

Slides Loading...Please
Wait

MCHB/DHSPS
January, 2008 Webcast
Preventing Birth Defects with Folic Acid
January 8, 2008

Moderator'
Johannie Escarne


 National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


**Preventing Birth Defects with Folic Acid:
 What You Need to Know, What You Can Do**
 hosted by




National Council on Folic Acid

The National Council on Folic Acid is managed by the Spina Bifida Association.
 


 National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


**Preventing Birth Defects with Folic Acid:
 What You Need to Know, What You Can Do**
 hosted by




National Council on Folic Acid

Adriane K. Griffen, MPH, CHES
 Director of Health Promotion and Partnerships
 Acting Chair, National Council on Folic Acid




 National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Outline

- Folic Acid 101
- PRAMS data - Unintended Pregnancy and Multivitamin Use
- Folic acid counseling
- Personal perspective




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Folic Acid 101 Outline

- Epidemiology of Spina Bifida and anencephaly (NTDs)
- Clinical trials to show efficacy/effectiveness of folic acid in preventing of NTDs
- Folic Acid PHS recommendations
- Impact of folic acid fortification and supplementation in reducing the prevalence of NTDs in U.S.


SPINA BIFIDA ASSOCIATION


National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Neural Tube Defects (NTDs)

- Spina bifida and anencephaly
– 3,000 yearly U.S. -- 250,000 worldwide
- Spina bifida is most frequently occurring permanently disabling birth defect
- Leading cause of infantile paralysis in U.S.
- \$400 million/year spent on care of children born with NTD in U.S.
- Very strong evidence shows that consumption of folic acid prevents 50-70% of NTDs


SPINA BIFIDA ASSOCIATION


National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Folic Acid +/- Multivitamins NTD Studies, 1980-1999

Studies	% reduction
'80-Smithells	86%
'81-S. Wales	59%
'88-Atlanta	60%
'89-W. Australia	70%
'89-CA/Illinois	7%
'89-Boston	65%
'90-Cuba	100%
'91-UK-MRC	71%
'92-Hungary	100%
'93-New England	60%
'95-California	52%
'99-P.R. China	80%


SPINA BIFIDA ASSOCIATION


National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


1992 U.S. PHS Folic Acid Recommendation

- 400 micrograms (0.4mg) folic acid daily for all women capable of becoming pregnant
- If a woman has already had a pregnancy affected by an NTD, 4000 micrograms (4.0mg) folic acid is recommended before her next pregnancy
- Increase consumption of folic acid/folate:
 - Improve dietary habits
 - Consume fortified foods
 - Take a daily folic acid supplement




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Improve dietary habits

- possible to obtain the recommended dosage of folic acid through foods, but it is difficult
- human body actually absorbs the synthetic form of folic acid better than the natural form of folic acid called "folate."




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Consume fortified foods

- In 1998, the Food and Drug Administration required the addition of folic acid to "enriched"
 - breads,
 - cereals,
 - flours,
 - pastas,
 - rice and
 - other grain products

in order to increase the amount of synthetic folic acid in the general population's diet.




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Consume fortified foods

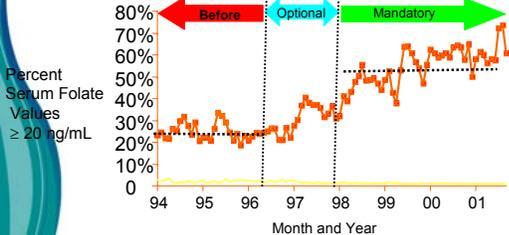
- United States Economic (CEA & CBA) Evaluation of Folic Acid Fortification
 - In 1998 U.S. fortified wheat flour at 140 mcg/ 100g flour
 - Reduction in NTDs -- 26%
 - Cost of fortification \$3 million per year
 - Direct cost averted \$125 million per year
 - Total (D & I) costs averted \$ 425 million per year

Grosse, Watzman, Romano, Mulinare (Am J Public Health, 2005)




