

texas

WIC

news

July/August 2006

Volume 15, Number 4

*Breastfeeding:*  
**It's Perfectly  
Natural**



Special Supplemental Nutrition Program for Women, Infants, and Children

# Texas WIC – A Leader in Breastfeeding Promotion

The World Breastfeeding Month theme for 2006, *It's Perfectly Natural*, focuses on restoring breastfeeding as the societal infant feeding norm. In fact, statistics show that it's happening in our state. According to the 2004 Centers for Disease Control National Immunization Survey, Texas' all-infant initiation rates are now at 74.5 percent — a 2.5 percent increase from 2003. Our WIC initiation rates are now over 68 percent — an increase of 3.5 percent from last year.

The fact that Texas WIC rates seem to be rising at a faster rate than all-infant rates is a remarkable tribute to our local agency staff. Thank you for all that you do! I'd also like to give kudos to our state agency personnel who often go unrecognized. Much of the credit to the quality of our breastfeeding materials goes to the people behind the scenes — such as the talented folks in our Publishing, Promotion, and Media Services section. This section includes our photographer, graphic designers, videographers, producers, copy editors, and scriptwriters.

To give you an idea of the kind of leader our program is, let me describe a few instances

where our breastfeeding materials received recognition.

After receiving a copy of the new edition of *The Physician's Pocket Guide to Breastfeeding*, one physician contacted the program with this thankful message:

I want to congratulate you on *The Physician's Pocket Guide to Breastfeeding*. It is beautifully done. I've seen physicians reading it who might not have otherwise taken the trouble.

A nurse at Darnell Army Community Hospital in Fort Hood viewed a copy of the DVD, *To Baby With Love: Overcoming Breastfeeding Barriers*. She loved it so much that she convinced her hospital to purchase 3,000 copies so they could give one to every new mom upon discharge.

While listening to The Power, a 24-hour African-American satellite radio talk station, a City of Austin employee heard a woman from Texas call in and mention the great breastfeeding brochures she and her daughter received from WIC, specifically mentioning the *Support Your Daughter* brochure.

Comments like these make me feel honored to represent such a superb program. Keep up the great work, and be proud that you are influencing family decisions to breastfeed. The work you do today will result in healthier generations to come.



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From the Texas WIC Director - Mike Montgomery

# Food Insecurity and Fears Likely to Affect Breastfeeding Rates

by Tracy Erickson, R.D., L.D., I.B.C.L.C.  
WIC Breastfeeding Coordinator



I was visiting a WIC clinic recently when, after sitting in on a great breastfeeding class, I observed a WIC participant approach the peer counselor and ask “If I start out breastfeeding, will I be able to get formula later if I need it?”

This question comes up frequently. How do misconceptions like this get started? Is it a rumor or is it the need to know that their unborn baby will have a guaranteed way to thrive? The pregnant participant who asked this question was expressing food insecurity. She intended to breastfeed, but was not confident that she’d be able to provide breast milk exclusively for as long as her baby needed it.

New parents, especially first-time moms, are a vulnerable group. Not only are they moving into a new phase of life and learning new parenting skills, they are also bombarded with conflicting information and advice, often overwhelming them and filling them with self-doubt. They want to do what is best for their baby, but the idea of breastfeeding can seem intimidating, especially for women with the following barriers:

- unsupportive family and friends,
- lack of role models,
- fear of pain or embarrassment, or
- a job that does not allow them breaks during the work day.

It can seem like an outright daunting task if they fear they

## Food Insecurity

Food insecurity exists when people either do not have, or have fears that they might not have adequate physical, social or economic access to food.

Physical manifestations of food insecurity can include fatigue and/or illness related to insufficient food, inability to concentrate at school and low work capacity either at home or at work. Psychological manifestations include stress in the household ranging from decreased interest in food and nourishment (e.g., no more pleasure, no more desire to do the cooking) to the fear of losing custody of a child or children. (Journal of Nutrition. 1999. 129:525-528.)

According to the U.S. Department of Agriculture, the prevalence of food insecurity was 11.9 percent in 2004, up from 11.2 percent in 2003. (Household Food Security in the United States. 2004. Economic Research Report No. ERR11, USDA)

“...just because you start out breastfeeding, doesn't mean you can't get formula from WIC if you need it.”



won't be able to get formula if or when they need it.

Affirming their feelings, addressing their barriers, and acknowledging their fears are essential steps in Best Start's 3-Step Counseling Strategy. They are also the steps in Motivational Interviewing, and an integral part of Peer Counselor training. These must be the first steps to enable a person to absorb new information, thoughts, or ideas, or to move on to a new stage of change.

The conception that a WIC participant who starts out breastfeeding will not be able to get formula later is prevalent. But how do we inform moms of the availability of free formula without demeaning the mother's confidence in her ability to breastfeed, without making it seem as if we're promoting the use of formula, or without giving the perception that formula is equivalent to a mother's own milk? The answer — very carefully!

When counseling or teaching group classes to pregnant moms, it may be a good idea to inform participants that, if they start out breastfeeding, they can get formula if they need it. Here are some ideas on how to convey that message:

*The American Academy of Pediatrics recommends breastfeeding for a year or longer however, many moms must return to work or school in the first few weeks postpartum. A breast pump or formula is often needed to supplement breastfeeding. WIC can help you with these things. You'll both still receive benefits from breastfeeding, even if you breastfeed only when you and your baby are together.*

*Babies need their mother's own milk, especially in the earliest days postpartum. That's why it's important to start out breastfeeding. WIC will help you with breastfeeding and will also help you with formula if you need it.*

*Breastfeeding is the healthiest thing you can do for you and your baby but, just because you start out breastfeeding, doesn't mean you can't get formula from WIC if you need it. WIC just wants you to breastfeed your baby for as long as possible. Any amount of breastfeeding is better than none at all.*

If you don't feel you have time to add anything to your counseling sessions or group classes, consider adding a similar statement to a bulletin board, a nutrition newsletter, or by posting a small sign in your classroom or waiting room. By passing this information along, you may be calming an unspoken fear of a pregnant participant. By dispelling this fear, you will have started a relationship of trust between you and the participant — allowing the participant to learn, to move on to a new stage of change, and possibly, to consider breastfeeding.



