barrier. Simple gestures in the WIC clinic that tell moms "breastfeeding is normal" will help make mothers more confident and comfortable in their decision to breastfeed wherever they are.

How You Can Help

- When speaking to clients, talk to them as if everyone will want to breastfeed and let them know that they have support if they need it.
- If you are a breastfeeding peer counselor who is bringing her infant to work, talk with pregnant mothers in the waiting room while breastfeeding. This is a great time to model breastfeeding and expose new mothers to breastfeeding in a positive, supportive environment. Demonstrate how moms can breastfeed without exposing themselves using blankets and layered clothing.
- Create a breastfeeding-friendly clinic environment so that moms feel comfortable nursing anywhere.
- Pass out the breastfeeding law card to anyone that you notice breastfeeding in the waiting room and thank them for breastfeeding. Take some with you and pass them out around town anytime you see a woman breastfeeding her child in public.
- Provide a place for anyone asking for a quiet more private place to nurse. Be careful not to give the impression that moms must nurse in private but that there is a comfortable place for her to be alone with her baby if she prefers.

Breastfeeding:
THE LAW

Chapter 165, Texas Health and Safety Code

A mother is entitled to breastfeed her baby in any location in which the mother is authorized to be.

Lack of Social Support

New mothers value support from their family and friends in their infant feeding decisions. The woman's partner and other female relatives have the strongest influence on their decisions to breastfeed and how long they will breastfeed. Her health care provider is also very influential (Best Start 1997, Lu, M. et al. 2001). Throughout the community, new mothers need support to feel confident about breastfeeding.

Fathers

Many men are not aware of the importance of breastfeeding and fathers may have their own concerns about breastfeeding. Some men do not want their partners to breastfeed in public because they feel other men may have sexual thoughts and get the wrong idea about the mom. Fathers may be concerned about feeling left out, feel helpless to solve a problem if the mother does experience pain with breastfeeding, and may worry that breastfeeding will interfere with their relationship with their partner.

Incorporating dads into the WIC environment may seem difficult, especially if they know what WIC stands for. With a few simple steps we can make our clinics a more inviting place. When a dad does join his partner for a WIC appointment, appropriate staff should find out how he feels about breastfeeding, affirm his feelings and include him in the education. Give him some good ideas on what he can do to be supportive in ways that will be appealing to him i.e. not just changing diapers. Even when a baby and mother have a special bond through breastfeeding, a father can establish a strong bond with his baby in other important ways.

How Support Persons Can Help

- Bathing and dressing the baby
- Playing with the baby
- Burping the baby
- Singing or humming softly to the baby
- Holding the baby skin-to-skin
- Massaging the baby
- Cuddling and rocking the baby after breastfeeding
- Caring for other children
- Taking care of mom
- Calling to make appointments
- Shopping and cleaning

Grandparents

Grandparents may have been exposed to many myths and misinformation when they were having their own children. Even if a grandparent is supportive of breastfeeding they may report frustration in not knowing how to help a daughter who is having difficulties.

Many times the grandmother is the support person accompanying the new mother to her WIC appointment. Grandmothers may be even more influential on a mother's continued breastfeeding when she returns to work and may be relying more heavily on family members to care for the baby. It is important to acknowledge a grandmother's unique role and respect her experiences as a mother by letting her know that her daughter will look to her for advice and support.

How You Can Help

- Involve fathers and grandparents in prenatal and postpartum education when possible and give them education and tools to be good support persons for the new mother.
- Let grandparents know that they are part of the mom's care team.
- Give brochures targeted to fathers and grandparents to all pregnant moms regardless of whether the fathers and grandparents are in the clinic that day.
- Provide strategies on how fathers and grandparents can be involved in ways that are appealing them.
- Display posters of fathers and grandparents supporting breastfeeding.

Activity 4.2 — Is Your Clinic Father-Friendly
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Time and Social Constraints

In our fast paced economy, today's moms are usually overextended and may be expected to return to work quickly after a baby is born, or take care of other family members. Women with multiple children not only have to deal with the demand from the baby but they are also usually juggling the schedules of their other children. Imagining how breastfeeding will fit into their already busy lives may be difficult; especially for a single mom or a mom returning to work soon after the baby is born.

How You Can Help

- Addressing common myths associated with this barrier, such as "breastfeeding will tie you down" can help. See appendix A for a list of common myths about breastfeeding and recommendations for what you can say to help put the mom at ease.

- Let mothers know that breastfeeding is an investment that pays off after a few weeks with not only a healthier baby but also convenience.
    - Infants require frequent feeds regardless of whether or not they are breastfed or formula fed.
    - Breastfeeding becomes easier as babies grow older.
    - Babies eat less frequently as they grow and will be eating other foods in addition to breastmilk in their second six months.
- Remind moms that the time spent breastfeeding is such a short amount of time when you consider the lifelong benefits.

Fear of Pain

If you've ever heard a story about a cracked, bleeding nipple then you can understand how this is a real fear for many moms. A personal bad experience or story from a friend can keep moms from considering breastfeeding and is a major factor in early weaning.

How You Can Help

- Reassure moms that breastfeeding should not be painful and if it is, to ask for help right away. Most painful situations go away quickly after a visit with a breastfeeding counselor.
- Give her a list of breastfeeding counselors and breastfeeding help lines during pregnancy so that she knows who to call if she has questions or needs help. (See part 6)

While some breast tenderness is common in the first few days, true pain is a sign that there is a problem and the mother should seek help.

Unsupportive Hospital Practices

The kind of care a mother receives in the hospital can have a large influence on her breastfeeding success. Many routine practices that families currently receive while in the hospital are unsupportive of breastfeeding such as separation of mother and infant immediately after birth, continuous swaddling of babies, unnecessary supplementation or supplementation without consent, and pacifier use.

How You Can Help

Be familiar with where the Texas Ten Step and Baby Friendly facilities are in your area. (See Activity 1.1) These facilities have either achieved or are working toward full adoption of the Ten

Steps to Successful Breastfeeding described in part 1 of this module. Recommend these facilities to your clients.

Regardless of whether or not a mother will be delivering at a Texas Ten Step or Baby Friendly facility, there are several things mothers can ask for specifically that will help make her breastfeeding experience more successful. These recommendations are covered in several WIC materials and on www.breastmilkcounts.com. They include:

- Holding the baby skin-to-skin immediately after birth for at least an hour or until the baby's first feeding.
- Breastfeeding within the first hour or so.
- Keeping the baby in the same room as mom and continuing skin-to-skin contact.
- Feeding only breastmilk and asking for a breast pump if the baby is not feeding from the breast.
- Avoiding use of pacifiers and bottles in the baby's first month.

Concerns About Milk Production

The number one reason moms quit breastfeeding is because they fear they are not making enough milk. Like most other barriers, lack of confidence is the major contributing factor behind this obstacle. Examples of some statements that may indicate a mother's lack of confidence in her milk supply include:

- "I might try to breastfeed but can I get some formula just in case?"
- "I'm afraid I won't have any milk just like my mother."
- "I'll do both."
- "I'll breastfeed if I can."

Often when a mom says she doesn't have enough milk, it is because she thinks she doesn't have enough milk when she actually does. If a mom says "I'm going to quit breastfeeding because I am not making enough milk," a good response would be "What makes you think you are not making enough milk?"

You'll be surprised to hear that many moms think crying always means their baby is hungry. In fact, many moms misinterpret their baby's behavior cues, such as crying, which causes them to think they don't have enough milk. Part 5 of this module will teach you more about baby behavior cues so you can help moms recognize when

their babies are hungry and when they may just need to be held or given some quiet time.

Most causes of real low milk supply are related to basic breastfeeding mismanagement and can be corrected quickly with the help of a lactation consultant. Remember, the more often a woman breastfeeds, the more milk she will make.

How You Can Help

All WIC staff can make a big difference by affirming new mothers and building confidence and by letting moms know what to expect. Just as in labor, the more a mother knows about what her body is doing the less frightening it becomes. WIC can be there for those mothers with a message of "you can do it, we can help."

- Tell moms that weight gain is the best way to tell if a baby if getting enough to eat. Make a note for other WIC staff to weigh babies whose moms need reassurance.
- Teach moms how to recognize their baby's behavior cues covered in Part 5 of this module.
- Refer moms to the Peer Counselor (or designated breastfeeding expert) who will make sure the baby is breastfeeding well.

Build Confidence at Every Opportunity

Many women quit breastfeeding or start supplementing because they do not have confidence in themselves and their body's ability to make milk. In addition, a lot of new mothers don't have other family members or friends that have breastfed so they don't have anyone in their lives to turn to if they have questions. The decision between breastfeeding and giving a bottle of formula, when it is not necessary, could be influenced by the mom's confidence and understanding of her body and how it makes milk.

Mothers who have had a previous negative experience may need a little extra support and confidence that they can overcome the problem they had before. It's important to remind moms that every baby is different and encourage them to give it another try. Asking how things went with breastfeeding previous children can very quickly bring out barriers and open a conversation about breastfeeding goals for the next baby.

Providing words of encouragement and factual information helps increase a mom's confidence and could keep her breastfeeding longer. The more a mom knows about what is happening with her body, the less fear she will have when faced with challenges.

