

Appendix I

Materials

to

Use and Adapt

The following section of the appendices provides materials such as newsletter inserts, folic acid presentations, pre- and posttests, PSAs, and news releases to help you expedite your folic acid promotion plans. Please use and adapt these materials for your own program.

Sample Proclamation

(TITLE AND NAME) OF (COUNTY HEALTH UNIT NAME) PROCLAMATION IN SUPPORT OF FOLIC ACID AWARENESS WEEK, OCTOBER 26-NOVEMBER 2, 1996

WHEREAS, each year, about 130 babies in New York State and nearly 3,000 babies nationwide are born with serious birth defects of the brain and spine called neural tube defects (NTDs); and

WHEREAS, folic acid, a B vitamin, can reduce a woman's risk of having a child born with NTDs by up to 50 percent if taken BEFORE she becomes pregnant; and

WHEREAS, folic acid can be found in most multi-vitamin supplements and in certain foods, such as dark, leafy vegetables, and

WHEREAS, folic acid may also decrease a woman's risks of developing heart diseases, stroke, colon cancer and precancerous lesions of the cervix; and

WHEREAS, it is imperative that women in their child-bearing years eat foods high in folic acid and take multi-vitamins containing adequate amounts of the vitamin;

NOW, THEREFORE, I (official and title) do hereby proclaim the week of October 26-November 2, 1996, as Folic Acid Awareness Week in (locality).

News Release--*Change these materials to suit your needs.*

For Immediate Release or Embargo for Release Until Date and Time

CATCHY TITLE: "FOLIC ACID HELPS PREVENT CERTAIN BIRTH DEFECTS"

Media Contact: Name And Phone Number Of Media Contact

COMMUNITY, STATE--A woman may reduce her risk of having a child born with certain serious defects by at least 50 percent just by taking a B vitamin called folic acid, said (title and name) of the (agency name).

The U.S. Public Health Service recommends that all women of childbearing age (15-44 years old) consume 400 micrograms (0.4 milligrams) of folic acid each day. Folic acid is crucial for a woman and her baby *at least* one month before the women becomes pregnant and through the first month of her pregnancy, a time period when most women do not know yet that they are pregnant. Since half of the pregnancies in the United States are unplanned, all women of childbearing age should take 400 micrograms of folic acid daily..

How much folic acid does that mean to a typical woman? On average, a woman consumes half to two-thirds of the recommended amount of folic acid from her diet alone. To get 400 micrograms of folic acid daily, a woman can take a vitamin supplement containing folic acid, eat a breakfast cereal containing 100 percent of the daily value of folic acid, or increase her consumption of foods fortified with folic acid and foods rich in folate.

The following are examples of foods with folic acid: Orange juices from concentrate, cantaloupe, kiwi, strawberries, romaine lettuce, spinach, broccoli, all enriched cereals and grains, including some breakfast cereals, breads, pasta, and rice.

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FOR IMMEDIATE RELEASE
POINT 4 THE FUTURE:
FOLIC ACID PREVENTS BIRTH DEFECTS
County of Onondaga Department of Health

Media Contacts: Name, Phone Number And E-mail

Onondaga County, New York--Onondaga County Executive Nicholas J. Pirro announced today that the Onondaga County Health Department has launched Point 4 the Future, a community-wide folic acid education campaign to prevent spina bifida and other neural tube defects in children born in Onondaga County. "Onondaga County is setting a precedent in New York State by leading the way with this innovative and aggressive public health campaign to help reduce infant mortality and help ensure the birth of healthy babies," Pirro said.

According to Health Commissioner Lloyd F. Novick, M.D., M.P.H., this Health Department's health promotion campaign is a bold, community-wide approach to raise awareness about the critical role folic acid (also called folate) plays in the prevention of births defects of the brain and spinal cord.

The campaign's major objective is to encourage women of childbearing age (15 years to 44 years) to take 400 micrograms of folic acid everyday through a vitamin supplement containing folic acid, breakfast cereals containing 100% of the daily value of folic acid, or foods fortified with folic acid and foods naturally rich in folate. "If a woman is planning to have children some day, we want her to start folic acid today," Novick said. The Health Department will spread this message through the participation of businesses, health care providers and community organizations in Onondaga County.

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Consumers will see a variety of campaign activities to assist them with the identification, selection and purchase of foods and vitamin supplements containing folic acid. Point-of-purchase displays will be set up in local pharmacies and grocery stores, patient education packets will be available in physician offices, and folic acid fact sheets will be distributed at WIC and Family Planning clinics, community health fairs, and with medications dispensed at participating pharmacies. Food preparation and cooking demonstrations will be conducted in participating Wegmans and Hometown Markets.

The medical terms used to describe the two major birth defects reduced by adequate folic acid intake are anencephaly and spina bifida also known as neural tube defects (NTDs). Babies with anencephaly do not develop a brain and die shortly after birth. Babies with spina bifida do not properly develop their spinal cord and back bones. These babies may require a series of operations and other treatments throughout their lives. Some children may require leg braces, crutches, and other devices to help them walk, and many have learning disabilities.

An estimated 2,500 infants are born with neural tube defects in the U.S. each year. Approximately five cases occur in Onondaga County annually. The average total lifetime cost to society for each infant born with spina bifida is approximately \$532,000. This estimate is only an average, and for many children the total cost may be well above \$1,000,000.

Approximately 50 percent to 70 percent of neural tube defects could be prevented if women of childbearing age were to consume 400 micrograms of folic acid daily at *least* one month before conception through the first three months of pregnancy. The Public Health

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service recommends that women get 400 micrograms (0.4 milligrams) of folic acid daily *throughout their reproductive years* because half of all pregnancies in the United States are unplanned.

Point 4 the Future campaign has a folic acid information telephone line to answer public questions and refer callers to appropriate community resources. The number is (315) 435-8218.

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Media Advisory

Date

GEORGIA FOLIC ACID TASK FORCE PLANS A SPRING HEALTH CAMPAIGN

Media Contacts: Name, Number and E-Mail

WHAT: The Georgia Folic Acid Task Force desires participation of the media in the spring folic acid promotional campaign. The vitamin folic acid has been proven to prevent the serious birth defects of spina bifida and anencephaly. We need your support to get the folic acid message out to all women.

Reporters are invited to participate in campaign activities--to wear a folic acid t-shirt and walk with at Walk America Day, or pick up a brochure and product sample at a mall information table. We also have experts available for interviews to be broadcast during the two week campaign.

