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Hillsborough Promotora Project Reaches Latina Women with Folic Acid Education

Contributed by Lisa Colen, MHA, Hillsborough County Healthy Start Coalition

The Promotora Project was started as an education initiative aimed at Latina women who historically have a high rate of neural tube birth defects. The project was developed and piloted in North Carolina in 2009. Four additional sites participated in this initiative over the past year, including Tampa, Dallas, Chicago and the North Carolina Tri State area.

The Tampa project was completed in late November, having educated and followed up with 310 women since January. The Tampa model used four Promotoras who reached out through established connections in Latina communities all over Hillsborough County. While other sites have found it difficult to follow up with participants by phone, our experience is that most of the Latina women live here permanently and were eager to participate and receive their incentive gift card.

The final results concluded that a little under half of the women were still taking folic acid at the four month mark and most of them simply stated they forget to take it on a regular basis. They acknowledged its importance and readily admitted they learned much from the educational component, but did not take it as they should.

Health Care Professionals could help this cause by providing folic acid information and stressing its importance with non-pregnant females of child bearing age. If additional funding becomes available, our coalition would certainly participate in this valuable outreach effort focusing on this message again. Additional information can be obtained by emailing Lisa Colen at lcolen@hstart.org.

The grant, which was funded through the Centers for Disease Control and Prevention (CDC), required that each site educate and follow up with a minimum of 300 Spanish speaking women using a standard curriculum that was provided to all sites. The curriculum focused on the benefits of taking folic acid and the potential consequences if a woman does not take folic acid prior to pregnancy.

Following the initial educational component, the Latina women received a three month supply of folic acid. The Promotoras then completed follow up phone calls at the two month and four month mark to document whether or not the participants were still taking the folic acid supplements. The four month phone call was especially important. At the four month point, the women would have run out of free supplements and would have had to purchase them on their own. Upon completion of that phone call, each woman received a \$15 Wal-Mart gift card as an incentive and thank you gift.

Every Woman Southeast

Every Woman Southeast is a multi-state and multi-layered coalition, which started with the goal of improving the health of women and infants in the south. The initiative was started in 2009.

The coalition offers webinars periodically focusing on maternal, child and women's health, allowing states to learn from each other.

For more information on this initiative please visit:

everywomansoutheast.org

every woman southeast



Addressing Common Myths and Issues about Folic Acid

Contributed by Lakshmi Mahan MS, RD, LDN, Gail Rampersaud MS, RD, LDN, and Gail Kauwell PhD, RD, LDN, University of Florida

Myth #1: Does Excess Folic Acid Increase the Risk for Autism?

The prevalence of autism has increased over the last decade. The potential causes of autism are still being researched, but areas of interest include dietary patterns and intake. One of the practices hypothesized to be associated with autism is consumption of folic acid from prenatal supplements. Although a recent study noted a high correlation ($r=0.87$) between increased rates of autism and the use of prenatal vitamins containing 1 mg (1000 mcg) or more of folic acid (*Med Hypotheses*. 2011;77:15-17), the findings from another study suggested that prenatal vitamin intake was associated with a reduced risk of autism (*Epidemiology*. 2011;22:476-485). Furthermore, another study found that women who did not take a prenatal vitamin during the periconceptional period and who had variations in certain genes that code for key enzymes in folate metabolism had a greater chance of having a child with autism (*Am J Clin Nutr*. 2010;91:1598-1620).

Currently, there is no definitive evidence for an association between folic acid supplementation and increased risk for autism, but there is solid evidence supporting the role of periconceptional folic acid intake in reducing the risk for neural tube defects. Non-pregnant women should be encouraged to obtain 400 mcg of folic acid every day.

Myth #2: Does Folic Acid Increase the Risk for Colorectal Cancer?

Studies conducted prior to folic acid fortification in the US found

that subjects with the highest folate intake or status had a lower risk for colorectal adenoma (CRA), colorectal cancer (CRC) and certain other cancers. However, some researchers have suggested that too much folic acid may spur cancer growth in people in the early stages of cancer development or with existing lesions/cancer.

The results from two meta-analyses and two prospective cohort studies suggest that higher folate intake is associated with lower CRC risk (initiation or early development) (*Int J Cancer*. 2005;113:825-828; *Cancer Cause Control*. 2010;21:1919-1930; *Am J Clin Nutr*. 2011;93:817-825; *Gastroenterology*. 2011;141:98-105). A recent meta-analysis comparing folic acid supplementation to placebo in more than 35,000 participants, reported no increase in cancer incidence or mortality among the supplement group (*Arch Intern Med*. 2010;170:1622-1631).