Some simple words that can increase a mom's confidence might be:

- "Your body is already preparing to breastfeed."
- "Trust in your body and your baby. Your baby has the instinct to breastfeed."

When Breastfeeding is Not Recommended

Myths concerning breastfeeding are abundant. Be sure to review the list of myths about breastfeeding in Appendix A and familiarize yourself with the suggested responses.

Although breastfeeding is best for infants, there may be times when breastfeeding is not recommended such as when a mom has a certain virus or is undergoing certain treatments. These conditions are listed the in Appendix B. Be sensitive to mothers who are unable to nurse because of these conditions and refer the mom to appropriate staff for further counseling.

Part 4 Test: This is the end of Part 4. Go to your Breastfeeding Promotion and Support Workbook to complete Part 4 test questions.

Communication with WIC Families About Breastfeeding

Getting Started Part 5

WIC serves over half of the babies born in Texas and the majority of these babies are breastfed. Because of this, it is important that all WIC staff be familiar with basic breastfeeding techniques to help moms get off to a good start.

Objectives

After reading Part 5, you'll be able to:

- List three breastfeeding positions.
- Identify three signs that a baby is hungry.
- Recall why a good latch is important.

The First Hour after Birth

There are nine stages that occur in the first hour or two after birth when a baby is placed immediately skin to skin with his mother. The stages are natural for the baby and if the baby is allowed to go through the stages undisturbed, the likelihood of breastfeeding success is greatly enhanced. Table 5.1 describes infant behavior at each of the nine stages.

Table 5.1 Nine Stages of New Baby Behavior

Stage	Approximate Timeline	Behavior/Description
Stage 1: The Birth Cry	immediately after birth	helps the baby's lungs expand
Stage 2: Relaxation	first minutes of life	happens when the baby relaxes after the birth cry
Stage 3: Awakening	3 minutes after birth	the baby will make small head and shoulder movements, some mouth movements, & may open eyes
Stage 4: Activity	8 minutes after birth	the baby will show increased mouthing/sucking movements, bring his hand to mouth, baby may keep eyes open and look at breast
Stage 5: Rest	throughout 1st hour	the baby may rest between periods of activity throughout the first hour or so
Stage 6: Crawling	35 minutes after birth	the baby will make intentional crawling pushing movements towards the breast
Stage 7: Familiarization	45 minutes after birth	the baby will lick the nipple and touch/massage the breast, this stage may last for 20 minutes or more
Stage 8: Suckling	1 hour after birth	the baby will take the nipple, self attach, and suckle at the breast after an un-medicated birth (this may take more than an hour after medicated birth)
Stage 9: Sleep	1.5 – 2 hours after birth	happens after suckling, the baby will usually sleep about 1 ½ to 2 hours

Widstrom 2010

It is currently common practice for healthy newborns to be separated from their mothers soon or immediately after delivery. Fortunately, there is a national push for hospitals and birthing facilities to adopt

practices that support breastfeeding. Those practices are the Ten Step to Successful Breastfeeding discussed in Part 1 of this module. One of the steps critical to the baby's first moments is to place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour and encourage mothers to recognize when their babies are ready to breastfeed, offering help if needed. When this step is practiced, it allows babies to go through the nine natural stages undisturbed and to breastfeed more successfully.

Skin to Skin

Babies held skin-to-skin with their mothers cry less often, breathe easier, and stay warmer than babies who are separated from their mothers. It also stabilizes the infant's heart rate and blood sugar (Christensson 1992). Skin-to-skin contact causes a surge of oxytocin to be released in the mother and baby. Oxytocin causes the mother's uterus to contract, causes her colostrum to flow easily, reduces pain in the mom and baby, and creates feelings of love and attachment. Oxytocin will also cause the temperature of a mother's breasts to rise, keeping her baby warm (Uvnäs-Moberg, 1998). If a mother has twins, her right and left breast temperatures will differ to accommodate each infant (Ludington-Hoe 2006).

Immediate skin contact and early suckling after birth are both associated with breastfeeding success and increased breastfeeding duration (Widstrom 1990, De Chateau, 1977). A review of eight studies looking at early skin-to-skin contact found that mothers who practiced skin-to-skin were twice as likely to be breastfeeding at 1 to 3 months than those who did not practice skin-to-skin, and that their infants breastfed an average of 42 days longer than those who were separated (Moore 2007).

The First Milk — Colostrum

Colostrum, or the first milk, is produced in the first few days. It is usually a thick, clear to yellowish fluid that begins forming about the 12th to 16th week of pregnancy. Colostrum is rich in ingredients that will protect your baby from illness and disease. It helps to coat the infant's gut preventing bacteria from attaching to the walls and causing disease like diarrhea. If mom has a preterm infant her colostrum has even stronger disease protectors than the colostrum of

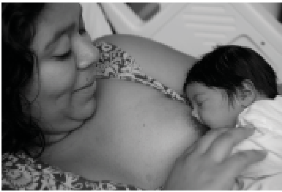
mothers with full term babies. Therefore, it is extremely important for the preterm infant to receive mother's milk. (Walker, 2011, p.5).

Colostrum has a stool softening effect on the newborn that is important in removing the **meconium**, or black, tarry stool from the gut. Colostrum is produced in small amounts and infants take in about a teaspoon per feeding (Spangler, 2008).

Feedings Start Small

A newborn's stomach does not expand in the first few days and can only hold a small amount of food. The first day of life, the infant's stomach is the size of a shooter marble. Around day three it grows to the size of a ping pong ball and by day 10, when the second milk is present, the baby's stomach is about the size of an extra-large egg (Silverman, 1961, Scammon, 1920, Zangen, 2001). When an infant is fed breastmilk substitute or formula, it is often given in larger amounts than his stomach can handle. Most infants spit up the extra fluid.

Activity 5.1 — Infant Stomach Capacity
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.



Breastfeeding Positions

The most common breastfeeding positions are laid back nursing, cradle and cross-cradle hold, football hold, and lying down.

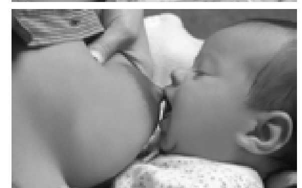
- **Laid Back Nursing —** The mother simply lays back, places her baby between her breasts, and allows the baby to self-attach to her breast. A blanket can be placed over the baby's back for warmth.
- **Cradle Hold —** In this position the mother cradles the baby in her arms, holding the baby at breast level and supporting her baby with her forearm. The baby is held with his chest facing mom's so that he does not have to turn his head in order to get to the breast.
- **Cross-Cradle Hold —** This position is the same as the cradle hold except mom supports her baby's head with one hand with her fingers at the base of the baby's head and supports her breast with the other hand.

- **Football Hold —** Mothers who have a cesarean section may find this position comfortable. In this position, the baby is tucked under mom's arm while she supports his back and head with her forearm

- **Lying Down —** Most mothers find this position comfortable and relaxing. Mom and baby lie on their sides facing each other. The baby's head is in line with the nipple so that he can easily attach.

Attaching to the Breast (Latch)

A good latch is the most important part of breastfeeding. A good latch should keep the mother's nipples from becoming sore and will help assure the baby is getting enough to eat. Poor latch or positioning is the most common reason for sore nipples.



To achieve a good latch in a non laid-back position, the mother should:

1. Support her breast by placing her thumb on top and four fingers below, keeping her hand away from her areola.
2. Tickle her baby's upper lip with her nipple until the baby opens wide and then quickly bring the baby onto her breast.

Signs that the baby is latched onto the breast include:

- The baby's lips are flipped out.
- More of the bottom of mom's areola is in the baby's mouth than the top.
- The baby's chin is buried in mom's breast with the nose tipped away or lightly touching.
- The baby's tongue is visible when infant's lower lip is pulled down.

Breast Fullness

Breast fullness usually occurs around 2 to 5 days postpartum, when the milk becomes more plentiful, thinner in consistency, and changes to a white color. Frequent nursing keeps the breasts from becoming too full. A very full breast is difficult for a baby to latch onto. A warm shower or warm, wet towels placed over the breasts for a few minutes before feedings can soften the breasts. Hand expression or reverse pressure softening can be used to further soften the breast, if needed. Cold packs can be used between feedings for comfort.

Hand Expression of Breastmilk

Hand expression is a useful skill for all breastfeeding mothers to know. This skill not only helps express milk for bottle feedings, but it can help relieve engorgement or even help wake a sleepy baby.

The steps to hand expression are:

- Wash hands and container to collect the milk.
- Place fingers and thumb about one inch behind the nipple.
- Gently press fingers and thumb back toward ribs, bringing fingers and thumb together.
- Relax hand and repeat.

It may take a few minutes of repeating this process to see any milk. This is normal and is to be expected.