WHY: To reduce birth defects in Georgia by promoting the daily use of 400 micrograms of the vitamin folic acid by women capable of becoming pregnant.

WHEN The Georgia Folic Acid Task Force plans to launch a two week folic acid promotional campaign to run from **April 25, 1998** through **May 10, 1998**.

WHERE: **April 25th**, March of Dimes Walk America Day, will kick off the campaign. **May 2nd and 3rd** Task Force members and volunteers will set up information tables with brochures and folic acid-rich product samples at metro Atlanta shopping malls. Throughout these two weeks, the Task Force plans to provide information at youth sporting events and at any coinciding health fairs. **On May 10th**, Mother's Day, all teleflora flowers will be delivered with a folic acid message. A theme for the campaign will relate to Mother's day and Motherhood.

WHO: **Georgia Folic Acid Task Force**
 Association of Women's Health, Obstetric, and Neonatal Nurses
 Department of Human Resources, Division of Public Health, Office of Child Health, Family Planning, Nutrition, Women's Health, Perinatal Epidemiology and Pharmacy
 Georgia Chapter of American Academy of Pediatrics
 Georgia Chapter of March of Dimes
 Georgia Perinatal Association
 Georgia Pharmacy Association
 Spina Bifida Association of Georgia
 USDA, Food and Nutrition Services (WIC)

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Broadcast Public Service Announcements

For Use Month to Month/Year

Contact Name
Your Agency
Telephone Number

Title--Folic Acid & Birth Defects

30 SEC: A LARGE GLASS OF ORANGE JUICE. A BOWL OF FORTIFIED CEREAL.

THIS IS AN EASY BREAKFAST TO FIX. IT'S ALSO A HEALTHY WAY
FOR WOMEN TO START THEIR DAY. THAT'S BECAUSE THIS BREAKFAST HAS
LOTS OF A B-VITAMIN CALLED FOLIC ACID. WOMEN WHO TAKE FOLIC BEFORE
THEY BECOME PREGNANT MAY REDUCE THE CHANCES THEIR BABIES WILL BE
BORN WITH SERIOUS BIRTH DEFECTS. TO LEARN MORE ABOUT FOLIC ACID AND
HOW IT MAY PREVENT BIRTH DEFECTS, CONTACT THE (AGENCY NAME) AND
(PHONE NUMBER). THIS MESSAGE IS BROUGHT TO YOU BY THE (AGENCY NAME)
AND (STATION CALL LETTERS)

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20 SEC: A VITAMIN CALLED FOLIC ACID TAKEN BEFORE A WOMAN BECOMES PREGNANT CAN PROTECT BABIES FROM SERIOUS BIRTH DEFECTS. MOST MULTI-VITAMINS AND FOODS SUCH AS ORANGE JUICE, SPINACH, AND FORTIFIED BREADS AND CEREALS CONTAIN FOLIC ACID. FOR MORE INFORMATION, CONTACT THE (COUNTY HEALTH AGENCY NAME) AT (PHONE NUMBER). THIS MESSAGE COMES FROM THE (COUNTY HEALTH AGENCY NAME) AND (STATION CALL LETTERS).

10 SEC: A VITAMIN CALLED FOLIC ACID TAKEN BEFORE A WOMEN BECOMES PREGNANT CAN PROTECT BABIES FROM SERIOUS BIRTH DEFECTS. FOR MORE INFORMATION, CONTACT THE (AGENCY NAME) AT (PHONE NUMBER). THIS MESSAGE COMES FROM THE (AGENCY NAME) AND (STATION CALL LETTERS).

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For use month -month/year

Contact: Amanda Nestor
Onondaga County Health Department
(315) 435-3252

Title--Folic Acid

30 SEC. FOLIC ACID IS A B-VITAMIN THAT CAN PREVENT 50 TO 75% OF

BRAIN AND SPINAL CORD BIRTH DEFECTS. THESE BIRTH DEFECTS,

KNOWN AS NEURAL TUBE DEFECTS, OCCUR BETWEEN 18 AND 30

DAYS AFTER CONCEPTION, LONG BEFORE MOST WOMEN KNOW

THEY ARE PREGNANT. THE U.S. PUBLIC HEALTH SERVICE

RECOMMENDS THAT ALL WOMEN OF CHILD BEARING AGE SHOULD

CONSUME 400 MICROGRAMS OF FOLIC ACID, FOUND IN VITAMINS,

BREAKFAST CEREALS AND SOME FOODS, EVERYDAY. FOR MORE

INFORMATION ABOUT FOLIC ACID CALL THE ONONDAGA COUNTY

HEALTH DEPARTMENT AT 435-8218.

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20 SEC. FOLIC ACID IS A B VITAMIN THAT CAN PREVENT 50 TO 75% OF
BRAIN AND SPINAL CORD BIRTH DEFECTS. THE U.S. PUBLIC
HEALTH SERVICE RECOMMENDS THAT ALL WOMEN OF CHILD
BEARING AGE SHOULD CONSUME 400 MICROGRAMS OF FOLIC ACID,
FOUND IN MULTI-VITAMINS, BREAKFAST CEREALS AND SOME
FOODS, EVERYDAY. FOR MORE INFORMATION ABOUT FOLIC ACID
CALL THE AGENCY AT 435-8218.

10 SEC. THE U.S. PUBLIC HEALTH SERVICE RECOMMENDS THAT ALL
WOMEN OF CHILD BEARING AGE SHOULD CONSUME 400
MICROGRAMS OF FOLIC ACID, FOUND IN VITAMIN SUPPLEMENTS
AND FOODS, EVERYDAY TO PREVENT BIRTH DEFECTS. FOR MORE
INFORMATION ABOUT FOLIC ACID CALL THE AGENCY AT 435-8218.

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Newspaper Article

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Cox News Service

October 28, 1997, Tuesday 08:28 Eastern Time

SECTION: Domestic, non-Washington, general news item

HEADLINE: Parents Of Child With Spina Bifida Hope To Spread Word About Preventive Effects Of Folic Acid

Eds: With Folic Acid-box-cox. By Kevin Lamb

Dayton, Ohio--Justin Skinner took his first steps last week. He had just turned 2, and he needed the help of a walker, but his parents wouldn't have been any more excited if their first child had cartwheeled out of his crib at six months.

"We're not sure he'll ever walk independently," Janice Skinner says. But she also knows a lot of people with spina bifida as severe as Justin's never take steps at all. Her son was born with part of his spinal cord sticking out of his back, covered only by a mucous membrane.

"This is a really big step for him," says Justin's father, David. "Much more than we expected at one time."

