In January 2006, faculty in the Food Science and Human Nutrition Department, Institute of Food and Agricultural Sciences, University of Florida, received a grant from the March of Dimes Florida Chapter to develop and evaluate a folic acid (FA) worksite wellness program. Research suggests that worksite health promotion programs can be effective and, with approximately 60% of women over the age of 16 in the workforce, provides a venue for promoting the health benefits of FA.

A toolkit was developed to promote FA knowledge and daily intake of this important vitamin by all adults, especially women of childbearing age. Four companies (5 worksites) – Central Florida Regional Hospital, Fort Walton Beach Medical Center, a manufacturing facility in Jacksonville, and Florida Power and Light in West Palm Beach and Miami — agreed to participate in the evaluation component of the program. Each company was provided a toolkit and instructed on the use of the kit and ways to implement the program. Toolkit components included an educational guide, FA-themed posters, brochures, and handouts, a PowerPoint® presentation with script, DVDs with three FA videos, and a CD-ROM with information about FA that could be adapted for employee emails, newsletters, or a Web site. For four continuous weeks, each worksite promoted the health benefits of FA using a variety of materials and activities from the toolkit. Employees completed a baseline FA knowledge and behavior survey before program implementation. Approximately four weeks after the end of program implementation, they completed a post-program survey for comparison.

A total of 314 employees from all worksites completed both a baseline and post-program survey. Implementation of the program was associated with significant increases in FA knowledge and awareness among all employees and among women of childbearing age.
The National Council on Folic Acid—A New Approach
Contributed by Doretta Ho, graduate student, UF/IFAS/FSHN

The National Council on Folic Acid (NCFA) is a partnership of national organizations and associations working together to improve health by promoting the benefits and consumption of folic acid. NCFA's ultimate goal is to eliminate preventable neural tube defects through the use of folic acid. In 2007, the Spina Bifida Association (SBA) received a grant from the Centers for Disease Control and Prevention to be the managing agent for NCFA. To better define their mission and role, the NCFA Steering Committee conducted an online strategic planning survey to gather members’ insights on NCFA's purpose, priority audiences, current situation, future direction and critical priorities.

Success of VitaGrant Yields Best Practices
Contributed by Doretta Ho, graduate student, UF/IFAS/FSHN

VitaGrant was a tremendous success and established and maintained partnerships with over 250 different program venues, trained over 2,000 health care and social service providers and staff, and distributed over half a million bottles of multivitamins statewide. The program increased knowledge and multivitamin consumption behaviors of the women who participated. After a three year effort, the VitaGrant program was officially completed on February 29, 2008.

As part of the evaluation component of VitaGrant, select providers shared their “best practice” guidelines to inform other preconception programs:

- Place multivitamins in the visual line of site of staff and clients to maintain easy access at the site.
- Use visual prompts such as posters, lanyards, and buttons (e.g. “Ask for your Free Multivitamins”).
- Teach women how to use timing or reminder devices to help them remember to take their multivitamins daily.
- Consider providing chewable multivitamins and utilize memory aids to increase daily compliance with multivitamin use.
- Provide ethnically diverse women with culturally appropriate materials and seek out specialty providers (e.g., migrant associations) who target and are more likely to reach these high-risk groups.

The VitaGrant program can serve as a model to others who may be interested in promoting folic acid, multivitamin use, or other preconceptional health issues that can positively affect birth outcomes.
**Research Update**

Contributed by Doretta Ho, graduate student, UF/IFAS/FSHN and Gail Rampersaud, MS, RD, LDN, Assistant in Nutrition Research and Education, UF/IFAS/FSHN

A Centers for Disease Control and Prevention (CDC) report evaluated folic acid knowledge, awareness and behavior among women of childbearing age (aged 18-45 years). Data were based on national telephone surveys that were conducted annually from 2003 to 2007 and included over 2,000 participants each year. Women aged 18-24 years had a lower level of knowledge and awareness and lower reported daily use of folic acid-containing supplements compared to older age groups. Women from this age group identified schools/colleges and magazines/newspapers as their primary sources for folic acid information. Overall, 40% of women indicated taking a folic acid-containing supplement, an increase from 33% in 2005. [Petrini et al. CDC (MMWR). 2007;57(01):5-8.]