Activity 5.2 — Hand Expression and Reverse Pressure Softening
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Signs of Hunger and Fullness

Babies tell their mothers when they are hungry and when they are full through body language. These signals include:

Signs of Hunger	Signs of Fullness
Restless body movements and rapid eye movements under eyelids when asleep	Sudden release of breast and nipple
Mouth and tongue movements	Falling asleep
Bringing hands to face or mouth	Relaxing body and fists

How Often to Feed

It is normal for babies to nurse often. The newborn has a tiny stomach and it empties quickly. Many babies will cluster feed, or nurse almost constantly at one time of the day. Most babies do this in the evening. This is completely normal. It does not mean that mom does not have enough milk. The more frequently mom nurses the baby the more milk she will make.

Most newborns show signs of hunger at least 8 to 12 times a day or every 1 to 3 hours. Babies who do not show signs of hunger at least eight times a day should be awakened to feed.

Sleepy Babies

Sleepy babies are not good at showing signs that they are hungry. A mom can help the baby wake up and feed by placing him in skin-to-skin contact and gently rubbing his back, arms, hands, and feet. She can talk to him in a calming voice. When he begins to move more or opens his eyes, the mom can move him to the breast to feed. When he stops suckling, the mom can gently squeeze and massage her breast. Most sleepy babies will get better at showing hunger cues within a few days. Sleepy babies may need to be awakened to nurse at least 8 times a day or every 1 to 3 hours during the day and have no more than one 4-hour sleep period in 24 hours.

How to Know if a Baby is Getting Enough

Weight gain is the best way to tell if a baby is getting enough to eat. Newborns often lose weight in the first couple of days of life. A baby should regain his birth weight by day 10 to 14. After he regains his birth weight, he should gain about 4 to 7 ounces a week. By day six, many breastfed babies will dirty almost every diaper. This is normal because breastmilk is very gentle and easily passed through the baby's system.

Counting the number of feedings, wet and dirty diapers, and color changes in a baby's diapers is another way to tell if a baby is getting enough to eat.

Table 5.2 Approximate Number of Feedings and Wet/Dirty Diapers Expected for Newborns

During the First 4 Weeks	Number of Breastfeeds	Number of Wet Diapers	Number of Poopy Diapers	Color of Poop
Day 1	At least 6	Number of wet and poopy diapers will vary		Black
Day 2	At least 8	Number of wet and poopy diapers will vary		Black/Green
Day 3	At least 8	3 or more	3 or more	Green/Yellow
Day 4	At least 8	4 or more	3 or more	Green/Yellow
Day 5-28	At least 8	6 or more	3 or more	Yellow

Growth Spurts

Babies go through several growth spurts in their first year. During this time a mom may feel as though her baby is eating constantly for one to three days or sometimes for up to a week. Her body will naturally respond to the frequent nursing by making more milk.

Growth spurts often occur around:

- 1 to 3 weeks of age
- 6 weeks of age
- 3 months of age

Multiples

Mothers who have more than one baby can still breastfeed. Their bodies will produce more milk to meet the needs of their babies. Multiples can be positioned and latched on just like single babies. However, these moms may need extra encouragement and support.

Safe Sleep

Placing babies in a safe sleep position is important to reduce the risk of **Sudden Infant Death Syndrome** (SIDS). Babies who are put to sleep and to nap on their backs are much less likely to die from SIDS. Overly warm babies are also more at-risk for SIDS so it is safest to put babies to sleep with light clothing.

The best place for an infant to sleep in the first few months is in the parents' room in a safety-approved crib or bassinet with a firm mattress and a well-fitting sheet made for the mattress. The sleep area should be clear of any suffocation hazards like stuffed animals, blankets, pillows, or bumper pads. Babies should never be placed to sleep on soft mattresses or other soft surfaces such as cushions, sofas, chairs, waterbeds, or beds up against the wall or with loose headboards. To find safe sleep handouts for your WIC participants in English and Spanish, visit http://www.dshs.state.tx.us/mch/#safesleep2.

Mom's Needs

Moms should be encouraged to relax and take care of themselves. Encourage mom to sleep when the baby sleeps and lie down for feedings if it is more comfortable. Making a breastfeeding area in the house with snacks, drinks, phone and remote controls nearby will keep the mother from having to get up and down so often. Let her know that it is important to take care of herself and that she may need help during the first few weeks taking care of her every day chores.

Building Confidence in Mothers

Breastfeeding may be easy for some moms and babies and more difficult for others. Remind moms that they often feel clumsy the first time they do anything. Try this analogy:

> Remember the first time you rode a bike or skated? You did not stop just because you felt clumsy. Instead, you practiced until you had perfected your skills.

The same is true with breastfeeding. Mothers and babies sometimes have to practice until they perfect their skills.

Part 5 Test: This is the end of Part 5. Go to your Breastfeeding Promotion and Support Workbook to complete Part 5 test questions.

Postpartum Support for the Breastfeeding Dyad

Part 6

Becoming a new parent can be an exciting and challenging time. New babies bring obvious excitement for the entire family, but during this time of happiness it is easy to overlook the tremendous amount of stress new mothers may feel.

Adjusting to parenthood can be challenging in the beginning, especially for women who may experience physical discomfort, emotional changes coupled with hormonal shifts, new responsibilities, and lack of sleep. Some women face additional challenges, like living in poverty or lack of support from friends and family. Recognizing such barriers, WIC has taken a role in providing and promoting loving support to new breastfeeding mothers. All WIC staff play an important part in reducing breastfeeding challenges or barriers and providing ongoing breastfeeding support.

Objectives

After reading Part 6, you'll be able to:

- Recall three key concepts needed to provide successful breastfeeding support.
- Describe the different infant behaviors.
- Identify breastfeeding complications that would require a referral to the peer counselor, the IBCLC or other designated breastfeeding expert, and the health care provider.

Providing Timely Support

Proper management of breastfeeding requires quick assessment and support. Each staff member plays a crucial role in supporting a mother's decision to breastfeed and referring her to the appropriate person to get her the help she needs. Most breastfeeding challenges can be resolved quickly with timely interventions. When breastfeeding challenges are not addressed right away, they can quickly turn into major problems. For example, engorgement that is untreated can lead to a decrease in mother's milk supply and a breast infection.

It is equally important for moms to receive frequent follow-up after every assessment until breastfeeding is going smoothly. Many mothers continue to have challenges or questions about breastfeeding. Some mothers do not get enough, or any support from family or friends. WIC may be their only source of breastfeeding support. As a lifeline, the things you say to mothers matter. Your comments can make the difference in whether women start or continue breastfeeding. Here is a positive example of something you can say to a mom who is having problems:

- "Sometimes breastfeeding can get off to a rocky start, but WIC can help you get through this rough patch one day at a time. Just know that you are doing a great job! Let me get someone who can help you."

A simple phone call to "check in," or a reminder that says breastfeeding support is available by a peer counselor or other breastfeeding expert can improve breastfeeding success and boost a mom's confidence. Often, new moms have questions or concerns and just need to hear that their experiences are normal.

Activity 6.1 — Timely Support Case Study
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Addressing Early Postpartum Concerns

All clinics are required to have a Staff Referral Protocol posted so that WIC staff know who to refer participants to if they don't know how to answer breastfeeding questions. Frequently, WIC participants

feel comfortable revealing breastfeeding concerns with whomever they speak to about other personal information, such as a clerk who is taking income information. If a mom brings up a breastfeeding concern you are unfamiliar with or has a question you are unable to answer, your local agency Staff Referral Protocol will tell you who you should refer the client to. Here are some examples of what to say when you need to refer a mom to a WIC designated breastfeeding expert:

- "I can see you are frustrated. Let's get you some assistance so we can work through this quickly."
- "I can tell that you are worried. I'm going to get you someone who can provide immediate help."
- "I'm so glad you called – let's get you an appointment today to see someone who can help you right away."

Some local agencies create additional referral guides based on the possible breastfeeding issue and the knowledge of staff. Refer to Appendix C of this module to find sample staff referral guides.

Activity 6.2 — Client Referral Handout
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Understanding Infant Behavior

Babies have their own language, but new parents are rarely taught to recognize normal infant behaviors. Many parents misread normal infant behaviors as signs that breastfeeding is not going well or the baby is not getting enough to eat. Misreading infant behaviors can lead to a variety of problems including early discontinuation of breastfeeding and the opposite — overfeeding of a breastfed baby.

Engagement and Disengagement Cues

Crying is a natural behavior for babies, just as it is for them to wake, eat and interact with their surroundings. When babies cry, parents may see tears, color changes, tense muscles and rapid breathing. Once infants are this upset, it can be difficult to get them to respond, which can be stressful for parents. However, crying is a helpful way for babies to tell their parents that something is wrong or needs to change.

All babies have cues that tell parents when they want to engage or disengage. These cues are shown in Table 6.1.

- **Engagement cues** indicate that babies are willing to interact with their environment. Interaction may include touching, making eye contact, making quiet sounds, or eating. Babies showing engagement cues are going to be more willing to breastfeed.
- **Disengagement cues** indicate that babies need a break from interacting with their environment. Babies showing disengagement cues may be soothed by offering quiet time, dim lights, and limited touching.