The Skinners focus on the ordinary things Justin does, from putting puzzles together and using words in phrases to whipping a tennis ball across the room and smiling proudly. They know he'll never feel anything below his knees and he'll always need leg braces and a shunt to drain his brain of excess fluid and probably a catheter to empty his bowel and bladder, but they've learned to accept those as inconveniences rather than catastrophes.

What's harder to swallow is that Justin might have been born with a normal spine if someone had told his parents all women of childbearing age should take 400 micrograms a day of folic acid, a B vitamin. The U.S. Public Health Service issued that advisory in September 1992 as soon as research came out of that extra folic acid could prevent neural tube defects, including spina bifida but the warning resonated little more than a whisper into a windstorm.

"As far as we knew, we were doing everything right," David says. Janice saw her doctor regularly, ate a healthy diet and started taking prenatal vitamins as soon as her doctor said she was pregnant.

"But once you find out you're pregnant, it's too late," Janice says.

The embryonic spine develops in the first six weeks after conception, before many women know they are pregnant. The crucial time for folic acid supplements is from at least a month before conception to two months after.

“All women of childbearing age” should take the extra folic acid, stresses the public health advisory, because half of all U.S. pregnancies are unplanned and hardly anyone’s diet includes 400 micrograms (0.4 milligrams) of folic acid. The Skinners first remember hearing that when Justin was 2 months old.

Justin’s misfortune illustrates one of the biggest problems in American health care. Researchers produce valuable medical information every week, but it’s not filtering down from the labs and the journals to the lives it is meant to help. Public health experts say most people aren’t hearing, understanding or acting on basic information that can save lives, whether it’s the beneficial effect of regular aspirin or exercise on heart disease or of pap smears and prostate exams on cancer.

“We really have failed as an industry to address the prevention side,” interim CEO Duane Erwin of Franciscan Medical Center says of health education.

“We’ve got to be better communicators,” says president Bob Thimmes of the Miami Valley Health Improvement Council. “We’ve got to put it in language that John Q. Public on the street can understand.”

In the case of Justin and 4,000 American babies every year, the neural tube defect rate of one for every 1,000 births goes beyond frustration to “melancholia,” says Gail Noel, Dayton Division director of the March of Dimes Birth Defects Foundation. Half to three-quarters of those cases were preventable with folic acid, according to the U.S. Centers for Disease Control and Prevention.

“It’s one thing when people won’t do what you want them to do,” Noel said. “But this is a case of babies actually suffering because people don’t hear the word or don’t understand the word.”

The United States still has relatively high infant mortality rates for a developed country in spite of “better technology and better knowledge,” Noel said. “What we don’t have is a hearing or listening public.”

Spina bifida is the most common “complex birth defect,” says Dr. Adrian Sandler of the University of North Carolina, author of *Living with Spina Bifida: A Guide for Families and Professionals*. It happens when the neural tube doesn’t close properly and encase the spinal cord, which then pokes through the gap. The condition usually is accompanied by excess fluid in the brain, or hydrocephalus.

The Skinners had only vaguely heard of spina bifida or neural tube defects that Thursday morning of the routine ultrasound appointment three weeks before Janice’s due date. They

didn't even stay at the obstetrician's office for the doctor's report. But the phone call came to say they had an appointment that afternoon with an ultrasound specialist.

David remembers leaving the specialist's office, scared and stunned, with the words "neural tube defect" written on a card.

When Justin was born 10 days later, David said the bulge in his back "looked like the yolk of a sunny-side-up egg, but it was gray." Janice was not allowed to hold her baby, for fear of infecting him. She didn't get a good look at him until that night, when David showed her the tape from a friend's video camera.

Justin had a busy day. His first car ride was in the ambulance that took him from Miami Valley Hospital to The Children's Medical Center. Five hours after birth, he underwent surgery to put his spinal cord where it belonged. No one knew how much his nerves or brain had been damaged.

Two days later, more surgery left a shunt in his head to pipe the excess fluid to his abdomen, where it can be absorbed. He had five operations in his first six months, nine in his first two years.

The last two surgeries, in May and June, moved muscles from his groin, buttocks and abdomen to each thigh, where Justin's damaged nerves had been unable to generate muscles strong enough for him to walk. No one could promise the operation would allow Justin to walk, but it was his only chance.

The doctors would detach a muscle at one end and reattach it in the thigh area, keeping the nerves intact. They also cut his upper leg bones to better fit them into his abnormally shallow hip sockets.

He spent three months in a cast from his nipples to his toes, with his legs at about a 90-degree angle to keep them in his hip sockets. Justin could barely move. He couldn't fit in a car seat or a stroller. His parents don't know what they'd have done without that tip from someone in the local Spina Bifida Association about the kiddie car Justin could ride like a wheelchair.

In the past couple of months, Janice says, she has heard through the association of five or six families in the area giving birth to babies with spina bifida.

"You'd think it would be decreasing because we're trying to get the message out," she says.

"Trying," says David, "but not succeeding."

Their goal is for every gynecological practice in the Dayton area to encourage folic acid supplements for all their patients of childbearing age. Doctors' words carry more clout than those of friends and acquaintances, they say. But doctors are slow to change, they've learned

from seminars and literature on spina bifida.

The March of Dimes sends pamphlets to doctors, nurses, midwives, health clinics, even corporations, says director Noel. It holds health fairs for colleges, high schools and junior highs.

But the biggest breakthrough has been television commercials for orange juice, a leading dietary source of folic acid along with liver, beans, nuts, some dark green vegetables and fortified foods such as cereal and beginning Jan. 1, bread and pasta. The juice commercials mention folic acid and healthy babies.

“People figure if it’s on TV, it must be right,” Noel says.

Last summer, the CDC reported only 23 percent of women who’d been pregnant in the previous two years took daily supplements with enough folic acid. Only 30 percent of non-pregnant women were taking them when questioned. Two out of three women had heard of folic acid, but only 9 percent of them, 6 percent of the total, had heard about taking it before pregnancy.

“It’s just hard to get healthy people in their 20s to take supplements every day,” Janice Skinner says.

The Skinners hope the message doesn’t have to stress fear too heavily. They don’t want anyone telling Justin he’s a tragedy. When he thinks of how gloomy words and attitudes might discourage his son, he says he no longer thinks it’s too hokey to hear terms like “sight-challenged” or “special needs.”

Justin’s different, he says. Aren’t we all? “I know the people I work with don’t have to take their kids to physical therapy every week or neurological and orthopedic specialists every few months,” David says, “but when I look at Justin, I see a normal little boy.