For those with a history of CRA, the results of three intervention trials reported mixed results, with one study reporting a higher risk for CRA and advanced lesions in the folic acid group 6 to 8 years after treatment (*JAMA*. 2007;297:2351-2359); one study detecting no effect of folic acid on CRA recurrence (*Gastroenterology*. 2008;134:29-38); and a third showing no overall protective effect on recurrence unless folate status was low (<7.5 ng/ml). These studies suggest that in individuals with a history of CRC/CRA, the impact of folic acid is unclear.

Regardless of their history of CRC/CRA, all adults should maintain optimal folate status by consuming adequate folate from sources of naturally occurring food folate. Supplements are not necessary if dietary intake is adequate*, but if a folic acid containing supplement is

taken, it is prudent to limit it to 400 mcg/day or less.

*Note: Women capable of becoming pregnant should consume 400 mcg/day of folic acid from folic acid fortified foods and/or supplements to reduce their risk of having a neural tube defect-affected pregnancy.

Myth #3: Does Folic Acid Decrease the Risk of Cardiovascular Disease?

Studies have suggested that elevated levels of homocysteine (Hcy) are associated with a higher risk of cardiovascular disease (CVD). Researchers proposed that supplementation with folic acid and other B vitamins may reduce Hcy levels and the risk of CVD. A recent meta-analysis of 8 randomized trials of B-vitamin supplementation assessed the effects of lowering Hcy levels by 25% for 5 years. Supplementation had no significant effect on cardiovascular events, total mortality rates or cancer (*J Inherit Metab Dis*. 2011;34:83-91). A double-blind randomized control trial investigating the effect of vitamin B12 and folic acid supplementation in patients who survived a myocardial infarction suggested that there was a 28% reduction in Hcy levels, but no clinical benefit was demonstrated (*CCJM Medicine*. 2010;77:911-918). It is important to note that these studies examined the use of folic acid in individuals with existing CVD.

There is no evidence to support a role for folic acid in lowering the risk for CVD in individuals with existing disease. The American Heart Association (www.heart.org) does not recommend folic acid supplements for reducing the risk of heart disease, rather, a balanced diet providing adequate amounts of folate from fruits, vegetables and other sources is encouraged.

New Data Indicates Hispanic Subgroups at Increased Risk for NTDs

Contributed by Suzanne Block MPH, Epidemiologist, Florida Birth Defects Registry

According to Florida Birth Defects Registry (FBDR) data, from 1998 through 2008 rates of neural tube defect (NTD) affected live births have decreased 33.6% (Figure 1). A comparison of maternal race/ethnic-specific prevalence rates shows no statistically significant differences between non-Hispanic whites (3.76 per 10,000 live births), non-Hispanic blacks (3.68 per 10,000 live births) and all Hispanics (3.53 per 10,000 live births) (Figure 2). However, differences in rates were observed when Hispanic subgroups were examined (Figure 2). From 1998-2008 infants born to mothers of Puerto Rican ethnicity experienced the highest rates of NTD affected live births (5.08 per 10,000) followed by those of Mexican ethnicity (4.29 per 10,000 live births).

Further investigation is needed to examine rates within Hispanic subgroups to identify possible risk factors within the broad ethnic category of Hispanic. This analysis validates the importance of comparing maternal race/ethnic specific prevalence rates and provides the basis for focused intervention and prevention strategies, particularly folic acid education and awareness.

Figure 1. Rates of NTDs to Florida Resident Mothers per 10,000 live births, FBDR 1998-2008

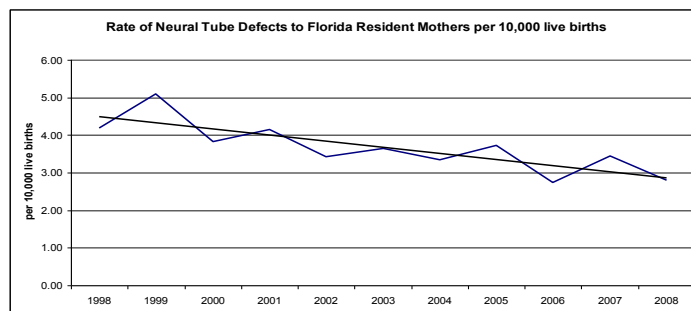
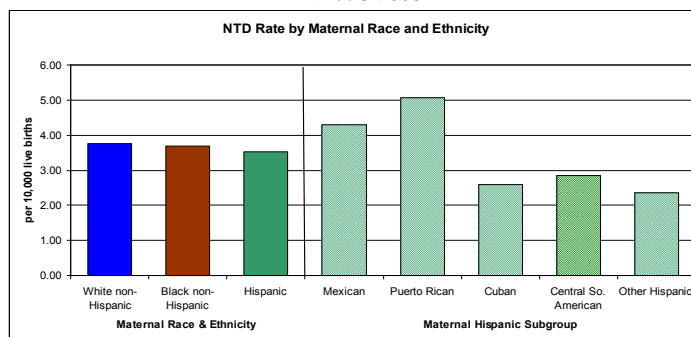


Figure 2. Rates of NTDs by Maternal Race & Ethnicity and Maternal Hispanic Subgroup to Florida Resident Mothers per 10,000 live births, FBDR 1998-2008



Free Folic Acid Resources for your Patients

Contributed by Lakshmi Mahan MS, RD, LDN, and Gail Rampersaud, MS, RD, LDN, University of Florida

National Folic Acid Awareness Week is January 8th-14th and Florida Folic Acid Awareness Week is February 6th-10th, so make sure you have resources available to educate your patients/clients about the importance of folic acid.

