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 is a B-vitamin that

- Aids cell growth and energy production
- Reduces the incidence of neural tube defects
- Is soluble in water
- Should be taken every day through a multivitamin
- 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

*References provided on slides 28-29
# NTDs in North Carolina

## Incidence varies by geography

<table>
<thead>
<tr>
<th>Region</th>
<th>Incidence per 10,000 live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>6.7</td>
</tr>
<tr>
<td>West</td>
<td>4.8</td>
</tr>
<tr>
<td>Triad</td>
<td>7.9</td>
</tr>
<tr>
<td>Piedmont</td>
<td>5.5</td>
</tr>
<tr>
<td>Triangle</td>
<td>5.9</td>
</tr>
<tr>
<td>Cape Fear</td>
<td>8.4</td>
</tr>
<tr>
<td>East</td>
<td>7.0</td>
</tr>
</tbody>
</table>

## Incidence varies by race

<table>
<thead>
<tr>
<th>Race</th>
<th>Incidence per 10,000 live births</th>
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</thead>
<tbody>
<tr>
<td>Latino/Hispanic</td>
<td>11.8</td>
</tr>
<tr>
<td>non-Latino African American</td>
<td>6.2</td>
</tr>
<tr>
<td>non-Latino Caucasian</td>
<td>5.8</td>
</tr>
</tbody>
</table>
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
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.
• “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, mid-levels, and all nursing staff
**Results: Knowledge**

Percent of healthcare providers who correctly identified:

<table>
<thead>
<tr>
<th>Unintended pregnancy rate in U.S.</th>
<th>63%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper timing for folic acid supplementation to prevent NTDs</td>
<td>87%</td>
</tr>
<tr>
<td>Recommended dose of daily folic acid for women of childbearing age</td>
<td>53%</td>
</tr>
</tbody>
</table>
Percent of health care providers who discuss the following preconception topics at a visit when a female patient expresses interest in pregnancy:

- Tobacco
- Nutrition/Exercise
- Alcohol
- MV/folic acid use
- STIs
- Iron
- Calcium
- Oral health
Percent of health care providers who inquire about folic acid/multivitamin use at:

- Annual Visits: 100%
- Other routine visits: 60%
- Sick visits: 40%
Results: “Typical Practice”

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

- All the time
- Half the time or more

Bar chart showing the percentage of health care providers who counsel about folic acid/multivitamin use during routine and annual visits.
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
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.”
“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
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.
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 verbal interaction with HCP 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

References