(Kevin Lamb writes for the Dayton Daily News, Dayton, Ohio.)

Press Conference Announcement

September 24, 1996
ATTENTION: ALL MEDIA
POINT 4 THE FUTURE

PRESS CONFERENCE ANNOUNCEMENT

- WHAT: Onondaga County Health Department Launches Major Folic Acid Public Health Education Campaign
- WHEN: Thursday, October 3, 1996
10:00 a.m.
- WHERE: John H. Mulroy Civic Center
County Executive Suite Conference Room
14th Floor
- WHO:
- * Nicholas J. Pirro, County Executive
 - * Lloyd F. Novick, MD, MPH, Commissioner of Health
 - * Onondaga County Medical Society, Representative
 - * Donna Parks, MS, Spina Bifida Clinic, Crouse Irving Memorial Hospital
 - * Beth Trunfio, Executive Director, March of Dimes Foundation
 - * Jim McLaughlin, Rph, President, Onondaga County Pharmaceutical Society
 - * Community General Hospital Representative

This press conference will announce the Onondaga County Health Department's Point 4 The Future folic acid educational campaign to prevent spina bifida and other neural tube defects. Point 4 The Future campaign includes a variety of activities that will be conducted in partnership with several local businesses and health care agencies during the next two years. Its major objectives is to educate women of the need to consume 0.4 mg (milligrams) of folic acid in their diet to reduce the risk of neural tube defects.

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Point 4 the Future

Folic Acid Prevents Birth Defects

Onondaga County Health Department

Press Conference

October 3, 1996
10:00 a.m.

County Executive's Suite Conference Room
14th Floor - John H. Mulroy Civic Center

Speakers

1. Nicholas J. Pirro
County Executive
2. Lloyd F. Novick, M.D., M.P.H.
Commissioner of Health
3. Mary T. Wisner, MS, RN
Director of Nursing
Community General Hospital
4. Beth Trunfio, Executive Director
March of Dimes
5. Onondaga County Medical Society (Representative)

Following formal comments, the speakers and representatives from other organizations participating in Point 4 the Future campaign will be available for media interviews and photo opportunities in the back of the conference room.

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Newsletter Inserts

Pharmacy Newsletter

K-mart, Issue No. 5, Fall 1996

Protect The Health Of Your Unborn Child

Today and everyday seven children in the United States will be born with a devastating neural tube defect. The neural tube forms within the first month of pregnancy and develops into the baby's spine. The most common neural tube defect is spina bifida. This occurs when part of the baby's spinal cord and backbone does not develop properly. As a result, the baby may have paralyzed legs and develop bladder and bowel problems. Another more severe neural tube defect is anencephaly. In these cases, part of a baby's skull and brain are missing. These babies die shortly after birth.

Folic acid is a B-vitamin that can help to prevent neural tube defects. Because half of the pregnancies in the United States are unplanned and because the neural tube has already formed by the time most women realize that they are pregnant, all women of child bearing age (ages 15 to 45) should take 400 micrograms of folic acid on a daily basis even if they are not planning a family now.

To get enough folic acid daily, a woman can take a vitamin pill containing folic acid, eat a breakfast cereal fortified with 100 percent of the daily value or eat foods fortified with folic acid and rich in folate. Folic acid is found in enriched breads, breakfast cereals, grains, and beans. Foods that contain folic acid are leafy, dark green vegetables such as spinach and broccoli and orange juice from concentrate.

The Onondaga County Health Department, working with the county Pharmaceutical and Medical Societies is starting a local campaign to prevent neural tube defects from happening to unborn children. For any further information please contact your local pharmacy or the County Health Department at (315) 435-3252. Simple preventive steps can prevent devastating consequences later.

Electric Company Insert

The Pennyrite News

Volume 25, February 15, 1994, Number 08

The Spina Bifida Association of Kentucky (SBAK) has asked Pennyrite Rural Electric to share this important information with its employees.

“The Spina Bifida Association of Kentucky is proud to introduce “Project Healthy Babies.” This project is a statewide public health service campaign encouraging childbearing age women to take folic acid, a B-vitamin that reduces the chance of spina bifida, a common and serious birth defect. Recent studies confirm that women who take 400 micrograms (0.4 milligrams) of folic acid, on a daily basis before they become pregnant, can reduce their chances of having a child with spina bifida by up to 75%. Folic acid can be found in vitamin supplements containing folic acid and a variety of foods”.

In Kentucky, the number of newborns with spina bifida is double the national amount. Since almost half of all pregnancies are unplanned, and because spina bifida occurs within the first 26 days after conception, all women of childbearing age should take a daily multi-vitamin or supplements containing folic acid to be sure they get the necessary amount each day. If you have any questions, please call the Spina Bifida Association of Kentucky at (502) 637-7363.

Newspaper Insert

Project Healthy Babies

Folic Acid Cuts Risk of Spina Bifida

Spina bifida is a disabling birth defect that results when the baby's spine cord and backbone cannot form properly during the first month of pregnancy. In many cases, a thin balloon-shaped sac develops outside the back that exposed the spinal cord and nerves. Today, more than 90 percent of spina bifida babies survive; but of those surviving, many have a range of physical challenges, from paralysis and severe bowel and bladder disorders to learning disabilities.

In Kentucky, the occurrences of babies with this defect is double the national average--2 per 1,000. With the support of Kosair Charities, the Spinal Bifida Association of Kentucky (SBAK) has launched "Project Healthy Babies" (PHB) to educate Kentucky on the prevention of spina bifida.

Since nearly 50 percent of pregnancies in the United States are not planned, it is vital that all women of childbearing age consume the recommended 400 micrograms (0.4 milligrams) of folic acid daily to reduce their chance of having a baby with spina bifida by up to 75%. Folic acid is a B-vitamin which can be found in vitamin supplements containing folic acid and a variety of foods such as green leafy vegetables, liver, beans and orange juice. To prevent these birth defects women must get enough folic acid daily one to two months before conception and through the first three months of pregnancy.

The SBAK is committed to promoting the prevention of spina bifida and to enhancing the quality of life of all those affected.

For more information on the SBAK, spina bifida, or folic acid, call (502) 637-7363.

Folic Acid Curricula

Letter to the Educators

In southwest Virginia, the folic acid promotion program partnered with the school board to incorporate lessons about folic acid in health, biology or nutrition classes. In addition, they designed a small pre-and posttest for the school children to evaluate the lessons effectiveness.