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Consume fortified foods



Percent Serum Folate Values ≥ 20 ng/mL

Month and Year

Lawrence JM, Pettit CB, Wolfson M, Umekubo MA. Trends in serum folate after food fortification. *Lancet* 1999;354:915-8.
 Lawrence JM, Chiu V, Pettit CB. Fortification of Foods with Folic Acid [letter]. *NEJM* 2000; 343: 970.
 Data for 2000 and 2001 added since publication. Data for 2001 is from January through September, 2001. (12-4-01)




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Consume fortified foods

- From 1999 through 2004 there was an 8% to 16% decline in the level of the vitamin folate in the blood of U.S. women of childbearing age
 (January 5, 2007 issue of the Centers for Disease Control and Prevention (CDC) *Morbidity and Mortality Weekly Report*)
- Folate consumption decrease in those women with the lowest folate status was disproportionately small. These results reinforce the need to maintain monitoring of the way fortification is implemented.
 (American Journal of Clinical Nutrition, Vol. 86, No. 6, 1773-1779, December 2007)

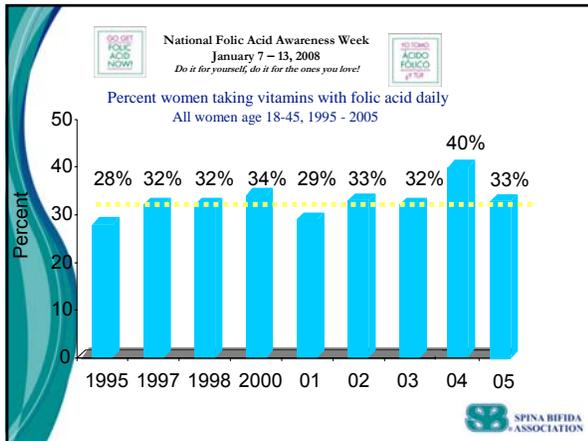



National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Take a daily folic acid supplement

- easiest way to be sure to get the recommended daily amount of folic acid is to take a multivitamin every day
 - as part of a healthy diet






National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Conclusions

- The economic benefit exceeds the costs of implementing food fortification efforts with folic acid.
- At the present time, there are no known adverse effects at current folic acid fortification levels.
- Sustained multi-level tactics of multivitamin use, food fortification and improving dietary habits




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Thanks

- National Council on Folic Acid Seminar Workgroup:
 Mary Mitchell, American College of Obstetrics and Gynecology

 Lauren O'Connor, Consumer Representative

 Kay Pearson, National Birth Defects Prevention Network/Oklahoma Coalition on Folic Acid
- Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities


SPINA BIFIDA ASSOCIATION


National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


For more information

- National Council on Folic Acid Website:
www.folicacidinfo.org
- Spina Bifida Association Website:
www.spinabifidaassociation.org


SPINA BIFIDA ASSOCIATION


National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Outline

- ✓ Folic Acid 101
- PRAMS data - Unintended Pregnancy and Multivitamin Use
- Folic acid counseling
- Personal perspective


SPINA BIFIDA ASSOCIATION

Using PRAMS data to examine Unintended Pregnancy and Multivitamin Use



Folic Acid Awareness Week Seminar
January 8, 2008

Leslie Harrison, MPH
Denise D'Angelo, MPH



Pregnancy Risk Assessment Monitoring System (PRAMS) Overview





What is PRAMS?



- Ongoing population-based surveillance system
- State/site-specific data
- Self-reported data on maternal behaviors and experiences before, during, and after pregnancy





Goal



- Reduce maternal and infant morbidity and mortality by impacting
 - Maternal and infant health programs
 - Health policies
 - Maternal behaviors