Table 6.1 Expected Normal Infant Behaviors and Cues:

Infant Engagement Cues		Infant Disengagement Cues	
Subtle	Obvious	Subtle	Obvious
Eyes Open	Smiling	Looks away	Turns away
Relaxed	Rooting	Rapid breathing	Coughing or choking
Interacting with surroundings	Eye Contact	Glazed or grimaced expression	Pushes or arches away
Time to breastfeed or teach breastfeeding		Time to give baby peace and quiet	

When a mother tries to breastfeed a baby who is showing disengagement cues, the baby will usually push away, make an awful face, or cry. A mother who is not familiar with her baby's cues may get the wrong idea and think:

- My baby doesn't want my milk or does not like to breastfeed.
- I don't have enough milk.
- My baby doesn't like me.

Infant States

The way in which infants respond to their own bodily needs, their environment and to their caregivers depends upon the infants' state of consciousness or awareness. There are six **infant states** — quiet alert, irritable, crying, drowsy, quiet sleep, and active sleep — as shown in Table 6.2.

- Babies are easiest to breastfeed when they are showing hunger cues (see Part 5), engagement cues, and are in the quiet alert state.
- Babies showing quiet alert behaviors without hunger cues should be held, talked to, cuddled, and hugged.

- Babies who are showing hunger cues, but are in an irritable state, can be harder to breastfeed. Babies who are showing hunger cues along with crying behaviors should be soothed before offering the breast.
- Babies showing irritable or crying behaviors without hunger cues may need their diaper changed, their position changed, or need to be soothed with repetitive actions or sounds.
- Babies showing quiet sleep or drowsy behaviors without hunger cues should be allowed to rest.
- Babies in the active sleep state should be allowed to sleep unless they are showing hunger cues less than every 3 hours or less than 8 times in 24 hours.

Table 6.2 Types of Infant States, Behaviors and Proper Responses

Infant State	Infant Behavior	Addressing Infant Needs
Quiet Alert	Playful, responsive, interactive, animated	Best time for engaging. Optimal time for breastfeeding or teaching breastfeeding.
Irritable	Irregular breathing, fussy, sensitive to surroundings, common if hungry	If hungry, baby should be breastfed without further delay. Changing position or circumstances may improve behavior.
Crying	Rapid breathing, tense, tears, harder to console	Very stressful for parents. Parent should try soothing techniques like repetitive actions or sound.
Drowsy	Glazed appearance, delayed reactions, easily startled	If falling asleep at the breast mom should try gentle waking techniques like different positions, movements, sounds, or touch.
Active sleep	Eyes are closed but may flutter from closed to open. Infants make funny faces, chewing movements. Occurs in 30 minute cycles.	Babies cycle between active and quiet sleep and are more easy to wake during active sleep. Active sleep could mean baby is getting hungry again.
Quiet sleep	The infant's eyelids are closed and still, and face is relaxed.	Rest is important for babies. Allow babies to rest.

Mothers should be taught to recognize infant engagement, disengagement, and infant states along with hunger and fullness cues (see Part 4 for hunger and fullness cues). Encourage breastfeeding when engagement cues and quiet alert behaviors along with hunger cues are shown in infants. When mothers respond at the correct time with the correct action, babies are able to relax and feel happy and their mothers' breasts begin to represent a "safe place". As mothers get better at responding to different needs of their babies, their babies get better at communicating by using cues.

With this information you can build confidence in mothers and help them look beyond the early days and understand what is normal or what to expect. You are a valuable resource for new mothers to provide day-to-day encouragement and support.

Medication and Breastfeeding

Most illnesses will not affect breastfeeding and the same is true for most medications. However, the introduction of medication is a primary reason health care providers recommend weaning — even when it is not necessary. When working with breastfeeding mothers taking medication, be sure to refer them to the designated breastfeeding expert at your clinic.

Great resources for medications and breastfeeding include:

- *Medications and Mother's Milk* by Thomas W. Hale
- The Infant Risk Center at www.infantrisk.com or call 1-806-352-2519

A good way to communicate drug safety is by copying the specific medication information from the resources above and sharing the details with breastfeeding mothers and their health care providers.

Family Planning and Breastfeeding

A temporary and natural form of birth control is the Lactational Amenorrhea Method (LAM). It is a safe and effective method of family planning that does not require additional hormone treatment. For LAM to work successfully, women must meet the following criteria:

- Must be exclusively breastfeeding — no formula, no other liquids or foods, no exceptions.

- Must have an infant less than 6 months old.
- Must be breastfeeding on demand around the clock — or at least every 4 hours.
- Menses (monthly period) must have not returned at all.

LAM is only 98% effective when practiced correctly so condom use is recommended with LAM.

Hormonal contraceptives can be associated with a decrease in milk production. Women with questions about birth control should be referred to the designated breastfeeding expert at your clinic.

Nutrition and Exercise

How a mother eats or exercises has little to do with the quality or the quantity of her breastmilk. Mothers should be encouraged to follow the same nutrition guidance they were given during pregnancy to protect their own health. Caffeinated drinks should be limited to no more that 3 per day and moderate exercise should be encouraged.

Part 6 Test: This is the end of Part 6. Go to your Breastfeeding Promotion and Support Workbook to complete Part 6 test questions.

Supporting Mothers and Babies Who are Separated

Part 7

Separation is a common occurrence with mothers and babies in the world today. Reasons may include: mothers have to return to work or school; babies are sometimes born early because of prematurity; birth defects and hospitalization. Moms who are separated from their babies need extra support from WIC to help reach their breastfeeding goals.

Objectives

After reading Part 7, you'll be able to:

- Identify situations when a mother may need to provide pumped breastmilk to her infant.
- Recall ways for a mother to establish her milk supply if she is separated from her baby.
- Identify activities that make breastfeeding and returning to work easier.

Reasons for Separation During the Newborn Period

Premature Delivery

In the United States more than 500,000 babies are born **premature**, which is defined as being born at less than 37 weeks gestation. According to the March of Dimes, more than 70% of premature babies are born between 34 to 36 weeks **gestation**. Premature babies are not fully ready for life outside the womb. They lack enough of certain **enzymes** that help them digest their food, they lack fat and sugar stores needed to help regulate body temperature, and often have trouble breathing and breastfeeding.

It is quite common for twins or other multiple births infants to be born premature or have medical problems that require treatment in the hospital neonatal intensive care unit (NICU). Parents of multiples may have twice or three times the emotional ups and downs compared to parents who have one baby in the NICU. Often, one baby is released to go home before the other is. Having one baby at home and the other in the hospital may make it even more difficult for new parents because they have to spend time in both locations.

In Texas, 17.5 % of babies born to WIC-enrolled mothers are **premature**. (DSHS, 2011). Low birth weight affects about one in every 12 babies born each year in Texas and is the second leading cause of death for infants in the United States. Birth defects is the leading cause of death.

Fortunately, in the past ten years, the medical treatment and understanding of prematurity has improved greatly. Research now shows that premature babies who are breastfed have higher survival rates, lower rates of illnesses, and greater intelligence. Breastfed preemies are six to ten times less likely than formula-fed preemies to develop **necrotizing enterocolitis**, a devastating and sometimes fatal disease of the gut (Lucas 1990, Medline Plus 2011). With this advancing knowledge and science, most premature babies are able to grow up and live happy, normal, healthy lives.

It is important to remember that no parent ever wants to have a premature or sick newborn. For many parents, the size and ill-health of their babies may frighten them. When working with families of premature babies, WIC staff should be extremely sensitive and supportive of the situation.

Premature babies often cannot directly breastfeed. Even if a premature baby is latching on to his mother's breast, he may not be transferring milk well or completely emptying the mothers breast in order for her to establish a good milk supply. To establish a good milk supply all mothers of premature babies are advised to begin pumping within 6 hours after delivery and then 8 to 10 times a day

for 14 days (Meier 1993, Nyqvist 2008). Most hospitals help mothers with an electric breast pump during their stay. If the hospital does not supply electric breast pumps or a mom is discharged before her baby, she will need a breast pump from WIC the day she is discharged. Many mothers of premature infants will need to pump until their baby's original due date or longer.

> **Late Preterm**
>
> Babies born between 34 and 37 weeks are considered to be **late preterm**. Late preterm infants are often referred to as the "Great Pretenders" because they look and act like full-term infants. As a result, they receive less attention than they truly need (ABM, 2011).
>
> Late preterm babies are at risk for several health problems that may result in slow weight gain and failure to thrive. Their death rate is seven times higher than term infants during the first 27 days of life (Engle 2007).
>
> In addition, late preterm infants may not breastfeed effectively because they are often harder to wake, have an uncoordinated suck, swallow, breathe pattern and low energy levels (Walker, 2011).

If a WIC mother calls and says she delivered her baby early or needs a pump because she has a premature baby, treat it as a critical situation and be sure to address her requests with respect and tender care. Recognize that without a breast pump, her baby is unable to get any of her milk, which is the best nutrition available. Squeeze the mom or her **proxy** into your schedule that day or see if a breastfeeding peer counselor or other trained breastfeeding staff can deliver a pump. Help ensure the mom has access to breastfeeding support the same day by promptly transferring her to the designated breastfeeding expert at the WIC clinic.