DATE

Dear Educator,

Your class has been chosen by the school board to teach, by the **end of NOVEMBER**, a very critical lesson on **Folic Acid**. It is the goal of the Perinatal Coordinating Council for Region I to reduce the number of babies born with birth defects. The B-vitamin, folic acid, can prevent some birth defects. Not in the last 30 years have we had a more significant opportunity **to prevent 50 to 70 percent of birth defects of the spine and brain.**

Since **southwest Virginia has extremely high rates of these types of birth defects** (up to 6 times the state and national rates), you play an integral part by teaching this important message. By teaching this lesson, we will be given the opportunity to do something about this terrible incidence of birth defects.

If you could incorporate this lesson into your nutrition, health or biology class **before the end of NOVEMBER, 1997**, when the follow up survey is completed in December, 1997, more than 24% (as reported in January, 1997, survey) of women of childbearing age should know about the benefits of folic acid. Please help...

“Spread the word: Folic Acid prevents birth defects.”
Thanks for your assistance. For more information contact:

Contact Name
Address
Phone Number
E-mail

Address outline for Folic Acid Education Speech

This could be adapted for a variety of audiences.

- I. Introduction (This will be based on the age, education, and background of the group. Some of this information can be excluded and some can be spoken about in more detail.) A series of questions may be asked to emphasize the fact that they could help prevent this birth defect not only by educating themselves but educating someone else as well.
 - Do you know someone with spina bifida?*
 - Do you know someone with special needs?*
 - Do you know of someone who is planning to get pregnant?*
 - Do you know someone who could get pregnant?*
- II. About Neural Tube Defects
 - A. Three kinds
 1. Anencephaly - 35% of NTDs
 2. Encephalocele - 5% of NTDs
 3. Spina Bifida - 60% of NTDs
 - B. Living with NTDs--30 years ago babies died--now most survive
- III. Spina Bifida
 - A. Three kinds of varying disabilities--spina bifida occulta, meningocele, and myelomeningocele
 - B. Range of problems-- learning disabilities, bowel and bladder problems, and hydrocephalus
 - C. CDC estimates 3-400,000 cases worldwide; nationally 1 case per 1,000 births
 - D. Causes--environmental and genetic; all women at risk; 50% pregnancies unplanned
- IV. Folic Acid
 - A. B-Vitamin needed at least one month before pregnancy through the first three months
 - B. 400 micrograms (0.4 milligrams) daily for all childbearing age women
 - C. How can women get enough
 1. Vitamin supplements containing folic acid
 2. Foods fortified with 100% of the daily value
 3. Fortified foods and food s rich in folate
- V. Your Folic Acid Promotion Program
- VI. Your organization
 - A. Mission and history of organization
 - B. Uses and resources of organization
 - C. Funding basis of your organization and folic acid promotion program: bingo; grants; donations; fund-raisers

Delivering A Speech

1. **Preparation**
 - a) Know your material
 - b) Be rested
 - c) Don't eat much prior to the presentation
 - d) Get psyched up.

2. **Check the Arrangements**
 - a) Where you are sitting
 - b) The sound system
 - c) The lights
 - d) Your equipment including visual aids.

3. **Giving the Speech**
 - a) Be introduced briefly
 - b) Move quickly into the speech; take charge
 - c) Lose yourself in your talk
 - d) Keep good eye contact with your audience
 - e) Use your whole body to communicate
 - f) Read your audience--don't leave them.
 - g) Use variety in pace and timing.
 - h) Feel what you are saying (and so will the audience).

4. **Notes** -- If you choose to use them, use big print: one-sided note cards or paper sheets. Number them in order. Don't study or look at them before the speech or until after introductions. You want to talk to your audience -- not your notes!

Speaking Tips

1. *COMMIT YOURSELF.* Practice. Preparation eliminates fear and embarrassment.
2. *ANALYZE YOUR AUDIENCE.* What would you want to hear?
3. *ORGANIZE YOUR THOUGHTS.* Talk with your audience--not at them.
4. *THINK SIGHT.* Dress appropriately. Eye contact and posture are important.
5. *PRACTICE! PRACTICE!* Rehearse before a mirror with a tape recorder.
6. *RELAX.* Use visualization techniques to see, hear, and feel a dynamic speaking experience.
7. *HAVE FUN.* Visualize yourself being congratulated. Know you have made a difference.

NTD Quiz for Audience from the Spina Bifida Association of Kentucky

Circle the best answer:

1. What is spina bifida?
 - a. A birth defect
 - b. A food
 - c. An opening in the spine
 - d. Both a and c

2. Can a B-vitamin reduce the risk of spina bifida?
 - a. Yes
 - b. No
 - c. A B-vitamin reduces the risk of having a baby with spina bifida by up to 75%.

3. Can you catch spina bifida?
 - a. Yes, by germs in the air
 - b. No
 - c. Yes, by not washing your hands

4. Children with spina bifida may be:
 - a. In a wheelchair
 - b. Have braces for their legs
 - c. Just like ME
 - d. All of the above

5. Do you know someone that could have a baby?
 - a. My mother
 - b. An aunt
 - c. A neighbor/a teacher
 - d. All of the above

6. Would you help *your program's name* by teaching the women you know to take a multi-vitamin regardless of whether they are planning to have a baby?
 - a. Yes
 - b. No

Draw a line to the best answer

1. Spina bifida
 2. Neural tube defect
 3. Folic acid
 4. Cereals
 5. Orange juice
- a. a source of folic acid
 - b. a B vitamin that is found in fortified foods and vitamins
 - c. a birth defect of the spine
 - d. birth defects of the brain and spine

Fact Sheet

This fact sheet can be adapted and used as a reference for volunteers at health fairs or at folic acid tables in malls. It may also be adapted and used to pass out to those persons who are interested in learning more about your campaign.

Thank you for volunteering!

The purpose of this educational table is to educate women of childbearing age on the importance of consuming 400 micrograms of folic acid everyday. This, in turn, will reduce the risk of their unborn children developing spina bifida by 50%-75%.

POSSIBLE QUESTIONS:

What is spina bifida and anencephaly?

Spina bifida and anencephaly are birth defects that occur in the first four weeks of pregnancy, before most females know that they are pregnant. Since 50% of pregnancies are unplanned, it is important to include 400 micrograms of folic acid in every childbearing age women's diet.