PRAMS Methodology



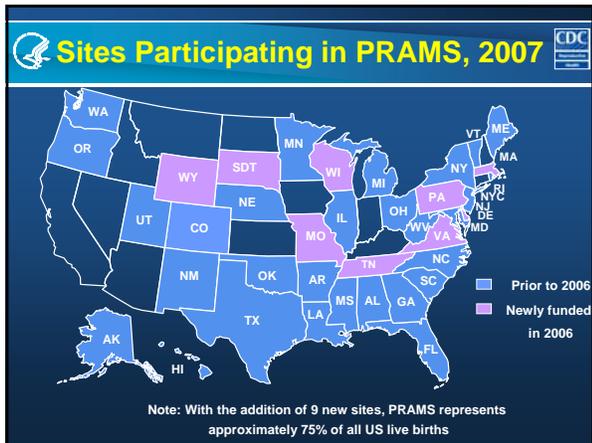
- Standardized data collection protocol
- Mailed questionnaire
- Telephone follow-up for non-responders

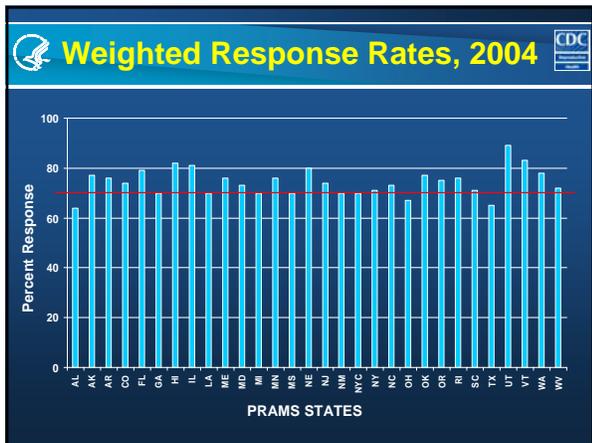


Selecting women for PRAMS



- Target population: women who have had a recent live birth
- Frame: file of birth certificate records
- Monthly sample drawn 2-6 months after birth of infant
- Stratified random sample; state choose stratification categories (e.g., birth weight, race)





Unintended Pregnancy



Unintended Pregnancy: Background



- 1994 data from National Survey of Family Growth estimated that 49% pregnancies are unintended
 - National sample
 - Face-to-face interviews
 - Conducted periodically (pre 2006)
 - Collects detailed information on reproductive history

Source: Henshaw SK. Unintended pregnancy in the United States. Fam Plann Perspect 1998;30:24-9, 46



Unintended Pregnancy: Background



- Unintended pregnancy associated with:
 - Late entry into prenatal care
 - Tobacco Use
 - Alcohol Use
 - Physical Abuse
 - Not breastfeeding

Source: Brown SS, Eisenberg LE, eds. The best intentions: unintended pregnancy and the well-being of children and families. Washington, DC: National Academy Press; 1995.



Unintended Pregnancy and PRAMS



- PRAMS estimates differ somewhat from NSFG estimates
 - Subset of states (not national)
 - PRAMS estimates are among women who deliver a live born infant (doesn't include miscarriages, abortions, fetal deaths, stillbirths)
 - Reliable state-specific estimates



Unintended Pregnancy



- PRAMS: Thinking back to *just before* you got pregnant with your new baby, how did you feel about becoming pregnant?
 - I wanted to be pregnant sooner
 - I wanted to be pregnant later
 - I wanted to be pregnant then
 - I didn't want to be pregnant then or at any time in the future
- HP 2010 (9-1): Increase the proportion of pregnancies that are intended to 70 percent (inversely, reduce unintended to 30%)