Activity 7.1 — Common Feelings
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Sick or Fragile Baby

There are 4 million live births in the United States each year. Of these, one in every 33 babies is born with a defect (Centers for Disease Control and Prevention, 2011). These defects may vary, but can be life threatening. Sometimes the defect needs quick correction, while at other times, it is best to delay the surgery. The most common birth defects that negatively affect breastfeeding include:

- Cardiac Defects
- Down Syndrome
- Cleft Lip
- Cleft Palate

Sick or fragile babies, such as those with birth defects, may have trouble breastfeeding or may not be able to directly breastfeed. As a result, mothers of these special babies need long term breastfeeding support. WIC may need to issue some of these mothers an electric breast pump for up to a year so they can provide breastmilk for their babies.

Sick Mother

A mother who is ill or hospitalized may not feel well enough to breastfeed or may worry that she might make her baby sick by breastfeeding. During these circumstances, mothers are to be referred to the designated breastfeeding expert for breastfeeding assistance or pump issuance. The designated breastfeeding expert is responsible for providing close follow-up as needed however, it is important that all WIC staff take time to praise mothers for their breastfeeding efforts.

Supporting the Mother During Separation

All WIC staff, no matter what their role is, can help reassure mothers that providing breastmilk to their babies can be life-saving. Simply telling mothers how important their milk is for their babies or by reminding them that they are an important part of their babies' care plan are both great ways to provide encouragement.

Another way to be supportive of mothers is to respond to their requests and decrease the number of obstacles that WIC has control over. When a mom calls for an appointment, ask questions about her

situation. For example, how old is the baby? Is the baby still in the hospital? Was mom enrolled in WIC during pregnancy?

If the baby is still in the hospital and mom was already enrolled in WIC during pregnancy, she does not need a certification appointment to pick up a breast pump. Instead, have her come to the clinic as soon as possible for breast pump issuance. If she is not enrolled in WIC, try to schedule her for a certification appointment within two business days. In either situation, refer all new mothers to the breastfeeding peer counselor or to the clinic's designated breastfeeding expert for breastfeeding support.

It is extremely important that WIC clinics have a method in place for quick breast pump issuance. Remember, mothers who need to establish their milk supply without their babies must begin pumping no later than six hours after birth and every two to three hours after that, day and night. Therefore, the sooner mothers get breast pumps, the sooner they can get started with expressing milk. Expressing milk early and often will help establish a good milk supply and increase breastfeeding success.

Activity 7.2 — Akira Case Study
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Breastfeeding and Returning to Work or School

Prenatal Education

Although many women continue to breastfeed after returning to work or school, it is one of the main reasons for not breastfeeding or for discontinuing it. Women who plan to return to work or school may have many questions, such as:

- How will I talk to my employer about breastfeeding or pumping?
- Will I have enough milk?
- Where will I express milk during work hours?
- How do I store my milk while at work?
- How often will I need to pump?
- How will my baby be fed when I am at work?

WIC can help ease some of these worries by talking to mothers about breastfeeding during pregnancy. Begin by helping women create breastfeeding or pumping plans. For those mothers who plan on returning to work, make sure their plan addresses the common issues related to returning to work.

- Where to pump:
    - A private room
    - A cube draped with a curtain or blanket to allow for privacy
- The time needed to pump:
    - She will need to pump as often as her baby nurses at home or about three times during an eight-hour work day during the first 6 months postpartum.
    - Pumping sessions will probably last 20-30 minutes each.
- Where to store milk:
    - A soft lunch container inside a common refrigerator.
    - A small cooler with ice packs.

Planning in advance will make it easier for mothers to meet their breastfeeding goals.

Section 4207 of the Fair Labor Standards Act

Employers are required to provide breastfeeding employees:

Reasonable break time to express breastmilk for 1 year after a child's birth.

A private place, other than a bathroom, that may be used to express breastmilk.

What else can WIC do?

- Inform mothers that breast pumps are available from WIC. Talking to the mother during pregnancy about the WIC pump program may give her more confidence knowing that pumps are available through WIC if she needs one.
- Inform mothers of the 2010 Fair Labor Standards Act (FLSA) requirements, which require most employers to provide a reasonable break time for nursing mothers. Protections are provided to FLSA non-exempt employees. If she is unsure of her FLSA status, try the following:
    - Check her pay stub for the words "non-exempt" or have her check for them. If the words "non-exempt" are on her pay stub, her employer must allow her breaks to pump at work.
    - Suggest she ask her supervisor if she is an "exempt" or "non-exempt" employee.
    - Suggest she visit the working mom section of www.breastmilkcounts.com for more information on this law.

- Educate mothers on employer benefits of supporting breastfeeding employees so they can share them with their employer.
- Encourage mothers to talk with their supervisors before going on maternity leave.
- Encourage mothers to look for support from family and peers. Supportive suggestions include:
    - Alternate breaks with other moms at the office who are pumping.
    - Have a family member bring the baby to mom's school or worksite at lunch time to nurse.
    - Talk with a family member or peer who has breastfed for ideas on how to make working and breastfeeding easier.
    - Talk with the school nurse or counselor to find ways to pump at school.

Employer Benefits of Supporting Breastfeeding:

- Lower health care costs due to healthier babies and mothers
- Lower absenteeism for mothers
- Reduced staff turnover
- Increased staff morale and productivity
- Positive image in the community

For more information or tips visit: www.texasmotherfriendly.com

Activity 7.3 — Susan Case Study
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Postpartum Education

Before Returning to Work or School

Most mothers find comfort in having a small amount of expressed breastmilk set aside in their freezers. However, this may be especially important for the peace of mind of mothers who are returning to work or school. Here are some tips to help moms build up a supply of stored milk:

- Begin pumping 2 to 6 weeks before returning to work or school.
- Store milk in a container with a lid or in a sealed bag labeled with the baby's name and date expressed.
- Only put as much milk in the bottle as the baby takes during a feeding — about two to four ounces for most infants 1 to 3 months old.
- Become familiar with safe milk storage guidelines (See Table 7.1).

- Have a trial “workday.” Mom can go shopping or another activity during work hours to see how the baby responds to the childcare provider and how well the baby will feed from a bottle.
- Read about breastfeeding and returning to work from WIC materials and reliable web sites, such as http://www.breastmilkcounts.com/working-moms.html

Introducing a Bottle

Breastfed babies typically prefer the real thing, which can make introducing a bottle tricky for some families. Here are some tips to make bottle-feeding easier:

- Have someone other than mom introduce the first bottle.
- Offer about ½ to 1 ounce of expressed breastmilk in the bottle.
- Use baby-led bottle-feeding techniques described later in this module.
- Try different bottle nipples to find one that the baby likes.

Table 7.1 Milk Storage Guidelines

Location	Best used within	Still safe to use within	Temperature
Countertop	3 hours	3 hours	Room temperature must not be warmer than 85°F or 29°C. Containers should be covered and kept as cool as possible.
Insulated cooler bag	24 hours	24 hours	Keep ice packs in contact with milk containers and limit opening the cooler bag.
Refrigerator	3 days	5 days	At or below 39°F or 4°C
Freezer section inside of a refrigerator	2 weeks	2 weeks	At or below 5°F or –15°C
Freezer section of refrigerator with a separate door or chest or upright deep freezer	6 months	12 months	Below 0°F or –17°C

After Returning to Work or School

The fear of not having enough milk is the number one reason women quit breastfeeding. Unfortunately, many women may see a decrease in their milk supply when they return to work. There are many reasons this may occur but one obvious cause that should be avoided is missing pumping sessions during work. Mothers who are returning to work or school will appreciate all the tips they can get on maintaining a good milk supply. Here are some additional tips to share with pumping mothers who want to maintain or boost their milk supply.

To maintain supply:

- Pump for each time the baby would have nursed at home.
- Do not allow the breasts to get overly full.
- Gently massage each breast prior to pumping to stimulate letdown.
- Look at your baby's picture or listen to a recording of your baby's voice while pumping.
- Follow the pump manufacturer's guidelines to ensure the parts are working correctly.
- Pump the breast that is still full if the baby nurses on only one breast at a time.

To boost supply:

- Add an additional pumping session by pumping after or between normal pumping or feeding intervals.
- Breastfeed more frequently when mom and baby are together in the evening or on weekends.
- Take a "milk supply holiday" and stay home to nurse for a day or two.

Baby-led Bottle-Feeding

Baby-led bottle-feeding is a technique that imitates how a baby feeds at the breast. It is used to slow bottle-feeding down and is recommended for all infants because it helps prevent overfeeding in both breastfed and formula-fed infants. This is especially important

for premature babies who have uncoordinated suck, swallow and breathe patterns.

Baby-led bottle-feeding gives babies control over the amount of milk consumed, just like breastfeeding does. It supports the breastfeeding relationship, particularly for mothers who are separated from their babies on a regular basis.

The steps to baby-led bottle-feeding are:

1. Feed when the baby shows hunger cues (See Part 5).
2. Hold the baby in an upright position to feed, supporting the head and neck with the hand.
3. Use a slow-flow nipple and keep the nipple full of milk. Gently brush the nipple on the baby's lips and allow the baby to draw the nipple in.
4. Pause frequently to imitate natural pauses at the breast. Take breaks to burp the baby.
5. Switch holds from one side to the other side midway through a feed to imitate breastfeeding. This improves eye stimulation and development and keeps the baby from developing a side preference which can make breastfeeding harder.
6. Stop when baby releases the nipple or shows other fullness cues (See Part 5). Don't encourage baby to finish the bottle.