# Survey Reveals 70% of WIC Mothers Breastfed in 2004

by Tracy Erickson, R.D., L.D., I.B.C.L.C.  
WIC Breastfeeding Coordinator



**WIC** clinics administered infant feeding surveys to participants in the fall of 2004 to determine:

- the length of time participants breastfed;
- when participants started supplementing with formula or other foods; and
- the reasons participants discontinued breastfeeding.

If the mother was enrolled in WIC during her pregnancy she was given a survey to complete during the child's one-year-old certification. A full report of the survey has been posted on the WIC Directors' Web site. This report will help local agencies target their 2007 breastfeeding promotion, support, and educational needs as the

survey results indicated. The infant feeding survey will continue to be administered and results will be provided with the annual Nutrition Education and Breastfeeding Plans. The following is a condensed report of the findings from 2,224 completed surveys.

## Breastfeeding Patterns

Approximately 70 percent of respondents initiated breastfeeding. Sixteen percent breastfed for less than one month, 18 percent between one and three months, 13 percent between four and six months, 8 percent for between seven and 11 months, and 7 percent for 12 months or more. Nine percent of mothers were still breastfeeding at the time of the survey and the child's one-year-old

certification. When combining the data for women who breastfed for 12 months or more with women who were still breastfeeding their child at the child's one-year-old certification, about 15 percent of mothers breastfed their infants for 12 months or more. Thirty percent of mothers reported that they never breastfeed their infants.

Breastfeeding initiation patterns showed race/ethnic differences. Compared with White Anglos (64%) and African Americans (55%), more Hispanic (73%) and Asian (88%) mothers breastfed. The impact of the father's ethnicity on breastfeeding was similar to that of mother's ethnicity. Breastfeeding duration patterns also showed similar race/ethnic differences. Not only were Hispanics and

Asians more likely to breastfeed but these mothers were more likely to have breastfed longer.

The age of the respondent was also associated with the duration of breastfeeding. The youngest group of mothers (less than 25 years old) was least likely to breastfeed their infants. More than one-third (35%) of all respondents 24 years or less did not breastfeed their infants, in contrast to 26 percent in the 25-34 and the 35 or above age groups. Youngest mothers were also more likely to stop breastfeeding during the first six months. The proportion that breastfed for more than six months increased with increasing maternal age.

## Introduction of Formula or Other Foods

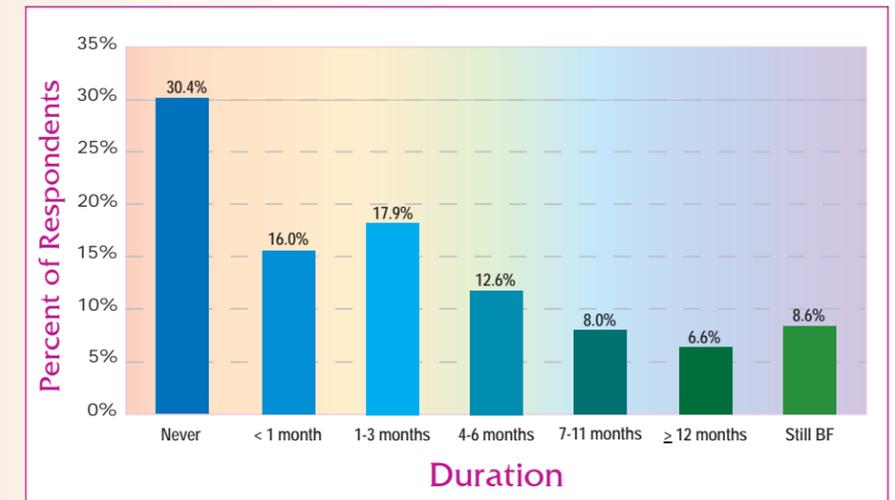
Twenty-eight percent of respondents who initially breastfed started giving formula or other foods to their infants at less than one week of age, 11 percent started between 1 and 3 weeks, 16 percent started when the baby was 1-3 months old, 39 percent started them at 4-6 months old, and 1 percent of respondents were exclusively (no formula or other foods) breastfeeding their infants at the time of the survey.

## Formula/Other Foods versus Breastfeeding

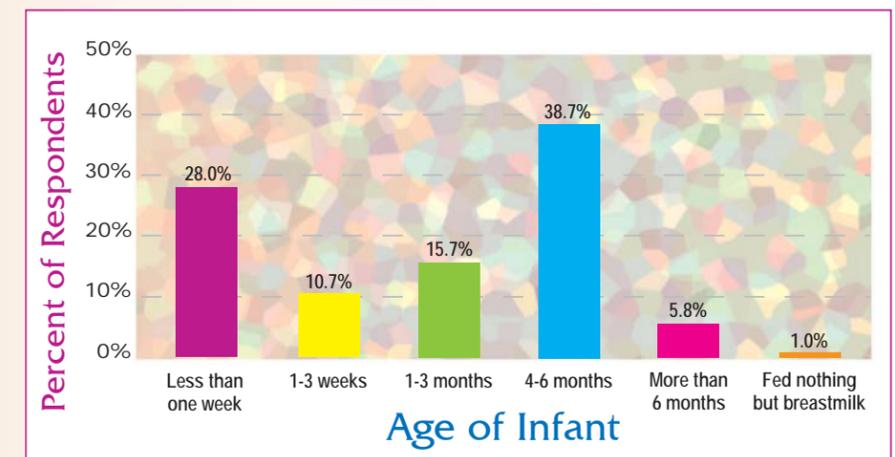
Analysis of the relationship between the age that breastfed infants were first fed formula or other foods and length of breastfeeding is shown in the table (right). In general, mothers who delayed introduction of formula or other foods to 4-6 months or beyond breastfed for a longer duration.