Free resources in English and Spanish can be downloaded or ordered from the Centers for Disease Control and Prevention, including: posters, booklets, brochures and fact cards. Resources are available for women who are thinking about pregnancy, women who are not thinking about pregnancy, women who have recently had a baby, families with children with spina bifida/neural tube defects, and health care providers.

<http://www.cdc.gov/ncbddd/folicacid/freematerials.html>

The WIC Works Sharing Gallery has a variety of resources from WIC facilities all over the nation. One example is “Why Every Woman Needs Folic Acid”, developed by Tennessee WIC.

http://www.nal.usda.gov/wicworks/Sharhing_Center/statedev.html

The National Council for Folic Acid has a folic acid fact sheet that lists basic details on what folic acid is, why it is important, how much folic acid is needed, and how to get folic acid.

[http://www.folicacidinfo.org/includes/misc/FactsAboutFolicAcid_English\[1\].pdf](http://www.folicacidinfo.org/includes/misc/FactsAboutFolicAcid_English[1].pdf)

The March of Dimes has great information on various aspects of periconceptional and prenatal health, as well as information on caring for and promoting infant health. They have also developed a Spanish website.

<http://www.marchofdimes.com>

<http://nacersano.org/>

For more resources, please visit the Florida Folic Acid Coalition’s website at

<http://www.folicacidnow.net/resources.html>



Folic Acid Research Update

Contributed by Lakshmi Mahan MS, RD, LDN, and Gail Rampersaud MS, RD, LDN

Folic acid supplements modify the adverse effects of maternal smoking on fetal growth and neonatal complications. Baker et al. *J Nutr.* 2011 Dec;141(12):2172-9.

[Abstract](#)

Folic acid supplements in pregnancy and severe language delay in children. Roth et al. *JAMA.* 2011 Oct 12;306(14):1566-73.

[Abstract](#)

Folic acid and orofacial clefts: a review of the evidence. Wehby et al. *Oral Dis.* 2010 Jan;16(1):11-9.

[Abstract](#)

Lack of maternal folic acid supplementation is associated with heart defects in Down syndrome: a report from the National Down Syndrome Project. Bean et al.

Birth Defects Res A Clin Mol Teratol. 2011 Oct;91(10):885-93. [Abstract](#)

Acculturation factors are associated with folate intakes among Mexican American women. Hamner et al.

J Nutr. 2011 Oct;141(10):1889-97.

[Abstract](#)

Periconceptional intake of folic acid and food folate and risks of preterm delivery. Shaw et al.

Am J Perinatol. 2011; Epub ahead of print.

[Abstract](#)

Possible association of folic acid supplementation during pregnancy with reduction of preterm birth: a population-based study. Czeizel et al.

Eur J Obstet Gynecol. 2010 Feb;148(2):135-40. [Abstract](#)

Uptake of folic acid supplements before and during pregnancy: focus group analysis of women's views and experiences. Barbour et al.

J Hum Nutr Diet. 2011; Epub ahead of print. [Abstract](#)

Florida Folic Acid Awareness Week

Is February 6th-10th 2012. For more information visit www.folicacidnow.net



National Folic Acid Awareness Week

This annual event was observed January 8th-14th 2012. For resources visit: www.folicacidinfo.org

Institute of Food and Agricultural Sciences
University of Florida
PO Box 110720
Gainesville, FL 32611-0720



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WWW.FOLICACIDNOW.NET

Published by the
Florida Folic Acid Coalition
Editors & Reviewers

Suzanne Block, MPH

Carol Brady

Deborah Burch, RN, MSN, CPCE

Sondra Cornett, MS, RD, LDN

Jane Correia, BS

Gail Kauwell, PhD, RD, LDN

Russell Kirby, PhD, MS, FACE

Lakshmi Mahan, MS, RD, LDN

Donna Poynor

Gail Rampersaud, MS, RD, LDN

Lori Reeves, MPH

Florida Folic Acid Coalition

Mission:

Decrease the incidence of folic acid preventable birth defects and promote optimal folate status among Floridians.

Vision:

As a result of the Coalition's efforts, this simple primary prevention strategy will result in fewer pregnancies affected by folic acid preventable birth defects. More Floridians will recognize the benefits of achieving and maintaining optimal folate status.