Unintended Pregnancy Among Women Delivering a Live Infant, PRAMS 2004



Overall: 42.2%
Range: 31.4 - 55.4 percent

HP 2010 Goal: 30%

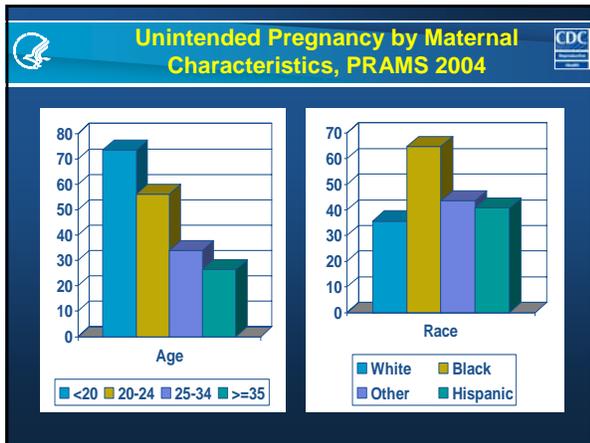


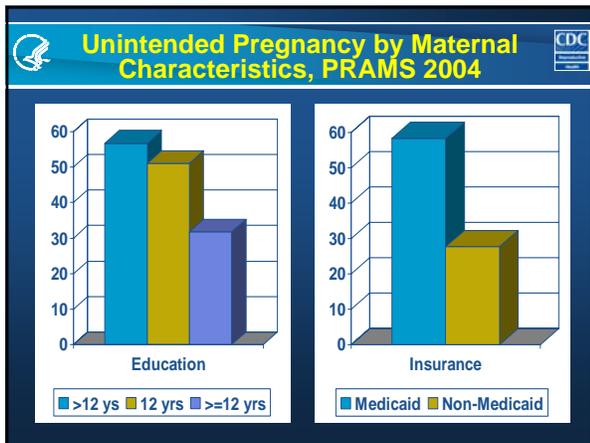
Unintended Pregnancy Among Women Delivering a Live Infant, PRAMS 1997-2004



5 States had a statistically significant change over time

Increase in Alaska, Nebraska and West Virginia; Decrease in North Carolina and Vermont





- ### Other Unintended Pregnancy Statistics from PRAMS, 2004
- Overall prevalence for “mistimed” pregnancy: **31.9%**
 - Overall prevalence for “unwanted” pregnancy: **10.3%**
 - Overall prevalence of husband or partner not wanting pregnancy: **8.9%**
 - Overall prevalence of contraceptive use at time of pregnancy among women with unintended pregnancies: **49.3%**

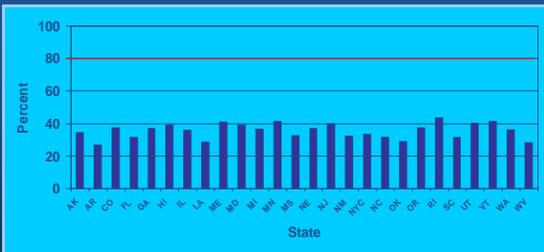
Multivitamin Use




Multivitamin Use

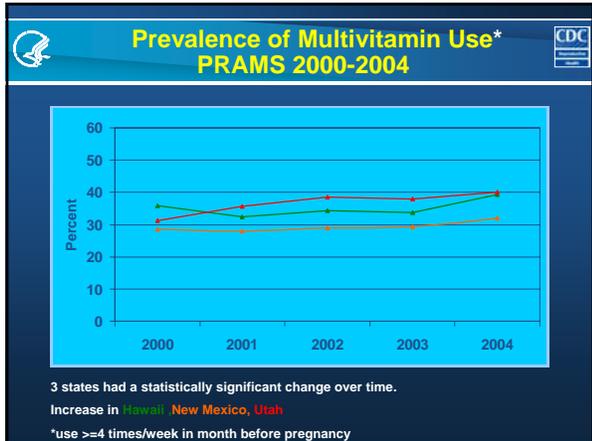
- PRAMS: During the *month* before you got pregnant with your new baby, how many times a week did you take a multivitamin or a prenatal vitamin? These are pills that contain many different vitamins and minerals.
 - I didn't take a multivitamin or a prenatal vitamin at all
 - 1 to 3 times a week
 - **4 to 6 times a week**
 - **Every day of the week**
- HP 2010 (16-16a): Increase the proportion of pregnancies begun with an optimum folic acid level to 80 percent