*(continued on page 8)*

Duration of Breastfeeding (2,172 respondents)



Age When Breastfed Infant Was First Fed Formula or Other Foods (1,576 respondents)



Breastfed Infants Were First Fed Formula/Other Foods Versus Length of Breastfeeding (1,449 respondents)

## First Fed Formula or Other Foods

Length of Breastfeeding	< 1 month	1-3 months	4-6 months	> 6 months
Less one month BF	34.1%	15.7%	13.3%	16.9%
1 - 3 months BF	23.8%	51.3%	18.8%	24.7%
4 - 6 months BF	15.9%	10.9%	24.7%	11.7%
More than 6 months BF	15.6%	13.0%	28.9%	31.2%
Still breastfeeding	10.7%	9.1%	14.2%	15.6%

Survey  
(Continued from page 7)

### Discontinuing Breastfeeding

Respondents were asked why they quit breastfeeding before the infant was 12 months old. Their primary responses are shown below.

In addition, 16 percent of the respondents provided additional open-ended reasons for discontinuing breastfeeding. These reasons varied from “baby did not or could not breastfeed” to “mother pregnant again.”

### Summary

- About 70 percent of infants were breastfed for some duration. African Americans were least likely to breastfeed their infants, followed by White Anglos. Younger mothers were also less likely to breastfeed their infants.
- In general, mothers who delayed introduction of formula or other foods to 4-6 months or beyond breastfed for a longer duration.
- The two most commonly reported reasons for discontinued breastfeeding included not being able to produce enough milk and infants’ lack of satisfaction with breast milk alone; both involved concerns about milk supply. Subsequent, yet still highly reported reasons included baby’s

difficulty with nursing, breast or nipple pain, followed by return to work or school.

### Recommendations

#### ✦ Address Food Security Fears

Whereas the survey findings indicate about 70 percent of WIC enrolled mothers initiated breastfeeding, the Texas WIN system born-to-WIC initiation rate at the time was about 63 percent. While the survey sample size represented only a fraction of one-year-olds who were enrolled in WIC in the fall of 2004\*, the discrepancy between initiation rates may indicate that some mothers of newborns are reluctant to tell WIC staff that they are breastfeeding for fear that they might not receive infant formula. These mothers may be more comfortable revealing their breastfeeding efforts once the need for formula no longer exists. In fact, one mother of an infant interviewed during the 2003 African American Breastfeeding Campaign pilot project indicated to researchers that she did just that. Born-to-WIC breastfeeding initiation rates may be more accurately reported when women are made aware that if they start out by breastfeeding, they will not be

denied formula if or when they need it.

#### ✦ Expand Peer Counselor Program to Provide Early Support

WIC clinics need to address the top reasons women quit breastfeeding and continue to expand and enhance their peer counselor programs. Early support will help breastfeeding mother and baby dyads avoid pain and difficulty with breastfeeding and in turn, will help mothers establish and maintain a good milk supply. The addition of African-American and teen peer counselors would help clinics target participants who are less likely to breastfeed as would African-American and teen specific classes and support group meetings.

#### ✦ Teach the Importance of Avoiding Infant Supplementation during Pregnancy

Survey results regarding infant supplementation indicate that a large percent of moms start supplementing their infants in the first few days postpartum, which is often before they come to WIC for their first postpartum appointment. Education on the importance of avoiding supplementation to protect a mother’s milk supply and reducing infant allergy risk should be taught during pregnancy. It is well documented that avoiding supplements in the early postpartum period is also associated with increased duration of breastfeeding.

\* Born-to-WIC breastfeeding initiation rate was based on all WIC infants with risk code 701 (infant up to 6 months old of WIC mother), whereas the survey was based on a very small portion (about two-thousand) of WIC mothers with a different criterion — one-year-old child certification.

### Reasons for Discontinuing Breastfeeding (1,209 respondents)

Reason	Percent
I thought I was not producing enough milk	32.3
Breast milk alone did not satisfy my baby	29.5
My baby had difficulty nursing	22.4
My nipples or breasts hurt	21.7
I went back to work or school	20.9
I felt it was the right time to stop breastfeeding	19.9
I became sick or was put on medicine	9.5
I had too many household duties	9.4
My family or friends encouraged me to give the baby formula	8.4
I thought my baby was not gaining enough weight	8.4
My baby was biting	8.4

# REACHING FOR THE NATIONAL GOAL FOR BREASTFEEDING INITIATION

By Tracy Erickson, R.D., L.D., I.B.C.L.C.  
WIC Breastfeeding Coordinator



Studies repeatedly show that WIC is one of the few places where pregnant women receive breastfeeding education — and it shows. Texas WIC breastfeeding initiation rates have climbed steadily from 31 percent in 1990 to 68 percent in early 2006. Every year, more and more local agencies are nearing, reaching, or exceeding the Healthy People 2010 goal of 75 percent of women breastfeeding in the early postpartum period.

Congratulations to the local agencies meeting or exceeding 75 percent initiation (Born-to-WIC).

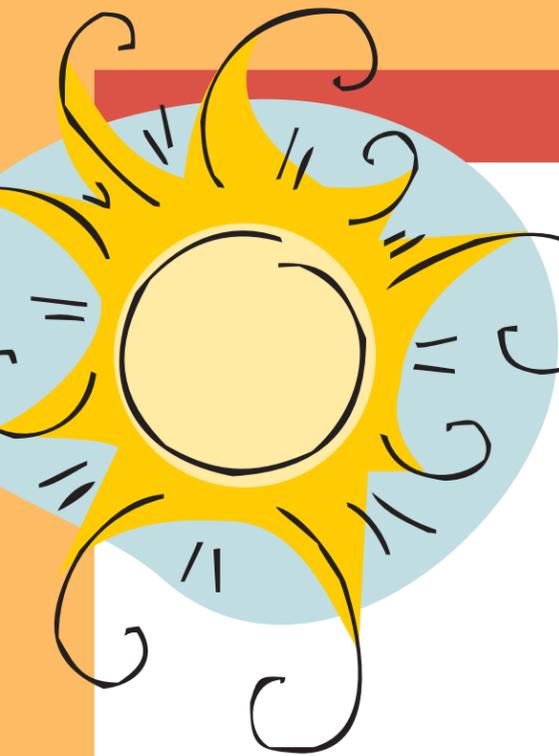
LA 01	City of Austin	84.9%
LA 12	Hidalgo County Health Department	85.6%
LA 17	UT Health Science Center	76.6%
LA 18	Community Council of Bee County	80.2%
LA 26	Houston Health and Services Department	78.0%
LA 45	Cross Timbers Health Clinic	75.9%
LA 48	Harris County Public Health & Environmental Services	75.2%
LA 90	Los Barrios Unidos Community Clinic	84.4%
LA 109	Saint Mark’s Medical Center	80.0%

Ten local agencies are very close to meeting the goal — with BTW rates between 70 and 75 percent. We have 34 local agencies with initiation rates between 60 and 70 percent, 14 between 50 and 60 percent, and only 12 local agencies with rates in the 40s.

