# An Example of a Preconception Health Message: North Carolina Folic Acid Campaign

### First Time Motherhood/New Parent Initiative

EDGECOMBE - GATES - HALIFAX - HERTFORD - NASH - NORTHAMPTON









### **About the NCFAC**

- The North Carolina Folic Acid Campaign is a statewide program whose mission is to improve health by promoting the benefits and consumption of folic acid
- Goal is to reduce the number of pregnancies affected by neural tube birth defects (NTDs), such as spina bifida and anencephaly
- Folic acid deficiency identified as a preconception risk factor in the CDC's 2006 guidelines





### **About the NCFAC**

- Statewide staff working in all 100 counties
- Bilingual campaign (English/Spanish)
- Community education
- Health care provider education
- Marketing campaign
- FREE materials (English/Spanish) available via website (www.getfolic.com)



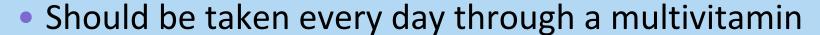


### Folic Acid 101

#### Folic acid is a B-vitamin that

- Aids cell growth and energy production
- Reduces the incidence of neural tube defects





- Can also be found in a synthetic form in certain foods such as: orange juice, fortified breads and cereals, pasta, & rice
- Folate, a naturally occurring form, can be found in broccoli, spinach, and beans







### **Folic Acid and NTDs**

- If taken BEFORE pregnancy, folic acid can prevent up to 70% of neural tube defects (NTDs) such as spina bifida and anencephaly
- Each year in NC approximately 200 pregnancies are affected by a neural tube defect
- About half of these pregnancies result in spontaneous miscarriages, terminations, or fetal death, while the others will be born with some degree of disability, sometimes severe
- NTDs are expensive. In NC, Medicaid claims for infants with spina bifida exceed \$1 million per year





### Additional benefits of folic acid\*

 Taking before conception and/or during pregnancy, folic acid may also reduce the risk of cleft lip and cleft palate, congenital heart defects, preeclampsia, and pediatric cancer

- Folic acid may also reduce the risk later in life of
  - Colon cancer
  - Heart disease
  - Stroke





### **NTDs in North Carolina**

### Incidence varies by geography

NC	6.7 per 10,000 live births
West	4.8
Triad	7.9
Piedmont	5.5
Triangle	5.9
Cape Fear	8.4
East	7.0

### **Incidence varies by** <u>race</u>

Latino/Hispanic	11.8 per 10,000 live births
non-Latino African American	6.2
non-Latino Caucasian	5.8





### **U.S. Public Health Service Recommendation:**

"All women of childbearing age in the United States who are capable of becoming pregnant should consume 400 mcg of folic acid per day for the purpose of reducing their risk of having a pregnancy affected with spina bifida or other NTDs."

#### What we know...

- About half of all pregnancies in the US are unintended
- NTDs occur very early on in pregnancy, usually before a woman even knows she is pregnant





### **Recurrent recommendation**

- For women who have had a previous pregnancy affected by a neural tube defect, their risk of having another NTD affected pregnancy is 2%-3%.
- The PHS recommendation for these women is to take 400 mcg daily when not planning to become pregnant and 4 milligrams of folic acid one month before planning/attempting a pregnancy and through the first three months of pregnancy.



# Your patients are listening!

 "Reinforcement of public awareness campaigns has been demonstrated to increase the use of folic acid supplementation."



 March of Dimes Gallup Survey results between 2004-2008 show that 86-89% of women who do not take a daily multivitamin state they would likely do so if advised by their health care provider.



# What are providers talking about in N.C.?

# Data based on evaluation of N.C. Folic Acid Campaign's health care provider education program

#### Methods:

- Random selection of private practices statewide in 2007
  - Limited to OB-GYN and family practices
  - Practices that already received intervention were excluded
- Health care providers defined as physicians, midlevels, and all nursing staff