Baby-led bottle-feeding allows babies to drink the amount they want rather than being overfed. Avoidance of overfeeding encourages babies to breastfeed when mothers and babies are together (UNICEF 2011).

Part 7 Test: This is the end of Part 7. Go to your Breastfeeding Promotion and Support Workbook to complete Part 7 test questions.

Supporting Mothers and Babies Who are Separated

Helping Mothers Continue the Breastfeeding Relationship

Part 8

Once a mother is comfortable breastfeeding and has adjusted to caring for a new baby, breastfeeding tends to become easier and her confidence grows. Even after breastfeeding is well established, however, most mothers continue to have questions about what to expect next with breastfeeding and whether their baby is doing well. WIC staff continue to play an important role in supporting breastfeeding mothers of older infants and toddlers.

Objectives

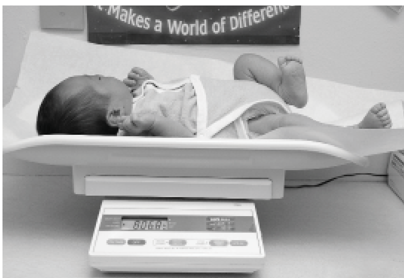
After reading Part 8, you'll be able to:

- Name common issues that arise when breastfeeding an older infant.
- Describe how the introduction of complementary foods affects the breastfeeding relationship.
- Define the different types of weaning.
- Name two resources for information on breastfeeding and medication.

Normal Growth of Babies

Breastfeeding is the normal way to feed all infants. Therefore infant growth guidelines are based on the growth of healthy, breastfed babies. During the first 6 months, breastfed babies experience rapid growth. Their weight doubles from their birth weight by 4 to 6 months of age and then it begins to slow down. By 12 months, babies typically weigh 2½ to 3 times what they weighed at birth. Table 8.1 illustrates the expected growth of normal (breastfed), healthy babies.

Formula-fed babies grow differently than breastfed babies. Formula-fed babies tend to grow at a slower rate than breastfed infants in the first 2 to 3 months of life and then at an abnormally faster rate from 3 to 12 months. This may be due to overfeeding (Kleinman, 2009). The Centers for Disease Control and Prevention estimates that breastfeeding reduces the risk of childhood overweight by 15 to 30 percent or more (CDC, 2007). In fact, the longer a child breastfeeds, the less likely he or she is to be overweight (Ip, S 2007).



Mothers often look at their baby's weight and growth to determine whether they have sufficient milk. They may compare their baby's growth with the growth of other babies who may or may not be breastfeeding. Mothers who are unsure about their baby's growth can be encouraged to bring their baby to the WIC clinic to be weighed. If the mother is concerned about her baby's growth, remind her that babies grow at different rates depending on their genetic make-up and that of their parents and refer her to the breastfeeding peer counselor, your clinic's designated breastfeeding expert or a nutritionist.

Table 8.1 Expected Weight Gain for Normal, Healthy Infants

Baby's Age	Normal Weight Gain
Early weeks	4-7 ounces per week
4-6 months of age	Double birth weight
7-12 months of age	2 ½ - 3 times birth weight
24 months	4 times birth weight

U.S. Department of Agriculture, Using Loving Support to Grow and Glow in WIC: Breastfeeding Training for Local WIC Staff, April 2010

Extra Milk

Once mothers have established their supply, they may tell you they are producing more milk than they need and have a lot stored up. If they tell you this, ask if they would be interested in donating some of it to a milk bank to help saves the lives of medically fragile infants. If they are interested, share the information below with them.

- Mother's Milk Bank at Austin — www.milkbank.org — 877-813-6455
- Mother's Milk Bank of North Texas — www.texasmilkbank.org — 866-810-0071

Some WIC agencies even serve as drop-off locations for donated human milk.

Teething

Many mothers worry about teething and breastfeeding long before their baby has the first tooth, and assume they will need to wean. Reassure them that breastfeeding can continue even when their baby is teething. Start by letting them know their concerns are important by saying something like:

- "I can see why you'd be concerned about that."
- "Lots of breastfeeding mothers worry about that. I wondered about it, too."

Let them know that babies can continue to breastfeed while teething without causing pain. As teeth emerge, the baby will learn how to nurse without "biting." Encourage mothers to break suction and remove their baby from the breast if he or she bears down or chews while nursing, even before teeth erupt. This teaches the babies that they will not be rewarded for this behavior.

Oral health is important for all babies, including breastfed babies. Encourage mothers to clean the gums and teeth after feedings by wiping down the gums, cheeks and tongue with a clean washcloth.

Introducing Solid Foods to a Breastfed Baby

Breastfeeding mothers often receive conflicting advice about when to start solid foods. WIC staff can help them sort through the mixed messages they receive to offer solids appropriately. All major health organizations recommend that infants be exclusively breastfed (breastmilk only) for about the first six months of life. Despite this recommendation, many mothers introduce solid foods too early. When speaking to moms, affirm her questions or concerns by saying something like:

- “Many mothers have questions about starting solid foods.”
- “It’s great that you are concerned about the baby’s next developmental step.”

WIC staff should also inform mothers that starting solid food will replace some of the baby’s breastmilk intake, but breastmilk will continue to provide most of their baby’s nutrition. Encourage mothers to continue breastfeeding and congratulate her for providing the best possible nutrition for her baby.

Refer to the Infant Feeding Module for more information on introducing solid foods to infants.

Nursing Strikes

Occasionally a baby will suddenly refuse to breastfeed for a period of time lasting from several feedings to several days. Before 12 months of age, this is called a “nursing strike” and can cause alarm in mothers. A nursing strike can occur because of illness in the baby (such as an ear infection) or stress, but most often the reason for the strike is never determined. Mothers often feel rejected when their baby goes through a nursing strike, and must deal additionally with the stress of coaxing the baby back to breast and dealing with engorgement. Showing a mom that her baby loves her will be important during this time. Examples of what to say to a mom who has questions about a possible nursing strike include:

- “What a lucky baby to have a mom who is working so hard to make this work.”
- “Many babies go through a period like this. What a great mom you are to continue working on this.”
- “Look at how your baby is looking at you. He knows how much you love him!”

Suggest that moms minimize the distractions in the room by dimming the lights and decreasing the noise. They can also try other breastfeeding positions and begin nursing when their babies show early signs of hunger, are nearly asleep or are just beginning to wake. Sleepy babies are sometimes more cooperative. Moms can also hold their babies skin to skin and allow them to self-attach when they are ready, or give them expressed milk in a cup, spoon or dropper until breastfeeding resumes. Be sure to refer to your clinic's peer counselor or other designated breastfeeding expert when a mother says her baby might be experiencing a nursing strike.

Breastfeeding While Pregnant

Breastfeeding mothers who become pregnant do not need to stop nursing. Changes in the taste and amount of breastmilk may cause older infants and toddlers to wean. In some instances, health care providers may encourage mothers with high risk pregnancies to wean the older infant or child from breastfeeding due to mild uterine contractions experienced during breastfeeding. These contractions are not a concern during a normal, uncomplicated pregnancy.

Tandem Nursing

Tandem nursing is when a mother breastfeeds two or more children, including a mother of multiples (twins, triplets, etc) or a mother with an older child and a newborn. Help the mother prepare by offering her suggestions for talking to the older sibling:

- "Will you be mommy's helper while the baby is breastfeeding?" and then suggest that the big brother or sister sing a lullaby to the baby or touch the baby gently.
- "Will you show mommy that you can take turns, since mommy's milk is the baby's only food?"

The first couple of days after the new baby arrives may be overwhelming. Remind the mother to take breastfeeding one day at a time and reassure her that her milk supply will adjust based on supply and demand. Congratulate her on her decision to share the breastfeeding experience with the older child and encourage her to seek some "mommy time" — including a referral to local breastfeeding support group for mothers who have tandem nursed.

Weaning

Babies are born with the natural instinct to breastfeed. As they grow, they begin to mature and slowly outgrow breastfeeding. This can happen at different ages depending on the child or other factors that affect breastfeeding. Simply stated, **weaning** is a natural occurrence that gradually happens over time when foods or liquids other than breastmilk are slowly introduced to the growing infant. These new foods or liquids replace breastmilk in the baby's diet and the breasts respond by making less and less milk until they discontinue making milk completely.

Some mothers may be told by family, friends or health-care providers that they should wean their babies early. Some reasons include:

- Teething
- Desire for baby to sleep through the night
- Going back to work or school
- Nursing strike
- Pregnancy
- Illness
- Growth/Appetite spurts
- Medication

The mother's concerns should be validated and information should be given to enable the mom to continue breastfeeding if she desires.

Activity 8.1 — Are you STILL breastfeeding?
Refer to your Breastfeeding Promotion and Support Workbook to complete the activity.