We’ve come a long way — but we’re still trying to reach our goal! *Keep on doing what you’re doing!*



## Beat the Texas Heat



**A**lways take extra precaution when being physically active outside during hot days. Follow these guidelines to avoid dehydration, which could result in a serious health emergency.



HYDRATION	OTHER TIPS
<p>Drink plenty of water before, during and after activity. Follow the guidelines below provided by the American College of Sports Medicine and the National Trainers' Association.</p> <p><b>2 hours before exercise</b> Drink 16 oz of water</p> <p><b>15-20 minutes before exercise</b> Drink 8 -12 oz of water</p> <p><b>Every 1 - 15 minutes of exercise</b> Drink 4 -10 oz of water</p> <p><b>After exercise</b> Drink 16 oz of water</p>	<ul style="list-style-type: none"> <li>• Reduce the difficulty or 'intensity' of your outdoor activity during hot days.</li> <li>• Postpone or move activity to the indoors if the heat stress index (high temperatures and high humidity) is over 90 degrees.</li> <li>• Wear light weight, loose fitting, light colored material that absorbs water such as cotton.</li> <li>• Always wear sunscreen.</li> <li>• Finally, use common sense and alter your activity plans based on the heat.</li> </ul>

### MONTHLY IDL WELLNESS BREAKS!

#### NEED TO GET RE-ENERGIZED ONCE A MONTH?

**J**oin The University of Texas Wellness Team and tune in the **LAST MONDAY** of each month at **12:15 P.M.** for a 15-20 minute wellness break on the WIC IDL system. You will learn helpful information about **HEALTHY EATING, PHYSICAL ACTIVITY** and **STRESS MANAGEMENT.**

# WIC Wellness Works

## Eating Fish for You and Your Baby's Health

**F**ish contain healthy fat called omega-3 fatty acids, which helps your heartbeat stay normal. Omega-3s also reduce swelling in the body, help fine-tune vision, and can lower certain blood fats that are harmful to your heart. If you are pregnant, breastfeeding, or may become pregnant within 1 year, eat plenty of foods rich in omega-3 fats. Omega-3s pass into breastmilk (it is thought that these fats are responsible for the slightly higher IQ seen in breastfed babies versus formula-fed babies).

#### To get your omega-3s:

- Eat fish twice a week
- Select a fatty fish like salmon
- Eat walnuts, flax seed and use canola oil

#### Caution

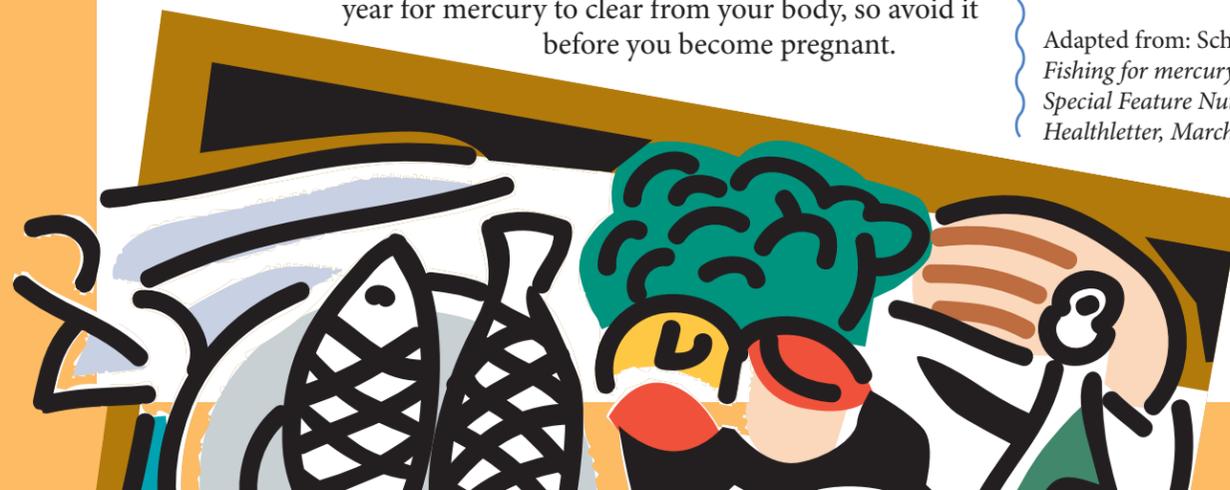
Fish may be contaminated with chemicals such as mercury. Mercury can damage the brain and nervous system of small children and a developing fetus. Polychlorinated biphenyl (PCB) and dioxin, cancer-causing industrial chemicals that may be risky to your baby, have been found in high amounts in some farm-raised fish. It can take up to one year for mercury to clear from your body, so avoid it before you become pregnant.

#### SEAFOOD GUIDELINES FOR WOMEN WHO ARE PREGNANT, BREASTFEEDING, OR WHO MAY BECOME PREGNANT IN THE NEXT YEAR

- **AVOID** swordfish, shark, tilefish, king mackerel, fresh tuna.
- **AVOID** farmed fish from Scotland and the Faroe Islands.
- **SELECT FARMED FISH FROM** Chile and Washington State.
- **EAT A VARIETY OF SEAFOOD.** Include wild (instead of farm-raised) and "organic" salmon if you can find it, as well as canned salmon.
- **EAT LESS THAN 12 OUNCES/WEEK** of lower mercury fish: mid-Atlantic blue crab, farmed catfish, croaker (not white), fish sticks, flounder, haddock, farmed or wild salmon, shrimp, farmed trout.
- **IF YOU EAT NO OTHER SEAFOOD IN 1 WEEK, YOU CAN HAVE:**
  - o 1 - 5 ounce can white albacore tuna or
  - o 2 - 10 ounce cans, drained light canned tuna.
- **REDUCE HARMFUL CONTAMINANTS FOUND IN FISH:**
  - o Score the flesh (make small cuts in it).
  - o Grill or broil the fish so that the juices drip off.
  - o Cook the fish until it reaches an internal temperature of 175 degrees F.
  - o Remove the skin before eating.
- **IF YOU EAT LOCALLY CAUGHT FISH,** check for mercury-contaminated water at <http://www.tdh.state.tx.us/bfids/ssd/fiscount.html>.
- **CONSULT YOUR DOCTOR FIRST.** Fish oil supplements do not appear to contain significant amounts of mercury, PCBs, or dioxin. However, consult your doctor before taking any type of supplement.