Spina Bifida occurs when the lower end of the neural tube fails to close. Thus, the spinal cord and back bones do not develop properly. Sometimes, a sac of fluid protrudes through an opening in the back, and a portion of the spinal cord is often contained in this sac. Paralysis of the infant's legs, loss of bowel and bladder control, water on the brain (hydrocephalus), and learning disabilities are among the disabilities associated with spina bifida. Eighty to ninety percent of infants born with spina bifida live. Despite varying degrees of disability, many lead successful and productive lives.

Anencephaly is a fatal condition in which the upper end of the neural tube fails to close. In these cases, the brain either never completely develops or is totally absent. Pregnancies affected by anencephaly often result in miscarriages. Infants who are born alive die very soon after birth.

What is folic acid and where can I get it?

Folic acid is a B-vitamin. The recommended amount to prevent spina bifida and other neural tube defects is 400 micrograms (0.4 milligrams) of synthetic folic acid daily. This can be consumed in three ways:

- 1) Most multivitamins contain 400 micrograms (0.4 mg) of folic acid. Vitamin supplements containing folic acid can be bought at grocery, pharmacy, or discount stores that sell vitamins.

2) Breakfast cereals fortified at 100% of the daily value of folic acid per serving. Total, Product 19, Cheerios Plus and Smart Start are some of these types of cereal products.

3) Foods fortified with folic acid (all enriched cereal grain products such as enriched pasta, rice, bread and cereal) in addition to a healthy diet. Foods rich in folate are green leafy vegetables, orange juice from concentrate, fortified cereals, liver and other foods.

Who Can Have A Baby With An NTD In The United States?

60 million women are of childbearing age in the United States; all those who are capable of becoming pregnant are at risk for having an NTD-affected pregnancy. It is not possible to predict which women will have a pregnancy affected by an NTD. 95 percent of NTDs occur in women with no personal or family history of NTDs. However, some risks factors are known:

- C An NTD-affected pregnancy increases a woman's chance to have another NTD-affected pregnancy approximately twenty times
- C Maternal diabetes
- C Anti-seizure medication use
- C Obesity
- C High temperatures in early pregnancy, fevers and hot tub use for example
- C Race/ethnicity (NTDs are more common among white women than black women and more common among Hispanic women than non-Hispanic women)
- C Lower socio-economic status.

Can Women Get Too Much Folic Acid?

Folic acid has no known toxic level. If you were to eat a bowl of fully fortified cereal (100 - 400 micrograms), take 400 micrograms (0.4 milligram) folic acid supplement, and eat foods rich in folate, women of reproductive age would not have a problem with too much folic acid. Even in very high amounts folic acid is non-toxic. Nevertheless, it is recommended that women consume no more than 1,000 micrograms of synthetic folic acid a day. Very large amounts of folic acid have been found to hide the ability to quickly diagnose a vitamin B-12 deficiency, a sign of pernicious anemia. This disease primarily affects the elderly population and in some cases can lead to neurological damage. Today, doctors can use a simple definitive test to check for a B-12 deficiency.

Are Women Getting Enough Folic Acid?

Even though there are several ways to get 400 micrograms (0.4 milligram) of folic acid every day, two thirds of women in the United States do not consume adequate amounts of folic acid.

What are the costs associated with NTDs?

The average total lifetime cost to society for each infant born with spina bifida is approximately \$532,000 per child. This estimate is only an average, and for many children the total cost may be well above \$1,000,000.

Are there other health benefits with folic acid?

High levels of the amino acid homocysteine are independently associated with an increased risk of heart disease and stroke. It has been shown that taking folic acid lowers homocysteine levels in both men and women, but it is not yet known whether folic acid supplementation also lowers the risk of heart disease and stroke.

What is the Georgia National Task Force? (Adapt this for your program)

A statewide educational campaign designed to educate women on the importance of folic acid for preventing spina bifida. We do need help, so influence people to fill out the little "HELP" sheet.

Some things you can mention to interested parties:

- * All Tel-A-Flora flowers will be delivered with a folic acid message on Mother's Day*
- * Information booths will be set up in Atlanta area shopping malls, sporting events, and schools*

TABLE CONTENTS:

framed posters; brochures

HELP wanted & folic acid volunteer and information fact sheet

sources of folic acid fact sheet

folic acid supplement bottle

pictures of children with spina bifida and agency brochure

Training Kit

Letter for Health Care Providers Receiving a Training Kit

YOUR AGENCY
 YOUR ADDRESS
 YOUR PHONE AND FAX NUMBERS
 YOUR E-MAIL ADDRESS

Date

Dear Health Care Professional:

In *your city/county/state*, healthy mothers and babies are our highest priority. By educating all women about the necessity of folic acid for a healthy pregnancy, we can help improve the health of your *city's/county's/state's* children.

With this in mind, we are pleased to present you with “The Complete Trainer’s Guide on the Role of Folic Acid in Preconceptional Nutrition.” This comprehensive kit focuses on the importance of increasing the intake of folic acid (a B-vitamin) by all women who can become pregnant. The risk of birth defects of the spine and brain, called neural tube defects (NTDs-- spina bifida and anencephaly) is greatly reduced when 400 micrograms (0.4 mg) of folic acid is included daily in every woman’s diet.

Produced by _____, this kit contains all the necessary elements you will need to educate your clients, your peers, or the public about folic acid. With input and guidance from *your partners, your group* has worked very hard to ensure that you will feel confident educating *your city's/county's/state's* citizens about the importance of folic acid.

Included in the kit is a Registration and Feedback card. Please take the time to complete this short response card and return it promptly. We welcome any additional comments you have to offer.

We hope that you will use this tool to its full capacity. The health of our future children rests in your efforts today. Should you need additional information, please contact _____, *title, address, phone number*.

Sincerely,
Your name
Your title

Slide Show for Health Care Providers

Texas Department of Health
Texas NTD Project
1100 W. 49th Street
Austin, Texas 78756

This slide show was developed to inform clinic staff and other health-care professionals about neural tube defects and the use of folic acid to reduce the risk of these birth defects. It is not intended as an educational/informational program for clients or school programs.