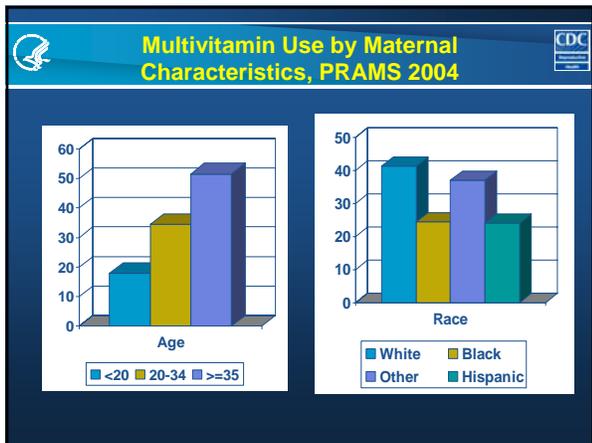
Prevalence of Multivitamin Use*PRAMS 2004

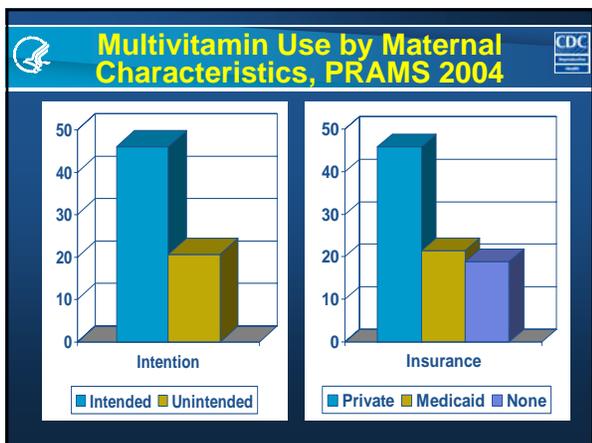


Overall: 35.1%
 Range: AR 26.7 – RI 43.6 **HP 2010 Goal: 80%**

* use >=4 times/week in month before pregnancy







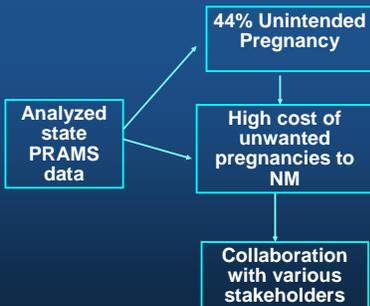
 **Summary of PRAMS findings** 

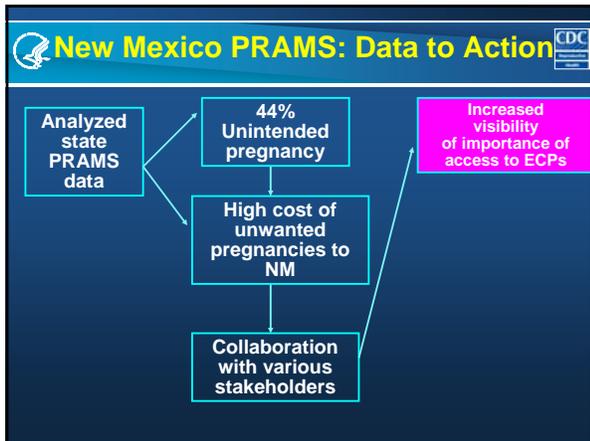
- Unintended pregnancy is prevalent (42% overall ranging from 31%-55% by state)
- Only half of those with unintended pregnancies were using contraception (49%)
- Multivitamin use before pregnancy is low overall (35%)
- Multivitamin use is significantly lower among women with unintended pregnancies than among those with intended pregnancies (21% vs 46%)