For more information on mercury limits and fish, visit: <http://epa.gov/waterscience/fishadvice/advice.html> and <http://www.cfsan.fda.gov/seafood1.html>.

Adapted from: Schardt, David. 2003. *Fishing for mercury: who's at risk?* Special Feature Nutrition Action Healthletter, March.





## TOMATO-ORANGE SALMON

Serves: 4

### Ingredients:

- 4 6-ounce salmon fillets
- 3 tablespoons orange juice (from mandarin oranges below)
- 1 teaspoon garlic paste
- 1 tablespoon olive oil
- dash of Tabasco® sauce
- juice of 1 lemon

### Topping:

- 1 16-ounce can no-added salt diced tomatoes, drained
- 4 scallions, chopped
- ¼ teaspoon cayenne
- 2 tablespoons lemon juice
- ½ teaspoon ground cumin
- ½ teaspoon ground coriander
- 1 10-ounce can mandarin oranges canned in its own juice

Drain mandarin oranges and reserve juice. Rinse the fish and set aside. Combine the orange juice, juice of 1 lemon, garlic, olive oil, and Tabasco® in a shallow bowl. Add the fish to the bowl, and spoon the marinade over it. Set aside. To make topping, combine all ingredients in a bowl, and let sit for 10 to 15 minutes to let the flavors blend. Broil or grill the fish for about 10 minutes, basting with the marinade several times while cooking. When the fish flakes easily with a fork but is still moist, serve immediately, topped with a generous amount of the topping.

*Adapted from Moosewood Restaurant Cooks at Home, 1994*

• Calories: 378 • Total Fat: 16 grams • Saturated Fat: 2.4 grams  
 • Sodium: 133 mg • Carbohydrates: 15 grams • Fiber: 2 grams  
 • Protein: 41 grams • Diabetic Exchanges: 1 fruit, 6 lean meat  
 • Number of 5 A Day servings: 1

Source: California Table Grape Commission



## WIC Wellness Works Wants You!

WWW is a worksite wellness program developed specifically for Texas WIC staff. The program is open to all local agencies. You provide WIC staff who are excited about worksite wellness; we provide training, materials, and technical assistance. For information or to sign up for training, contact Gina Akin at [gakin@mail.utexas.edu](mailto:gakin@mail.utexas.edu) or Shellie Shores at [shellie.shores@dshs.state.tx.us](mailto:shellie.shores@dshs.state.tx.us).



## Outreach Health Services: A Giant Leap Toward Company Wellness

When Jeff Humber, Director of Outreach Health Services (OHS), heard about the success of the 2004-2005 WIC Wellness Works pilot program in eight of their clinics, he quickly advocated to expand the wellness program to include all WIC clinics in 2006. WIC Project 76 includes approximately 146 staff members, who will soon get moving with WIC Wellness Works. According to Linda DeFrank, assistant director of OHS, "It is truly amazing to have witnessed the evolution of WIC Wellness Works from a select pilot group in a few clinics to a complete program encompassing all of Texas WIC."

Jeff and Linda plan to expand the program and implement a wellness program for all divisions of Outreach Health Services! Linda says, "The information and helpful tips from the UT Wellness Team and State WIC Office set the stage for success in achieving individual wellness goals. I have seen staff improve their self-esteem, attitude, energy level as well as experience weight loss and healthier eating habits. They've made it fun by



forming their own team- 'Steppin' Stars,' wearing special T-shirts, and creating their own cheer."

The OHS WIC staff continues to receive an overwhelming amount of support from their clinic coordinators and each other. The WIC staff uses a buddy system to walk during lunch; they have replaced donuts and soft drinks with fresh fruit and water, and have increased their daily consumption of vegetables.

Outreach Health Services truly has made a commitment to wellness in the workplace and lifelong wellness. Whether you

look at it from the top down or from the bottom up, OHS is empowering others to get excited about their own wellness. As a result, the WIC staff can better relate to the WIC clients they serve. Linda has also noticed positive changes in the WIC staff's public persona since the implementation of WIC Wellness Works. "Their example has motivated family and friends to make changes. Our WIC staff have taken this program and made it their own."



## breastfeeding — it's perfectly natural

by Amanda Hovis, M.P.H.  
Nutrition Education Consultant

The 2006 Texas World Breastfeeding Month theme, *It's Perfectly Natural*, focuses on making breastfeeding a part of everyday life, increasing public support, and accepting breastfeeding as the infant feeding norm.

Many new moms feel uncomfortable breastfeeding in public, and for good reason. According to a recent survey, 27 percent of U.S. adults said, "It is embarrassing for mothers to breastfeed in front of others." To make breastfeeding publicly acceptable, WIC needs to promote breastfeeding as a normal thing to do when an infant is hungry. Educating businesses on the importance of breastfeeding for

infant health and the Texas law regarding a women's right to breastfeed, is an integral part of the campaign.

This year's World Breastfeeding Month poster includes a photograph of a woman breastfeeding discreetly in public. Other materials available include a "Breastfeeding Welcome Here" decal and a handout, geared toward businesses, government offices, doctor's offices, and other public locations. The handout emphasizes the importance of breastfeeding for infant health, the law regarding a women's right to breastfeed and information on using the decal.

By distributing the decal to local area businesses WIC will increase

the number of places women know they can go and breastfeed their infant, raise public awareness about breastfeeding, and garner support for breastfeeding moms.