Reducing the Risk of Neural Tube Defects

(Slide Show Script)

<p>#1</p> <p>The spinal cord and brain develop in a fetus from the neural tube during the first month of pregnancy. Neural tube defects, or NTDs, are major birth defects of the brain and/or spinal cord which usually lead to death or disability.</p>	<p>What are neural tube defects (NTDs)?</p>
<p>#2</p> <p>The spinal cord and brain develop from a strip of cells running along the back of the embryo. Two to three weeks after conception, a groove appears in the center of what will be the baby's back.</p> <p>The groove deepens, and the edges of this strip gradually curl toward each other and fuse to form the neural tube. The neural tube later becomes the spinal cord and brain.</p> <p>The neural tube develops and closes in the fetus sometime between the 16th and 28th day after conception. In other words, as soon as a woman's period is a few days late, the neural tube is beginning to form.</p>	<p>Graphic of neural tube closing</p>

<p>#2A</p> <p>Normally, the brain and spinal cord are surrounded by cerebrospinal fluid, which is contained between membranous layers called the meninges.</p> <p>In NTD cases, the neural tube fails to close properly and an opening or lesion occurs. Often, the meninges or cerebrospinal fluid protrude through this opening.</p> <p>Prenatal screening and diagnostic testing can usually determine if a pregnant woman is carrying a baby with an NTD.</p>	<p>Graphic of the cerebrospinal fluid and meninges</p>
<p>#3</p> <p>The most common neural tube defects are spina bifida, anencephaly and encephalocele. Spina bifida accounts for over half of all NTDs.</p>	<p>Neural tube defects (NTDs)</p> <ul style="list-style-type: none"> * Spina bifida * Anencephaly * Encephalocele
<p>#4</p> <p>Spina bifida results when the neural tube remains open at the neck or back. In spina bifida, the meninges, the spinal cord and cerebral spinal fluid may be exposed or protrude through an open lesion of the spine. Spina bifida is treated by surgical closure of the defect at birth. Abnormalities of the spinal cord may result in motor paralysis, skeletal deformities, sensory loss, and bowel and bladder incontinence.</p>	<p>photo - spina bifida</p>
<p>#5</p> <p>Anencephaly accounts for about 35% of all NTDs. Anencephaly occurs when the neural tube remains open at the level of the cranium, resulting in the partial or complete absence of the brain and incomplete development of the skull. Babies born with anencephaly are either stillborn or die shortly after birth.</p>	<p>photo - anencephaly</p>

<p>#6</p> <p>Encephalocele accounts for less than 5% of all NTDs. In encephalocele, part of the brain or meninges protrudes through the skull. This birth defect is usually fatal, but survival is possible with small lesions and early surgery. Cognitive, motor, and sensory impairments can result from this malformation.</p>	<p>photo - encephalocele</p>
<p>#7</p> <p>The definite cause or causes of NTDs are unknown. They are thought to occur through an interaction of genetic and environmental factors.</p> <p>Some factors associated with an increased risk of NTDs include:</p> <ul style="list-style-type: none"> * A previous NTD-affected pregnancy; * Women with a close relative who had had an NTD; * Women or their partners who themselves have an NTD; * Race or ethnicity (In the U. S., NTDs are more common among white women than black women and more common among Hispanic women than non-Hispanic women); * Maternal insulin-dependent diabetes; * Use of anti-seizure medication such as valproic acid or carbamazepine; * Lower socio-economic status; * Lower educational level; * Obesity; * Exposure to high temperatures in early pregnancy. <p>Women with a low family income and a low educational level may eat less nutritious foods and their lifestyle may expose them to environmental hazards. Although some people suspect exposure to chemicals may be a risk factor, scientific data are lacking. This is an area that needs further investigation.</p>	

<p>#8</p> <p><i>The Texas Department of Health became very alarmed about the rate of NTDs when three babies with anencephaly were born in a 36-hour period in Cameron County. A 1992 investigation of this NTD cluster found that the average NTD rate for Cameron County for the years 1986 to 1989 was 14.6 per 10,000 live births. For the years 1990 and 1991, it was 26.8 per 10,000. During the 80's, the average U.S. rate was approximately 8 per 10,000 live births. This is only an estimation, however, because many states do not have formal birth defects monitoring systems.</i></p>	<p>Bar chart</p>
<p>#9</p> <p>Studies suggest that women who consume 400 to 800 micrograms of folic acid both before conception and during early pregnancy can reduce their risk of having a child with an NTD.</p>	<p>photo of woman and child</p>
<p>#10</p> <p>In the September 11, 1992, issue of the Mortality and Morbidity Weekly Report, the Centers for Disease Control and Prevention (known as CDC) published a recommendation that all women capable of becoming pregnant should consume 400 micrograms of folic acid each day.</p>	<p>CDC Recommendation</p> <p>All women of childbearing age in the United States who are capable of becoming pregnant should consume 400 micrograms (0.4 mg) of folic acid per day for the purpose of reducing their risk of having a pregnancy affected with spina bifida or other NTDs.</p>
<p>#11</p> <p>Daily consumption of 400 micrograms (0.4 milligrams) of folic acid prior to conception is important because NTDs occur in the first month of pregnancy, before most women know they are pregnant. Since over 50% of pregnancies in the United States are unplanned, it is important that all women capable of becoming pregnant consume enough folic acid.</p>	<p>photo of women seated at table outside</p>

<p>#12 Total folic acid consumption should be less than 1 milligram per day, except under the supervision of a physician. The effects of high intake may include the masking of a vitamin B₁₂ deficiency.</p>	<p>CDC Recommendation (continued) Because the effects of high intakes do include complicating the diagnosis of vitamin B12 deficiency, care should be taken to keep total folate consumption under 1 mg per day, except under the supervision of a physician.</p>
<p>#13 Women who have had a prior NTD-affected pregnancy have a 2 to 4% risk of having a subsequent affected pregnancy. Their risk is about 25 times higher than a woman who has not had a prior NTD-affected pregnancy. The U.S. Public Health Service Recommends consulting with a doctor about taking a much larger amount of folic acid everyday, 4000 micrograms (4 milligrams), one month before conception and throughout the first three months.</p>	<p>CDC Recommendation (continued) Women who have had a prior NTD affected pregnancy are at risk of having a subsequent affected pregnancy.</p>
<p>#14 If all women follow these recommendations, each year the incidence of NTDs in the United States would be reduced by about half to two-thirds, from 4,000 to 2,000 or 1,500.</p>	<p>photo of woman and man with physician</p>
<p>#15 Women who have not had a prior NTD-affected pregnancy can meet the recommendation in various ways. The first way is to take a daily vitamin supplement that contains 400 micrograms (0.4 milligrams) of folic acid. Another way is to eat breakfast cereals containing 100% of the daily value of folic acid. A third way is to eat foods fortified with folic acid and rich in folate.</p>	<p>Ways to get folic acid * Vitamin supplements with folic acid * Breakfast Cereals containing 100% of the daily value of folic acid * Foods fortified with folic acid and rich in folate</p>