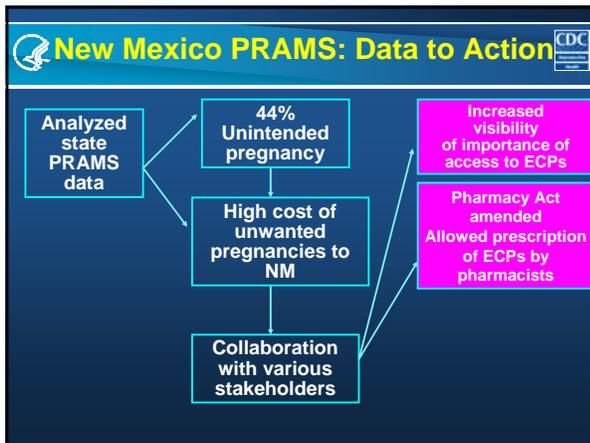
 **PRAMS Data in Action** 

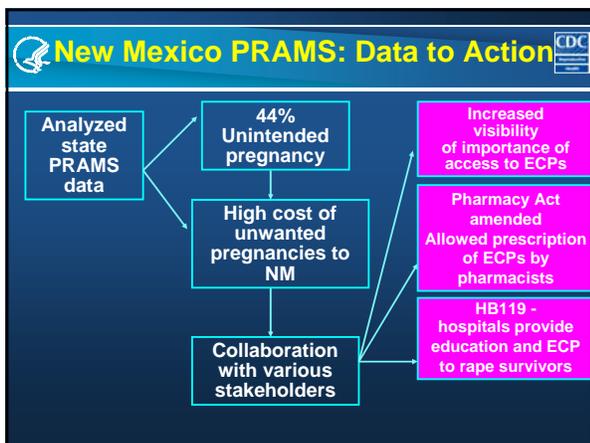
- Conducting needs assessments
- Obtaining resources
- Developing or modifying programs
- Informing policies
- Measuring progress
 - Healthy People 2010
 - Title V Performance Measures
 - Health recommendations & guidelines

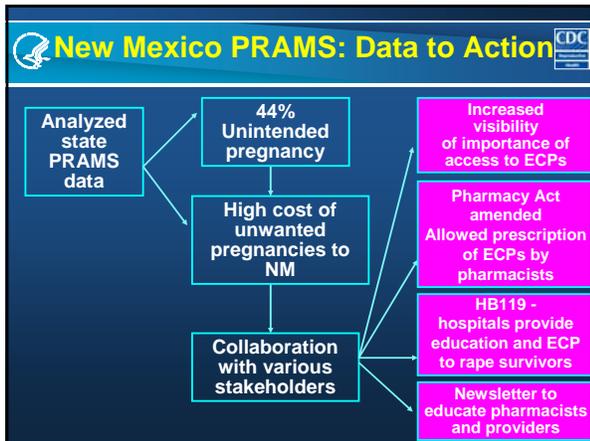
 **New Mexico PRAMS: Data to Action** 











-
- PRAMS Resources**
- PRAMS Website www.cdc.gov/prams
 - PRAMS Surveillance Reports
 - MMWR Surveillance Summaries
 - Preconception Health Summary published December 14, 2007
 - Mini-proposal data request process
 - PRAMS Questionnaire
 - PRAMS state coordinator contact

Acknowledgments - The PRAMS Working Group

Alabama – Albert Woolbright, PhD ; Alaska - Kathy Perham-Hester, MS, MPH; Arkansas - Mary McGehee, PhD; Colorado - Alyson Shupe, PhD; Delaware – Charlon Kroelinger, PhD; Florida – Jamie Fairclough, MPH; Georgia - Carol Hoban, MS, MPH; Hawaii - Sharon Sirling; Illinois - Theresa Sandidge, MA; Louisiana - Joan Wightkin; Maine - Kim Haggan; Maryland - Diana Cheng, MD; Massachusetts - Hafsatou Diop, MD, MPH; Michigan – Violanda Grigorescu, MD, MSPH; Minnesota - Jan Jernell; Mississippi – Vernesia Wilson, MPH; Missouri – Venkata Garikapaty, MSc, MS, PhD, MPH; Montana - JoAnn Dotson; Nebraska – Jennifer Severe-Oforah; New Jersey - Lakota Kruse, MD; New Mexico – Eirian Coronado; New York State - Anne Radigan-Garcia; New York City - Candace Mulready-Ward, MPH; North Carolina - Paul Buescher, PhD; North Dakota – Sandra Anseth; Ohio – Lily Tatham; Oklahoma – Dick Lorenz; Oregon - Kenneth Rosenberg, MD; Pennsylvania - Kenneth Huling; Rhode Island - Sam Viner-Brown, PhD; South Carolina - Jim Ferguson, DrPH; South Dakota – Christine Rinki, MPH; Texas – Eric Miller, PhD; Tennessee - David Law, PhD; Utah – Laurie Baksh; Vermont - Peggy Brozicevic; Virginia – Michelle White; Washington - Linda Lohdefinck; West Virginia - Melissa Baker, MA; Wisconsin - Katherine Kvale, PhD; Wyoming - Angi Crotsenberg; CDC PRAMS Team, Applied Sciences Branch, Division of Reproductive Health