A mother's decision about whether to breastfeed and when to quit breastfeeding is strongly influenced by the people with whom she comes into contact. Support from family and friends, employers, healthcare providers, and breastfeeding peer counselors have been shown to increase breastfeeding initiation and duration rates. Educating area businesses, restaurants, and doctors' offices on the benefits of encouraging breastfeeding will likely increase the number of women in Texas who will choose to breastfeed.

## Test Your Nutrition I.Q.

by Eaton Wright, B.S., NUT  
Nutrition Expert

Eaton Wright here and it's that time again. August is World Breastfeeding Month and that means it's time to Test Your Breastfeeding I.Q. As I have mentioned 1001 times before, breastfeeding is ABSOLUTELY the best food for infants. PERIOD! No matter what any formula manufacturer says, the fact is formula does not even come close to breastmilk. Not only does breastmilk have nutrients that the "latest-greatest" infant formulas do not have, the act of breastfeeding provides physical and emotional closeness that promotes bonding.

Now on with the quiz.

### Quiz

- How long does the American Academy of Pediatrics recommend women breastfeed?
  - 31,536,000 seconds
  - 525,600 minutes
  - 8,760 hours
  - 365 days
  - 12 months
  - 1 year
  - All of the above
- True or False? Colostrum is an ancient building located in Rome, Italy.
- How long can expressed breastmilk be refrigerated?
  - 1 hour
  - 5 days
  - 3 months
  - 6 months
- True or False? A mother is entitled to breastfeed her baby in any Texas location in which the mother is authorized to be.

### Answers

- The answer is g. From the American Academy of Pediatrics: "Human milk is the preferred feeding for all infants, including premature and sick newborns. It is recommended that breast-feeding continue for at least the first 12 months and thereafter for as long as mutually desired." Or 365 days, or 8,760 hours, or 525,600 minutes, or 31,536,000 seconds, whichever comes first.
- False. The Colosseum is an ancient amphitheatre located in Rome, Italy. The name "Colosseum" was adopted because the immense oval stadium was situated next to a colossal statue of Nero. The original name of this ancient Roman sports arena, the largest arena of its kind, is the Amphitheatrum Flavium.

Colostrum is the milk produced by the breasts in the first three to four days of breastfeeding. It is low in fat and high in carbohydrates, protein, and antibodies that help to keep the infant healthy. Colostrum provides perfect nutrition for the infant and large amounts of living cells that defend against many harmful agents. The concentration of immune factors is much higher in colostrum than in mature milk. Colostrum also contains high concentrations of leukocytes, protective white cells that can destroy disease-causing bacteria and viruses. Colostrum actually works as a natural and 100 percent safe vaccine. It contains large quantities of an antibody called secretory immunoglobulin A (IgA), which protect the infant in the places most likely to come under attack from germs, namely the mucous membranes in the throat, lungs, and intestines.

- The answer is b. Breastmilk can be stored in a refrigerator (less than 40°F) for up to five days. Breastmilk may be stored in a freezer for up to three months (less than 32°F), or in a deep freezer for six months or longer (less than 0°F).

Thaw breastmilk by running warm water over the bottle or bag. NEVER boil or microwave it. Gently rotate bottle to mix milk before feeding it to your infant. Breastmilk will naturally separate into layers when stored.

- Yep, it's the law. Texas Health & Safety Code § 165.002. Right to Breastfeed — makes it so.

As always, breastfeed your baby for a BIG baby brain.

About the author: Eaton Wright is a certified NUT based in Austin, Texas.

# two new nutritional products

—now available to WIC participants

by Roxanne Robison  
CSHCN Nutrition Consultant



Two new non-contract nutritional products, Bright Beginnings Soy Drink (PBM Products) and Resource Just for Kids 1.5 (Novartis), are now available for children with medical needs who are enrolled in the Texas WIC program. Bright Beginnings Soy Drink is the first soy-based 30 calorie per ounce product similar to cow's milk-based Pediasure, Kindercal, Resource Just for Kids and other nutritionally complete products designed to meet the nutritional needs of children ages one to ten years. Resource Just for Kids 1.5, the first product of its kind, contains 1.5 calories per cc or 45 calories per ounce. This article highlights two children who benefited from each of these products.

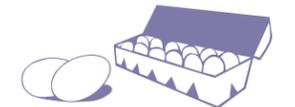
R.C., almost 3 years old, was born with cerebral palsy. Although he is unable to walk or crawl, R.C. expends a lot of calories due to his extremely high muscle tone. R.C. was on a soy infant formula for a milk allergy his first year. When he turned one year, he was changed to soymilk, which his mother bought from the grocery store. Although he tolerated this milk well, it is not nutritionally complete and it contains fewer calories than the soy formula he had been taking as an infant. When R.C. started attending daycare, he began to lose weight. R.C. can eat well orally if he is given ample time and assistance. However, it takes more time to feed him than was practical at daycare, so he would mainly drink soymilk because he could do this more efficiently. Soymilk typically provides about 15 calories per ounce, the same as 2% milk. With the help of

the Early Childhood Intervention (ECI) dietitian, a diet concentrated in calories and protein was prescribed to maximize nutritional intake. R.C. began maintaining his weight, but not gaining. When Bright Beginnings Soy Drink came onto the market, it was obtained for R.C. through the WIC program. After one month, R.C. had gained 1½ lbs. — the most he had gained in several months combined. Now his mother feels assured that he is receiving adequate nutrition at daycare despite R.C.'s inability to eat much food during lunch and snack times. His mother can take time to feed R.C. solid foods in the evening and on weekends and she also gives the soy supplement in lieu of soymilk at home. Using the new soy supplement may have helped R.C. avoid surgical placement of a feeding tube.