An analysis of population-based data from 21 birth defect surveillance systems in the U.S. examined trends in the birth prevalence of spina bifida and anencephaly during 1999-2004 following the folic acid fortification mandate. For all infants, the combined birth prevalence of spina bifida and anencephaly decreased 10% from 1999 to 2004, which included a non-significant decrease of 3% for spina bifida and a significant decrease of 20% for anencephaly. Hispanic infants were found to have the highest prevalence of neural tube defects for all years. [Boulet et al. Birth Defects Res A Clin Mol Teratol. Published online May 15, 2008.]

A meta-analysis of 12 studies reported a significant association between maternal obesity and increased risk for a neural tube defect (NTD)-affected pregnancy. Compared to normal weight women, maternal obesity and severe obesity were associated with a 1.7-fold and >3-fold, respectively, increased risk of NTDs. Impaired glucose metabolism, metabolic syndrome, poor quality diet and lower responsiveness to folic acid by obese women were possible mechanisms suggested by the authors that may contribute to the observed association. [Rasmussen et al. Am J Obstet Gynecol. 2008;198:611-619.]

A prospective cohort study in Canada that followed 2,951 pregnant women from their prenatal care visit at 12-20 weeks gestation through delivery reported a significant 63% reduced risk of preeclampsia with supplementation of multivitamins containing folic acid in the second trimester of pregnancy. Folic acid supplementation was associated with significantly higher serum folate and lower plasma homocysteine concentrations. [Wen et al. Am J Obstet Gynecol. 2008;198(1):45.e1-45.e7.]

Results suggest that the worksite is a practical venue for FA education. The toolkits are expected to be finalized in August 2008 and distributed to worksites throughout Florida. By encouraging optimal intake of FA, employees, particularly women of childbearing age, could benefit through enhanced health and more positive birth outcomes.

For more information contact Gail Rampersaud at gcr@ufl.edu.

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**Folic Acid Worksite Program** (continued from page 1)

![Figure 1: Folate and multivitamin awareness and behavior indicators for women of childbearing age. * P<0.012 and **P<0.0001 compared to baseline (test of proportions).](image)

Although a higher proportion of employees indicated taking a multivitamin post-program, the increase from baseline was not statistically significant. Employees who indicated they heard about folate through their place of employment (presumably through the worksite program) had greater knowledge about FA and were more likely to make an effort to increase folate intake or discuss the health benefits of folate with others compared to employees that heard about FA through other sources.
Florida Folic Acid Coalition

Mission:
Decrease the incidence of folic acid preventable birth defects and to reduce chronic disease risk in 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 experience the indirect health benefits of taking a daily multivitamin to enhance health throughout their lifespan.

NCFA—A New Approach (continued from page 2)

Survey results were discussed in a strategic planning retreat held in February 2008. There were two key findings from the survey: (1) 75% of survey respondents indicated satisfaction with the current NCFA mission statement “to improve health by promoting the benefits and consumption of folic acid”, and (2) the most important role for NCFA was identified as “being recognized as a national leader on issues related to folic acid”.

As part of the strategic planning process, NCFA has created several workgroups including a Capacity Building Workgroup to develop a work plan to address NCFA’s structure, a Membership Workgroup to develop a work plan to address how NCFA will increase and enhance member services, and an Advocacy Workgroup to convene once the charges of the other workgroups have been achieved. NCFA also offered grant opportunities for local agencies to promote and increase awareness of folic acid for women of childbearing age.

This re-evaluation of NCFA’s work and structure sets forth an exciting goal as NCFA continues to build awareness of the benefits of folic acid using a variety of creative methods to reach health care providers, policymakers and consumers.

For more information contact Adriane Griffen at agriffen@sbaa.org.

Lynda Knight, Director of North Central Florida March of Dimes, Retires

The Florida Folic Acid Coalition would like to recognize and congratulate Lynda Knight for her dedicated and extraordinary service to the March of Dimes. For 18 years, Lynda has been the Executive Director and driving force behind the success of the North Central Florida Division, garnering numerous “Chapter of the Year” awards and number 1 rankings (fundraising per capita) for WalkAmerica. In retirement, Lynda will be greatly missed by all of us who have had the pleasure of working with her to help save babies.

Best of luck, Lynda!!