Contact information



Leslie Harrison

CDC Division of Reproductive Health
770-488-6335

LHarrison@cdc.gov

Denise D'Angelo

CDC Division of Reproductive Health
770-488-6288

DDAngelo@cdc.gov

Practical Approaches to Folic Acid Counseling

Catherine Ruhl, CNM, MS
Associate Director, Women's Health Programs
The Association of Women's Health,
Obstetric and Neonatal Nurses

Awareness Counts

Providers' folic acid knowledge and practice:^{*}

- 42 % did not know the recommended folic acid dose
- Providers who take multivitamins are more than twice as likely to recommend multivitamins to patients
- Only half of providers aware of **50 % unplanned pregnancy rate**

^{*}Williams, et al. 2006. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1592153>

Get Motivated

- Folic acid works
- Taking folic acid: easy, inexpensive
- Folic acid counseling: easy, brief
- Documented need for women to increase consumption
- **50 percent of pregnancies are unplanned**

Successful Counseling Approaches

- **Consistent** messaging by the entire health care team
- **Repetition** of the message at all appropriate opportunities
- **Message saturation**

Message Consistency

- Inservice entire team about folic acid messages
- Provide risk-based advice
- Include folic acid messages in new staff orientation



Message Repetition

- Annual exams
- Contraception visits
- Postpartum visits
- Gyn visits
- Prenatal visits
- Post-pregnancy loss
- Medical visits, especially if pertinent medication/condition



Message Saturation

- Annual exam reminders
- Telephone hold line messages
- Educational prescription pad with folic acid reminder for all childbearing age women
- Posters (change often, posters in patient bathrooms will be read!)
- Brochures (keep stocked, appropriate language for population seen)

Opportunities: Health Education

- Centering pregnancy
- Prenatal classes
- Breastfeeding classes
- Wellness classes
- Nutrition visits

Folic Acid Advocates

- **Review** folic acid messages and program with new staff
- **Maintain** stocks of educational materials
- **Identifies** new educational materials: posters, brochures, downloadables
- **Update** staff on new research about folic acid and NTDs

General Counseling Tips

- Be brief
- Don't assume other staff have asked a woman about folic acid use
- Encourage multivitamin with folic acid for all women
- Use pictures of food, food labels to educate about fortified and folate-rich foods

Why Multivitamins?

- Multivitamins ensure women obtain adequate folic acid every day
- Most women don't eat enough fortified and folate-rich foods
- The body absorbs folic acid better than folate in foods
- Multivitamins are inexpensive: \$.35/day
- Name brand or generics are fine

Multivitamin Counseling Tips



- Encourage women to remember to take multivitamins daily by linking them to another daily activity
- Reassure women that multivitamins will not increase hunger or cause them to gain weight

Top Food Sources

Fortified foods

- Cereals
- Bread
- Flour

Folate-rich foods

- Dried beans, cooked
- Green, leafy vegetables
- Broccoli, asparagus, greens, okra
- Orange juice

Awareness = Action

- Help women understand why folic acid supplementation is for **all** women of childbearing age
- Stress 70 % reduction in NTDs if all women took folic acid 0.4 mg daily
- Awareness=Action=Positive Outcomes

5 Reasons to Take Folic Acid

Many women believe they are not at risk for NTDs. Clarify these points:

- 95% of NTDs occur without family history
- NTDs not linked to older maternal age
- Eating well is **not** enough
- NTDs cannot be cured
- Not planning pregnancy? Neither were 50% of currently pregnant women