Resource Just for Kids 1.5 was designed for children with exceptionally high-energy needs, children in need of fluid restriction or children unable to consume an adequate diet due to oral motor impairment or fatigue with eating. In the case of R.R., all of these conditions with the exception of oral motor impairment were present. R.R. was born at 23 weeks gestation weighing 1 lb. 3 oz. He developed bronchopulmonary dysplasia, a complication caused by oxygen administration and lung immaturity. Unable to take all of

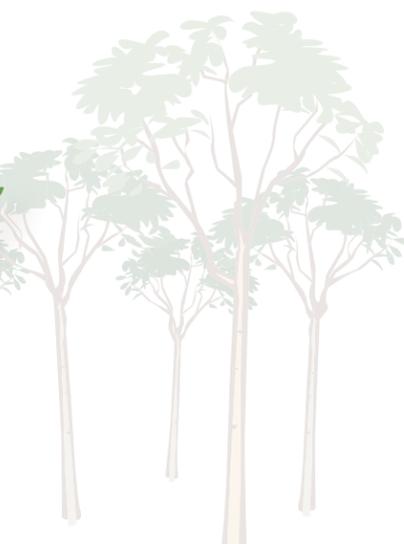
his feedings orally, due to early fatigue, R.R. was sent home on nasogastric tube feedings. He also continued to require supplemental oxygen. A number of medical setbacks prevented R.R. from weaning from tube feedings. By one year of age, he was switched from a formula, specifically designed for premature infants, to Pediasure. His parents did not want a surgically placed feeding tube, so nasogastric feedings continued. Later in his first year, R.R. began pulling the feeding tube out of his nose. Replacing the feeding tube became very unpleasant for his parents because R.R. would physically resist. Eventually, his parents stopped trying to place the feeding tube and R.R. was unable to meet his nutritional needs on all oral feedings. Resource Just for Kids 1.5 was then tried in place of Pediasure. Since all of his nutritional needs could be met in a smaller volume, this high calorie product allowed R.R. to feed orally without having the nasogastric feeding tube inserted. R.R. started to gain weight, helping his lungs to improve which allowed him to be weaned from oxygen.

Both Bright Beginnings Soy Drink and Resource Just for Kids 1.5 are level IV products, requiring state agency review and approval at this time.



“After one month, R.C. had gained 1½ lbs. — the most he had gained in several months combined.”

# Meaningful Relationships Grow from Breastfeeding Counseling



*This article first appeared in the Texas WIC News in June 1997. It has been updated to include recent changes.*

by Jacqueline Boyden  
Breastfeeding Peer Counselor  
Texas WIC Project 30

I am a breastfeeding peer counselor in the WIC program of the Port Arthur City Health Department. I've successfully breastfed all five of my children, three girls and two boys.

I have discovered that being a peer counselor means teaching mothers and mothers-to-be more than just the mechanics of breastfeeding. It means helping other women to see breastfeeding as a meaningful relationship, not just as a means to feed their babies. By teaching women about breastfeeding, we help them to learn more about themselves as mothers. And because of what they learn about mothering through breastfeeding, they learn to respond more positively to their children's needs and to become better parents.



Top (from left): Jamie (12), Ashley (14), Alijah (6), Jacqueline, Godia (3), and Joshua (9). Above and opposite: Jacqueline enjoys an afternoon in the park with her five beautiful children.

to make educated choices for themselves that affect the lives of their children. I'm grateful to be thanked by mothers I've helped, and I am grateful to my co-workers for believing in me and trusting me to be able to help those wanting to breastfeed their babies.

### Mothers need more information

Breastfeeding, I feel, is most often not considered by mothers because of misinformation from both professionals and family members about breastmilk.

Good information is available through several organizations. I am tremendously impressed with the support of organizations such as La Leche League, MediaWatch, and the Texas WIC Peer Counselor Program.

I could go on and on about the wonders of breastfeeding, but I'll end by just saying that I'm so proud to be a breastfeeding peer counselor.

*Boyden, whose five children have all been breastfed WIC babies, has been a breastfeeding peer counselor in Port Arthur for the past nine years. During this time she served as a milk donor for the milk bank in Austin donating 100 ounces of her breastmilk.*

### Knowledge empowers women

This program makes a difference in the lives of the women who are counseled as well as in the life of the counselor, because it empowers women to help each other. Some of the best experiences I have had in the clinic involve developing friendships that go beyond the scope of breastfeeding.

As peer counselors, we help foster self-esteem by helping women have confidence in their ability to nurture their babies by breastfeeding. The Peer Counselor Program provides one way by which women can learn to be independent.

We accomplish this by empowering women with the knowledge



by Shirley Ellis, M.S., R.D.  
Clinical Services Coordinator

## The Importance Of Feeding An Infant On Demand

Breastmilk provides optimal nutrition for infants. Current feeding recommendations for healthy term infants include receiving only breastmilk for the first 6 months of life and feeding “on demand” or according to the infant’s appetite. Since each infant would be eating based on appetite, feeding patterns could vary greatly from infant to infant.

Research has been conducted to examine how often, what time of day, and how long infants who feed



“Some infants breastfed within one hour of their last feeding; others waited a longer period of time...”



on demand breastfeed, and the effect these factors have on infant growth. These studies support the ability of infants to meet their individualized needs when allowed to feed on demand.

A recent study published in Pediatrics examined variations in the volume of milk consumed from each breast at each feeding, the degree of fullness of each breast before and after each feeding, and the fat content of the milk consumed from each breast throughout the day and night. This study validated the importance of infants feeding on demand.

The study included 71 mothers of healthy term infants from one to six months of age who were exclusively breastfeeding on demand. The mothers weighed their infants before and after feeding from each breast. In addition, milk samples were collected by hand expression immediately before and after each feeding.

The breastfeeding behavior of infants who were exclusively breastfed ranged from a few large breastfeedings to more frequent small feedings during a 24-hour period. Some infants breastfed within one hour of their last feeding; others waited a longer period of time between breastfeedings. The infants breastfed with the same frequency throughout the morning, afternoon and evening but tended to breastfeed less often at night.

Results showed that with 53 percent of the feedings, one breast was enough to satisfy the infant for at least one hour. This supports the advice of Riordan and Auerbach that after breastfeeding has been established, it may not be necessary to use both breasts at each feeding to satisfy an infant. This finding also reflects the National Health and Medical Research Council recommendation that both breasts be offered at each feeding, although the infant may not show interest in feeding on both breasts.

The amount of milk produced during a 24-hour interval varies widely. This variation can be accounted for by the difference in the growth rates of the infants.