Types of Weaning

WIC staff can help mothers weigh the advantages of continued breastfeeding against weaning. Offer mothers who are considering weaning the suggestion of partially breastfeeding at least some of the time instead. Many mothers do not realize that even some breastfeeding is better than no breastfeeding, and that partial breastfeeding provides health benefits to the baby and to the mother. Table 8.2 illustrates the different types of weaning.

Table 8.2 Types of Weaning

Types of weaning	Definition
Temporary weaning	When breastfeeding is either intentionally or unintentionally stopped for a short time due to a hunger strike, medication that must be taken by the mother, certain infections on the breast, mom or baby is unable to breastfeed for medical reasons, etc. It is important that mothers continue to pump or hand express breastmilk to maintain their milk supply.
Partial weaning	When feedings at certain parts of the day are gradually eliminated, such as with working moms who are unable to breastfeed or pump their milk during working hours, but who breastfeed while at home.
Natural weaning	When the child gradually weans him or herself.
Abrupt Weaning	When the mother must stop breastfeeding immediately for medical or other reasons. The method should not be recommended as it puts the mom at high risk for infection, can worsen depression in a mom and can cause infant distress.

Talking to Moms About Weaning

The question of when to wean is a very personal decision. When speaking to a mother about weaning, be sensitive to her decision and avoid judgmental statements about how long the mother has breastfed or how soon she wants to wean. If a mother expresses the desire to wean before her child is 12 months of age, discuss the option and benefits of partial weaning rather than total weaning. Even one feeding a day helps provide important immune protection for a baby and meets a baby's need for comfort.

Encourage mothers to wean over a period of weeks instead of quickly. Gradual weaning is more comfortable for mothers and less stressful for babies. To gradually wean, mothers should discontinue the feeding the baby is least interested in first. After three or four days, they can drop another feeding and continue until weaning is complete.

Babies older than 6 months can be weaned to a bottle and/or cup, depending on their developmental ability. Bottle-fed babies should be entirely weaned from the bottle and onto a cup by about 12 months of age (USDA Infant Nutrition and Feeding). Babies younger than a year old and who are no longer breastfed need to receive iron-fortified infant formula.

Older babies often breastfeed for comfort at night or when they are hurt or sick. They can respond to a “don’t ask and don’t refuse” practice — or when a mother nurses upon her child’s request, but does not offer to breastfeed. Older babies or toddlers can sometimes be distracted from breastfeeding with other activities, such as visting the playground or eating a special snack. The key is to offer the distraction just before the request to breastfeed happens. This will help keep the child from requesting to breastfeed.

Abrupt weaning should never be recommended but may be necessary in some cases. If abrupt weaning is needed, a mom can:

- Cut back on the number of breastfeedings faster by expressing just enough milk to relieve discomfort but not enough to completely drain the breast.
- Apply cabbage leaves and ice packs to the breasts for comfort and take ibuprofen to help relieve swelling and pain.
- Wear a firm but non-binding bra for support.
- Give baby extra cuddle time.

If the baby resists taking a bottle or cup from the mother, she can ask another adult to offer it to her baby. Affirm that despite her reasons for weaning, she continues to be a wonderful mother having given her baby her milk. She should be proud of what she has accomplished and for the health that her baby will enjoy as a result. Refer a weaning mom to the peer counselor or other available WIC breastfeeding counselor for ongoing follow-up and encouragement.

Part 8 Test: This is the end of Part 8. Go to your Breastfeeding Promotion and Support Workbook to complete Part 8 test questions.

Helping Mothers
Continue the
Breastfeeding
Relationship

Appendix

Appendix A: Myths About Breastfeeding

Myth	What you can say to the mom
You can't breastfeed if you have **small breasts**.	• Women with small breasts can breastfeed. • The size of a woman's breasts has nothing to do with her ability to make milk.
You can't breastfeed if you're **stressed or angry**.	• A mother's breastmilk will not "spoil" or make her baby fussy if she gets upset. • The hormones released during breastfeeding actually calms both mother and baby.
The first "yellow" milk isn't good for your baby**.**	• Colostrum is very important for babies. • Colostrum is often called "baby's first immunization" because it provides so much protection to the baby.
Breastfeeding will make your **breasts sag**.	• Pregnancy and gravity cause the changes to your breasts. • Many women feel that their breasts look best while breastfeeding.
If you **don't eat well** you shouldn't breastfeed.	• A person with a poor diet will still make good quality breastmilk. • A breastfeeding mother should continue to take prenatal vitamins and eat a variety of foods for her own health.
If you have **diabetes** you shouldn't breastfeed.	• A mother with diabetes should breastfeed. • A mother with Type 1 diabetes may not have to take insulin as often. • Breastfeeding will help protect her child from developing diabetes especially if it runs in her family.
You shouldn't breastfeed if you **smoke**.	• The benefits of breastfeeding, even with tobacco use, still outweigh the risks associated with formula feeding alone. • A mother should smoke outside, away from her baby, then take off her outer layer of clothing and wash her hands before holding her baby.

Myth	What you can say to the mom
If someone else in your family had **low milk supply**, you might have low milk supply.	• Low milk supply does not run in families. • Milk supply is based on supply and demand. The more you breastfeed, the more milk you will make.
If you are breastfeeding you will never be able to drink **alcohol**.	• One adult beverage (12 ounces of beer, 5 ounces of wine, 1.5 ounce shot of liquor) will not harm the baby once the baby gets older and can go at least two hours between feedings. • Mothers should breastfeed right before (not after) having their drink and should wait two hours before breastfeeding again.
If you are sick, you shouldn't breastfeed because you might give it to your baby.	• It's even more important to breastfeed your baby if there is an illness going around. • You will be passing the antibodies needed to fight off the infection to your child through your milk.
You can't breastfeed if you have had **breast surgery** (implants or reduction).	• Many women with prior breast surgeries are able to successfully breastfeed.
Teen moms usually can't breastfeed.	• Young mothers can make plenty of milk for their babies.
If you are having **twins/triplets** you will have to give formula.	• Mothers of multiples can produce plenty of milk for their babies.
Once your child gets teeth or is old enough to ask for milk, it is time to wean.	• You can breastfeed even if your baby has teeth. • The American Academy of Pediatrics recommends breastfeeding for at least one year.

Myth	What you can say to the mom
If you become **pregnant again while you're still breastfeeding**, you will need to wean your first baby.	• Many mothers keep breastfeeding throughout pregnancy. • Breastfeeding during pregnancy and beyond is considered safe for most mothers and babies.
Breastfeeding **ties you down.** You can't go anywhere or do anything.	• Traveling with a baby is much easier when breastfeeding. You only need a few diapers and maybe an extra pair of clothes.
Breastfeeding makes children **too dependent.**	• Breastfed children tend to be more secure and independent than formula-fed infants.
Going back to work is more difficult.	• There is a law that requires employers to support their breastfeeding employees (see Part 7).

Appendix B: When Breastfeeding is Not Recommended

Breastfeeding is not recommended in infants with:

- **galactosemia**, a rare genetic metabolic disorder.
- mothers who have been infected with the **human immunodeficiency virus** (HIV).
- mothers who have been infected with **human T-cell lymphotropic virus** (HTLV) type I or type II.
- mothers who have active untreated **tuberculosis** disease (mothers receiving treatment can breastfeed).
- mothers who are undergoing radiation therapies; however, such nuclear medicine therapies require only a temporary interruption in breastfeeding.
- mothers who are taking prescribed cancer chemotherapy agents.
- mothers who are using drugs of abuse, or "street drugs."
- mothers who have **herpes** lesions on a breast (infant may feed from other breast if clear of lesions).

In rare instances of severe **hyperbilirubinemia** (jaundice), breastfeeding may need to be interrupted temporarily for a brief period. These situations may call for the need to supplement with breastmilk substitute or formula. Inadequate weight gain in a breastfed infant may also necessitate supplementation however, with prompt and adequate breastfeeding support, this issue can almost always be resolved without supplementation. (DSHS. The Health Care Provider's Guide to Breastfeeding. 2011)

Appendix C: Sample Breastfeeding Referral Guide

Refer to PC	Refer to IBCLC/TBE		Refer to MD
	Mother	Infant	
• Sore nipples • Bad latch • Proper positioning • Breastfeeding and returning to work/ school • Perceived low milk supply • Weaning • Mild engorgement • Nursing strikes • Tandem nursing • Low risk pump issuance	• Insufficient milk supply • Severe/ prolonged engorgement • Overproduction • History of breast surgery • Taking medication • Multiple gestation • Plugged duct • Cesarean delivery • Mastitis/breast infection • Inverted nipples • Damaged nipples • High risk pump issuance	• Jaundice • Premature • Near term infant • Birth defects • Weight loss >10% • Slow weight gain • Colic/ fussiness • Reflux • Food intolerance	• Inadequate weight gain • Ankyloglossia • Fragmented placenta • Candidiasis • Postpartum depression

Glossary

Affirm – accept or confirm the validity or truth of (a judgment or agreement). Offer (someone) emotional support or encouragement.

Affirmation – a statement asserting the existence or the truth of something. Examples are:

- "Many moms have had that same question."
- "I can see that breastfeeding is important to you."

Amniotic fluid – the fluid that surrounds the baby in-utero.