Identifying Women at Risk

- **Medical Conditions**
- **Medications**
- **Racial/ethnic groups**
- **History of NTD**

Medical Conditions

- **Diabetes:** 1% risk for NTD if poor control
- **Obesity** (BMI >30): doubles risk of NTD*

Increased risk depends on medication type used:

- **Epilepsy**
- **Arthritis**
- **Cancer**

* http://www.teratology.org/pubs/BDRA_obesity.pdf

Folic Acid-Inhibiting Medications

- Anti-seizure medications
- Anti-cancer drugs
- Antibiotics
- Sodium channel-blocking potassium sparing diuretics
- NSAIDS
- Oral hypoglycemics

Need for increased folic acid will depend on the specific medication used

<http://www.folicacid.net/chemical%20barriers%20printable.htm>

Demographics of NTD Risk

Most at risk:

- Hispanic
- Non-Hispanic White
- Non-Hispanic Black

NTDs more common:

Women of lower socio-economic status

History of NTDs

Increased risk for recurrence:

- Previous child with NTD
- Previous NTD-affected pregnancy
- Women with NTDs

Counseling Women with NTD History

- **Prescribe** 4.0 mg (4000 micrograms) folic acid, start 1 to 3 months before pregnancy, continue in 1st trimester
- Explain that increased dose reduces risk of repeat NTD pregnancy by 75%
- Advise not to increase dose of multivitamin, but to take prescription folic acid

Counseling Women with History of NTD

- Encourage proactive planning for future pregnancies
- Stress importance of reliable birth control method until ready for pregnancy
- Explain that even taking the increased dose of folic acid, as advised, does not guarantee a healthy baby

Goals for Health Care Settings

- Health care team understands benefits of folic acid to women and families
- Health care team implements comprehensive folic acid education program for **all** women of childbearing age
- Effectiveness of program is measured regularly, program altered as needed

Goals of Folic Acid Counseling

- Women are well-informed about the benefits of folic acid for their specific situation
- Folic acid myths are dispelled
- Women are aware of sources of folic acid/folate
- Women are empowered to make proactive choices about folic acid use

Folic Acid and Preconception Health

- Folic acid is integral to preconception and interconception health
- Folic acid provides a basis for understanding the importance of preconception health care

Everyone Wins!



- Optimizing health in the reproductive years:
- Better health for a woman throughout her life
 - Better health for any children she has, for their entire lives

Folic Acid Resources

Spina Bifida Association counseling tutorial,
 “ABCs of Folic Acid Counseling”

- > www.spinabifidaassociation.org
 - Programs / Services > Prevention > ABCs of Folic Acid Counseling

CDC resources (includes Spanish materials)

- > www.cdc.gov/ncbddd/folicacid/

Folic Acid Resources

FolicAcid.net

- > www.folicacid.net/

March of Dimes

- > www.marchofdimes.com

Association of Women’s Health, Obstetric and Neonatal Nurses

- > www.awhonn.org

GO GET FOLIC ACID NOW!

National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!

¡¡¡¡¡
ACIDO FOLICO
¡¡¡¡¡

**Preventing Birth Defects with Folic Acid:
 What You Need to Know, What You Can Do**

hosted by

FOLIC ACID NOW

ACIDO FOLICO AHORA

National Council on Folic Acid

Eileen S. Carlson




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!


Outline

- ✓ Folic Acid 101
- ✓ PRAMS data - Unintended Pregnancy and Multivitamin Use
- ✓ Folic acid counseling
- **Personal perspective**




National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!







National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!







National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!






National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!






National Folic Acid Awareness Week
 January 7 – 13, 2008
Do it for yourself, do it for the ones you love!





GO GET FOLIC ACID NOW!

National Folic Acid Awareness Week
January 7 – 13, 2008
Do it for yourself, do it for the ones you love!

GO ON! ACIDO FÓLICO AHORA!



SPINA BIFIDA ASSOCIATION

Questions and Answers

Thank you for attending this event.
Please complete the evaluation directly following the webcast.

Archives of the event are located at
<http://www.mchcom.com>