The fat content of the milk, which varied throughout a 24-hour interval, was reflective of the amount of milk removed during the day and evening and the amount of fullness in the morning and evening. The fat content of the foremilk was not always low because the breast was not always full at the beginning of each breastfeeding. The fat intake was not related to the frequency of breastfeeding, therefore infants who take frequent small breastfeedings could have the same daily fat intake as infants who take

less frequent large breastfeedings. The study recognized the wide range of breastfeeding behaviors for some to more frequent smaller amounts for others. The study also acknowledged that some infants might need to feed at night if they have a relatively small stomach capacity and/or a slow gastric emptying time. The study concluded that breasts do not need to be drained at every feeding to maintain adequate milk production.

*WIC Bottom Line:* WIC staff should continue to teach mothers and family members how to watch their infants for hunger cues and feed according to the infants schedule not according to a feeding schedule set by the caregiver. A mother should be taught to let her baby nurse on one side until he or she spontaneously releases the breast or falls asleep. The mother should offer the other breast even though the baby may or may not take it. Parents need to be empowered to trust the healthy term infant to know when, how much and how often they should be breastfeeding.

Sources:  
Kent, J.C., L.R. Mitoulas, M.D. Cregan, D.T. Ramsey, D.A. Doherty, and P.E. Hartmann. 2006. Volume and Frequency of Breastfeeding and Fat Content of Breast Milk Throughout the Day. Pediatrics 117(3):e387-95.

Riordan, J. and KG. Auerbach. 1993. Breastfeeding and Human Lactation. Boston, MA: Jones and Bartlett Publishing

## Reduction of the Severity of Neural Tube Defects with Folic Acid

Neural tube defects, one of the most common birth defects, occur in approximately one in 1,000 live births in the United

States. A neural tube defect occurs when the neural tube does not close completely. The neural tube is what will eventually become the spinal cord and the brain. Because the neural tube closes within the first 30 days of conception, neural tube defects often develop before most women know they are even pregnant.

Spina bifida and anencephaly are two common types of neural tube defects. Each year, approximately 3,000 pregnancies in the United States are affected by either spina bifida or anencephaly. Spina bifida occurs when the spine and backbones do not close completely. Anencephaly occurs when the brain and skull bones do not form correctly.

Researchers have found that 50-70 percent of neural tube defects can be prevented when women supplement their diet with the B vitamin, folic acid. To reduce the risk of neural tube defects, the U.S. Public Health Service and the Institute of Medicine recommend that women of childbearing age who are capable of becoming pregnant consume 400 micrograms of folic acid daily. Furthermore, it is recommended that women who have given birth to an infant born with a neural tube defect should increase their intake of folic acid to 4000 micrograms at least one month before conception and continue through the first trimester.

In 1998, the U.S. Food and Drug Administration began requiring the addition of folic acid to enriched breads, cereals, flours, pastas, rice and other grain products in order to ensure adequate consumption of folic acid in the general population’s diet.

Since the folic acid fortification of U.S. grain products began, *(Continued on page 18)*



*“...we need to continue to encourage all of our participants who are of childbearing age to consume foods rich in folic acid...”*

**Folic Acid**  
*(Continued from page 17)*

there has been a decrease in the prevalence of neural tube defects. However, it is not known whether folic acid plays a role in reducing the severity of occurring neural tube defects.

A recent study published in Pediatrics looked at whether survival among infants born with spina bifida and encephalocele has improved since the beginning of folic acid fortification. The study measured the first-year survival rates of 2,841 infants born with spina bifida and 638 infants born with an encephalocele. The study found that infants with spina

bifida experienced a significantly improved first-year survival rate of 92.1 percent during the period of mandatory folic acid fortification compared with a 90.3 percent survival rate for those born before fortification. For infants born with an encephalocele there was not a statistically significant increase in survival rate. The conclusion of the study was that in addition to reducing the occurrence of neural tube defects, folic acid might also play a role in reducing the severity of neural tube defects.

*WIC Bottom Line:* In WIC we need to continue to encourage all of our participants who are of childbearing age to consume foods rich in folic acid in addition

to taking the recommended 400 microgram of folic acid. This will help to ensure not only the reduction in the risk of having a baby with a neural tube defect but also a reduction in the severity of certain types of neural tube defects.

Sources  
Kirk, A.B., J.S. Collins, and R.S. Kirby. 2006. Survival of Infants with Neural Tube Defects in the Presence of Folic Acid Fortification. Pediatrics 117(3): e803-e813  
American Academy of Pediatrics Policy Statement. 1999. Folic Acid for the Prevention of Neural Tube Defects. Pediatrics 104(2):325-327.



# Local Agency Spotlight



## Texas LAs Benefit from National Peer Counselor Program Model

by Jewell Strempler  
Peer Counselor Coordinator

A young WIC mom, who delivered a premature baby at Oak Bend Medical Center in Richmond, was one of many mothers who benefited from expanded peer counselor services in 2005. During their hospital visit, peer counselor Rosie McGranahan and breastfeeding coordinator Jeannie Lober, from Ft. Bend Family Health Center WIC Program, convinced the mom who “hadn’t thought about breastfeeding,” that her premature baby needed her breastmilk. McGranahan brought a pump from the clinic to the hospital so the mom could start providing her milk to her baby and begin building her milk supply.



It might be a hospital visit, a home visit, or a phone call after clinic

hours; more WIC mothers in Texas are receiving a wider variety of peer counselor services as a result of USDA’s “Loving Support Peer Counselor Program” model and additional funding from Congress.

Texas WIC Local Agencies employ approximately 300 peer counselors at 60 LAs and 40 hospitals (Approximately 169 FTEs). Through a multi-faceted approach, including special breastfeeding promotion projects, staff and health professional training and a strong Peer Counselor Program, Texas WIC breastfeeding rates continue to increase. The number of breastfed infants born to WIC mothers increased by 7,500 from July 2004 to July 2005.

2005 Peer Counselor Program Surveys Enhancements Reported by Local Agencies	# of LAs implementing
Initiating peer counselor services at WIC clinics not previously served	27
Increasing peer counselor hours worked in the clinics	38
Increasing peer counselor salaries	26
Counselors sent to continuing education workshops or conferences	34
Implementing new after-hours telephone counseling	19
Expanding after-hours telephone coverage	7
Purchasing telephone equipment	12
Initiating home visits	12
Increasing home visits	7
Initiating hospital counseling in hospitals not previously served	6
Providing additional hours of hospital counseling	7



Coming next issue  
"An ounce of prevention"

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