# Results: Knowledge

# Percent of healthcare providers who correctly identified:

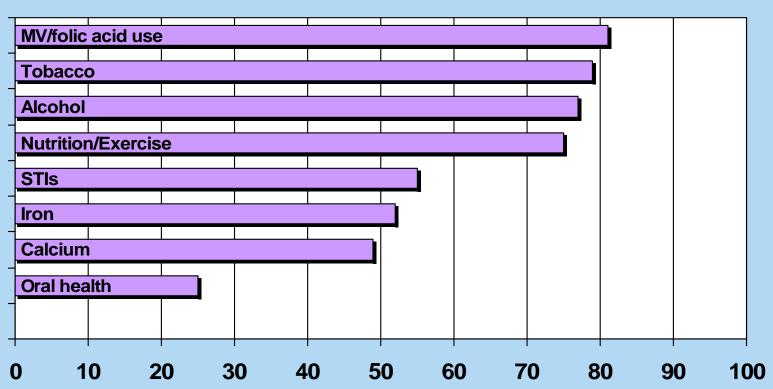
Unintended pregnancy rate in U.S.	
Proper timing for folic acid	
supplementation to prevent NTDs	
Recommended dose of daily folic	
acid for women of childbearing age	





# Results: "Preconception" visit

# Percent of health care providers who discuss the following preconception topics at a visit when a female patient expresses interest in pregnancy

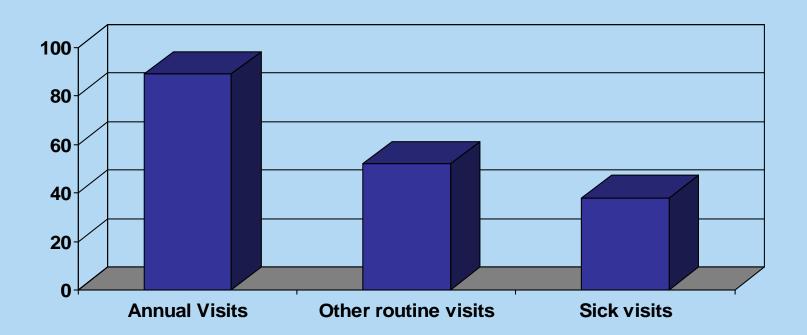






# **Results: "Typical Practice"**

Percent of health Results: "Typical Practice" care providers who inquire about folic acid/multivitamin use at:

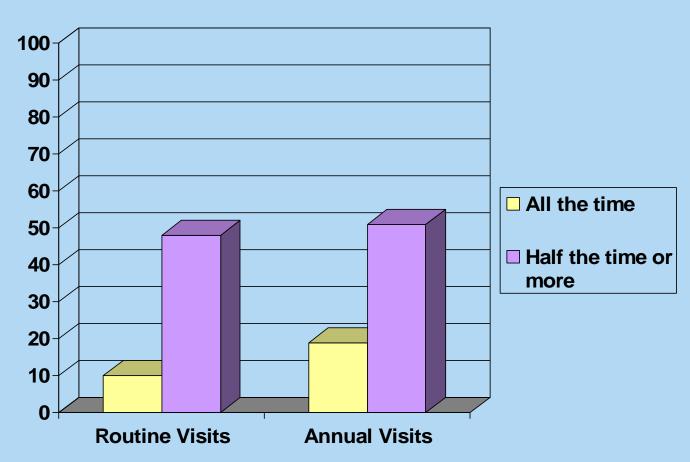






# **Results: "Typical Practice"**

# Percent of health care providers who *counsel* about folic acid/multivitamin use at:







### **Implications**

If asked...providers do good job of preconception counseling

81% counsel about multivitamins/folic acid

- If not asked...?
   19% always counsel about multivitamins/folic acid (annual)
- Lost opportunities abound half of U.S. pregnancies unintended so most women are NOT likely to ask





### Recommending folic acid to women of childbearing age

- A recent AJOG article outlined specific recommendations for the health promotion of all women of reproductive age, irrespective of their intent to become pregnant.
- The article graded the preconception recommendations based on strength and quality of evidence that supports the recommendation.
- Folic acid was given an A for strength of recommendation (highest) and 1-a (highest) for quality of evidence.
- "All women of reproductive age should be advised to ingest 400 mcg of synthetic folic acid daily from fortified foods and/or supplements and to consume a balanced, healthy diet of folate-rich food."





### Preconception Health: Incorporating it into every encounter

### "Opportunistic" - Merry-K Moos

"...every clinical encounter before pregnancy offers an opening to explore and reinforce health promotion by addressing such health topics as weight management, dietary supplements, exercise, immunization status, benefits of deliberate decisions regarding pregnancy and contraceptive options, protections against STIs, and avoidance of exposures that include tobacco, alcohol, and other drugs."





### How?

Work smarter – not harder!