Anti–parasites – substances found in breastmilk that keep parasites from causing harm.

Alveoli – grape-like clusters that store milk making cells.

Areola – circular, darkened area that frequently enlarges and darkens more in response to hormones during pregnancy, contains smooth muscle and elastic tissue and Montgomery glands.

Baby-led bottle feeding – bottle feeding that allows the infant to take intermittent breaks to catch their breath. This allows the infant to coordinate breathing with the suck-swallow of feeding.

Birth plan – a written list of the mother's preferences to be used as a guide for how she would like her labor and delivery to go. Common requests include a hep lock, intermittent monitoring, and skin to skin after delivery.

Chemical reactions – a reaction happens when two or more molecules work together and something happens.

Cholesterol – only found in breastmilk fat, not formula, and is very important for a baby's growing brain and body.

Closed-ended question – a question that is answered with "yes" or "no" or with a specific piece of information.

- "How many children do you have?"
- "Are you planning to breastfeed?"

Colostrum – the body's first milk, formed around the 12th to 16th week of pregnancy. It is high in antioxidants, antibodies and other anti-infective properties.

Disengagement cues – signs that indicate an infant is in need of a break from interacting with his environment.

Docosahexaenoic acid (DHA) and arachidonic acid (ARA) – important human milk fatty acids that help a baby's brain and eyes develop.

Ducts – roadways that allow milk to travel from the alveoli to the nipple to be released.

DSHS trained breastfeeding educator – a person who has successfully completed both Principles of Lactation Management and Lactation Counseling and Problem Solving courses in the last five years.

Engagement cues – signs that indicate an infant is willing to interact with his environment.

Enzymes – are the living substances (proteins) that act as helpers, helping complex chemical reactions take place in the body. There are enzymes for brain cells, intestinal cells, and your saliva. We need enzymes to live.

Exclusive breastfeeding – feeding breastmilk only with no other fluids (formula or water) or solid foods.

Feedback inhibitor of lactation (FIL) – the whey protein found in human milk that regulates milk production based on the degree of fullness/emptiness of the breast.

Foremilk – low-fat milk at the beginning of each feeding.

Galactosemia – a condition in which the body is unable to use (metabolize) the simple sugar galactose. If an infant with galactosemia is given breastmilk, substances made from galactose build up in the infant's system. These substances damage the liver, brain, kidneys, and eyes.

Gestation – is the period of time between conception and birth during which the fetus grows and develops inside the mother's womb.

Growth factors – help grow or mature the different parts of the baby's body, including the skin, nerves, blood vessels, and intestines.

Health disparities – refer to differences between groups of people. These differences can affect how frequently a disease affects a group, how many people get sick, or how often the disease causes

death. Many different populations are affected by disparities. These include racial and ethnic minorities, residents of rural areas, women, children, the elderly, and persons with disabilities.

Hindmilk – milk toward the end of the feeding that is two to three times higher in fat than foremilk.

Hyperbilirubinemia (jaundice) – a condition where there is a high level of bilirubin in the blood. Bilirubin is a natural by-product of the breakdown of red blood cells. If a high level of bilirubinemia is left untreated.

IBCLC – International Board Certified Lactation Consultant is a health care professional who specializes in the clinical management of breastfeeding and is certified by the International Board of Lactation Consultant Examiners, Inc.

Infant states – six behaviors influenced by an infant's consciousness or awareness. For example, an infant's response to being held depends on the infant's state.

Lactational amenorrhea method (LAM) – a temporary and natural form of birth control.

Lactose – milk sugar that helps a baby's brain develop and is a main carbohydrate in breastmilk.

Late preterm – are born between 34 and 37 weeks' gestation and are not fully mature.

Lipase – enzyme in breastmilk that breaks the fats down into smaller parts and makes them more easily digested and absorbed.

Lobe/lobule – each milk duct branches into a lobe or section of the breast. Groups of alveoli, called lobules are found in each lobe.

Lysozyme – enzyme in breastmilk that kills bacteria. Breastmilk will have more lysozymes if a mother breastfeeds longer.

Milk-ejection reflex – also known as "let-down" in response to oxytocin release, mothers may feel this sensation and describe it at various levels of intensity or not at all.

Montgomery glands – bumps on the areola that become prominent during pregnancy and secrete an oily substance and milk.

Natural killer cells – these are anti-viral ingredients found in breastmilk that block incoming viruses or attach to a virus, making it harmless.

Necrotizing enterocolitis (**NEC**) – A gastrointestinal disease that mostly affects premature infants, NEC involves infection and inflammation that causes destruction of the bowel (intestine) or part of the bowel.

Nipple – structure of the breast that sits in the center of the areola and contains nerve fibers endings, main milk ducts and pores, smooth muscle fibers, and a rich blood supply.

Nursing strike – occurs when a baby, less than 12 months of age, suddenly refuses to breastfeed for a period of time lasting from several feedings to several days.

Oligosaccharide – main carbohydrate milk sugar in breastmilk that keeps the baby's brain and intestines healthy.

Open-ended question – questions that stimulate free thought by asking for a response that cannot be answered with a simple one or two word phrase. Open ended questions are broad and will solicit additional information.

- "Tell me about your last breastfeeding experience."
- "How do you feel about breastfeeding in public?"

Oxytocin – causes contraction of the muscle cells allowing milk to move down the ducts. Also acts on the uterus muscle to cause contraction which aids in the controlling of vaginal bleeding. Responsible for "let–down."

Postpartum – the period just after delivery. Postpartum refers to the mother and postnatal to the baby. From the Latin post, after + partum, birth.

Premature – refers to a baby born before 37 weeks of gestation, counting from the first day of the last menstrual period.

Prolactin – the hormone responsible for causing milk to be produced in the alveoli and also rises in mother's blood levels when infant suckles.

Proxy – somebody authorized to act for another person.

Receptor sites – develop when a mom breastfeeds or removes milk during the first few weeks after she gives birth and works with hormones enabling them to function.

Rooming in – an arrangement in a hospital whereby a newborn infant is kept in a crib at the mother's bedside instead of in a nursery 24 hours a day, except for periods of up to an hour for hospital procedures or if separation is medically indicated.

Staff referral protocol – a list of contacts for staff to use when they have a breastfeeding situation or question that is beyond their own level of expertise.

Tandem nursing – when a mother breastfeeds two or more children, including a mother of multiples (twins, triplets, etc.) or a mother with an older child and a newborn.

Vitamin D – recommended by the American Academy of Pediatrics as a supplement for all infants. Made in the skin when exposed to UV light, also found in the diet. Recommended supplement: 400 IU per day beginning in the first few days of life.

Weaning – a natural occurrence that gradually happens over time when foods or liquids other than breastmilk are slowly introduced to the growing infant, thus replacing breastmilk in the baby's diet. The breasts respond by making less and less milk until they discontinue making milk completely.

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Breastfeeding Promotion and Support Module Answer Key

Part 1 Test Answers

1. Today, more than three out of four women choose to breastfeed.
2. Increased risk of ear infections, diarrhea and asthma in children.

   Increased risk of breast and ovarian cancer in women.

   Increased risk of diabetes in both women and children.

   Increased risk of postpartum depression in women.

   Increased risk of obesity in children.
3. If 90% of U.S. families could breastfeed exclusively for six months, the United States would save a minimum of $13 billion and prevent an excess 911 deaths a year.
4. F
5. A
6. B
7. E
8. C
9. D
10. TRUE
11. Peer counselor support in the clinic

    Breast pumps

    Larger food package for one year

    Peer counselor support outside of the clinic

Part 2 Test Answers

1. FALSE
2. TRUE
3. FALSE
4. TRUE
5. B
6. D
7. C
8. C
9. B
10. A
11. A
12. D
13. C

Part 3 Test Answers

1. TRUE
2. TRUE
3. B

   D

   A

   E

   C
4. Beautiful breastfeeding posters

   A sign letting mothers know they can breastfeed in your clinic

   Workplace policies to support WIC staff who are breastfeeding

   Staff encouragement of the mother's family and friends to participate in breastfeeding education and support services

Part 4 Test Answers

1. D
2. C
3. C
4. A
5 D
6. B
7. E
8. FALSE
9. FALSE
10. FALSE
11. TRUE

Part 5 Test Answers

1. C
2. B
3. B
4. FALSE
5. FALSE
6. TRUE
7. TRUE
8. FALSE
9. FALSE
10. TRUE

Part 6 Test Answers

1. D
2. B
3. B
4. C
5 D
6. B
7. A
8. FALSE
9. FALSE

Part 7 Test Answers

1. D
2. TRUE
3. E
4. Begin pumping no later than six hours after birth.

   Pump every 2 to 3 hours, day and night.

   Get a breast pump from WIC the days she is discharged, if at all possible.
5 C
6. D
7. A
8. B
9. Talking to her employer about pumping before she takes maternity leave

   Talking to friends and co-workers about how they kept breastfeeding after returning to work or school

   Having a trial “work day” before actually returning to work or school

Part 8 Test Answers

1. D
2. C
3. A
4. B
5 A
6. D
7. FALSE
8. FALSE
9. TRUE
10. B
11. C
12. A

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