 Rather than adding yet another task to your checklist, integrate preconception health messages such as folic acid into your current conversations with patients

 Think about how individuals and entire practices can make changes to make this easy





### How? Tips for you...

# Make sure to share these helpful tips with your patients!

### Buying multivitamins:

- The store or generic forms are just as good as the name brand and often cost a lot less.
- They are often available at the different "dollar" stores.
- Remind patients to check the expiration date.
- Check the label for 400 mcg of folic acid.





# How? Tips for you...

### **Taking multivitamins:**



- Remind patients to take only one per day.
- Suggest that patients make them a part of their daily routine by placing them near their toothbrush, computer, keys, or coffee maker.
- Suggest that patients take them with food or before they go to bed.
- If your patients don't like to swallow pills, they can buy a chewable or liquid form.
- Dispel the myth that multivitamins make you gain weight.





# How? Tips for your practice...

- Add a multivitamin question to intake forms
- Have a folic acid office champion
- Distribute multivitamins as a teaching tool/reminder item
- Facilitate cross-disciplinary discussions in your practice to determine who is counseling about what and how preconception counseling can happen effectively
- Empower nurses to take ownership and provide leadership in preconception health counseling – wellness is where nurses excel!





# Giving out vitamins works!

- 24 local health departments in Western NC have participated in a MV distribution program since 2003
- Free bottles of 100 vitamins are given to patients along with <u>verbal interaction with HCP</u> and brochures
- Most recent evaluation: 322 phone surveys completed





### The Results

 25% reported taking a daily MV or folic acid supplement before intervention

 53% reported taking a daily MV 8-10 months later







### The Results

 Race/ethnicity: Hispanic women reported the greatest increase in intake, with more than 3X as many taking a vitamin after the intervention.

 Age: Those younger than 25 years of age had the greatest increase in daily MV consumption.





### **Discussion**

- Think about how you currently recommend folic acid to your patients?
- What improvements can you make?
- What can you do to make those changes?
- What needs to happen in your practice so that women who may not be planning a pregnancy (but get pregnant next week) get this message at every visit?
- How can you make sure this happens in your office?





### **Discussion**

# Now that you have thought about how you incorporate a preconception message like folic acid into your practice...

 What other preconception messages can you work on/add?

 How & where can those messages be incorporated?





### **Get more information**

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Our website has been redesigned and expanded! Please visit www.getfolic.com for more information and free educational materials.









### References

- Wilcox AJ, et al. "Folic Acid Supplements and the risk of facial clefts: A National population-based control study." British Medical Journal, Jan 2007.
- Goh YI, et al. "Prenatal multivitamin supplementation and rates of congenital anomalies: a meta-analysis." Journal of Obstetrics and Gynecology of Canada 28:680-689.
- Bodnar LM, et al. "Periconceptional Multivitamin Use Reduces the Risk of Preeclampsia". The American Journal of Epidemiology, June 13, 2006.
- Goh YI, et al. "Prenatal Multivitamin Supplementation and Rates of Pediatric Cancers: A Meta-Analysis." Clinical Pharmacology & Therapeutics. Vol. 81, No. 5, May 2007.
- Giovannucci E, et al. "Multivitamin Use, Folate, and Colon Cancer in Women in the Nurses' Health Study" Ann Int Med October 1998; Volume 129 Issue 7, 517-524.





### References

- Bayston R, et al. "Folic acid fortification and cancer risk" The Lancet 2007; 370:2004.
- Ulrich C, et al. "Folate and Cancer-Timing Is Everything". JAMA Editorials, June 6, 2007; Vol 297; No. 21; pp 2408-2409. Wang X, et al. "Efficacy of Folic Acid Supplementation in Stroke Prevention: a Meta-analysis". Lancet, June 2, 2007 Vol. 369, pp.1876-82.
- de Beer, A; et al. "Folic acid improves vascular reactivity in humans: a meta-analysis of randomized controlled trials." Am J Clin Nutr, Sept 2007. Vol 86:610-17
- Bazzano, LA et al "Dietary Intake of Folate and Risk of Stroke in US Men and Women: NHANES I Epidemiologic Follow-Up Study" Stroke. 2002 May;33(5):1188-9
- Wang, X, et al. "Efficacy of Folic Acid Supplementation in Stroke Prevention: a Meta-analysis". June 2, 2007. *Lancet*; Vol. 369, p.1876-82.