<p>#16</p> <p>Vitamin Supplements containing folic acid can be purchased in supermarkets, drug stores, and discount stores. The least expensive multivitamins are generally the store brand-- for example, HEB One Daily, Target Multiple Vitamins, Albertson's Multivitamins, Walgreen Multiple Vitamins, Eckerd Vitamin-a-Day, and Walmart's Spring Valley One Daily Multiple Vitamins.</p> <p>Women should be cautioned to take only one vitamin pill each day and to store the supplements out of the reach of children.</p>	<p>photo of woman buying vitamins.</p>
<p>#17</p> <p>Some foods that are high in folate include dried beans and peas, liver, spinach and other leafy greens, oranges, grapefruit, peanuts and sunflower seeds. Since the average American woman's diet includes only about 200 micrograms (0.2 milligrams) of folic acid, women who want to get an adequate amount of folic acid from food alone will need to plan their meals carefully.</p>	<p>photo of foods high in folic acid</p>
<p>#18</p> <p><i>This TDH client pamphlet was developed for clients with a low reading level. It suggests simple ways that women can include more foods with folic acid in their diet.</i></p>	<p><i>photo of pamphlet cover</i></p>
<p>#19</p> <p>The tips offered include:</p> <p>Eat five or more servings of fruits and vegetables everyday.</p> <p>When you cook vegetables, steam them or cook them in a small amount of water.</p> <p>Do not overcook them.</p>	<p>photo of inside of pamphlet</p>
<p>#20</p> <p>Drink orange juice every day or several times a week.</p>	<p>photo of woman drinking orange juice</p>

<p>#21 Choose enriched cereal grain products.</p>	<p>photo of whole grain bread, pasta, rice</p>
<p>#22 Choose cereals that have folic acid added to them. Total, Product 19, and Just Right contain 100% of the U.S. RDA for folic acid in one serving. Many cereals contain 25% of the U.S. RDA for folic acid in one serving.</p>	<p>photo of enriched cereal</p>
<p>#23 Eat dried beans several times a week. Serve them as a main dish instead of meat or add them to soups, salads and casseroles.</p>	<p>photo of prepared bean dish</p>
<p>#24 Eat fruits and vegetables raw. Add fresh vegetables such as spinach, broccoli or romaine lettuce to tossed salads.</p>	<p>photo of fruit and vegetable platters</p>
<p>#25 Women should be encouraged to follow the "Food Guide Pyramid" which includes the recommendation to eat two to four servings of fruits and three to five servings of vegetable every day.</p>	<p>photo of food pyramid</p>
<p>#26 A woman is more likely to follow the suggestions if they are tailored to her usual dietary customs and lifestyle. When suggesting behavior or dietary changes, consider ethnic preferences, afford ability, and lifestyle factors such as eating out, packing lunches for work, and amount of time available for cooking. Also consider cooking skills and availability of meal preparation equipment like a stove, microwave and refrigerator.</p>	<p>photo of family eating</p>
<p>#27 If the client is on WIC, ask her if she is eating the fortified breakfast cereals and check to see if they contain 25% or more of the RDA for folic acid. Ask her if she drinks orange or grapefruit juice and eats dried beans and peas or peanut butter.</p>	<p>photo of family eating</p>

<p>#28</p> <p>Near the end of the counseling session, it is helpful to ask the client what changes she plans to make to her diet in the upcoming weeks. Goal setting and reinforcement are key elements in behavior change. A client is going to be more successful if the initial behavior changes are limited to one or two, somewhat easy-to-achieve steps. Further desired changes can be discussed in future counseling sessions once the client has demonstrated success in achieving initial goals.</p>	<p>photo of woman being counseled.</p>
<p>#29</p> <p><i>This second TDH brochure is written at a fairly high reading level. It was designed for use by health professionals in their counseling. This is for highly motivated women who want to get the right amount of folic acid from their foods. It includes tables of foods with the amount of folic acid per specified serving. A nutritionist or other health professional doing diet counseling may want to use these lists to do a quick check on how much folic acid a woman consumed in a 24-hour period.</i></p>	<p><i>photo of yellow pamphlet cover</i></p>
<p>#30</p> <p>A highly motivated woman may want to use these lists when planning her meals. The food table is perforated so she can tear this section off and take it to the grocery store to help her find foods high in folic acid.</p>	<p>photo of inside of yellow pamphlet</p>
<p>#31</p> <p>The folic acid that occurs naturally in food is not as well absorbed by the body as the folic acid from vitamin supplements and fortified cereals. No guidelines are available to tell us how much folic acid is absorbed from individual foods - overall absorption from food is estimated to be 50%. Scientific agreement on this issue will not occur until there are more research trials using dietary intervention.</p>	<p>photo of both sides of food table</p>

<p>#32</p> <p>The Food and Drug Administration has fortified enriched flour, bread, and other grain products with folic acid. While this level of fortification offers some protection, it will not maximize it. On average, women will increase their total folate consumption to about 300 micrograms per day, an amount still short of the recommended dosage.</p>	<p>photo of staple foods</p>
<p>#33</p> <p><i>In addition to promoting the consumption of folic acid to reduce the risks of NTDs, the Texas Department of Health is involved in two efforts aimed at identifying Texas babies with birth defects. These efforts will provide data about the incidence and distribution of NTDs, information that could take us closer to determining the causes of these defects.</i></p> <p><i>The first effort is the establishment of a birth defects registry. The Birth Defects Prevention Bill, signed into law on June 15, 1993, by Governor Ann Richards, authorized the Texas Department of Health to create the state's first system to identify and track major birth defects. The law funds the development of pilot surveillance projects in coastal and south Texas counties.</i></p>	<p><i>Texas map with birth defect area highlighted</i></p>
<p>#34</p> <p>There are two types of surveillance approaches - active and passive. A passive system relies on reporting from providers throughout the state.</p>	<p>Passive Surveillance</p> <ul style="list-style-type: none"> * Reports from facilities * Relies on existing data and reporting systems

<p>#35</p> <p>An active approach employs staff to go to hospitals, clinics and offices where a new case is likely to be diagnosed to collect the needed data. This approach is more effective in identifying the largest number of cases. The law requires the Texas program to use active surveillance methods. This program will give us accurate information on the incidence of birth defects and provide valuable data for investigations of the causes of the NTDs in Texas.</p>	<p>Active Surveillance</p> <ul style="list-style-type: none"> * Trained staff reviews records * Questions persons involved * Info recorded on standard forms
<p>#36</p> <p>The second Texas surveillance efforts focuses exclusively on neural tube defects. In October 1992, TDH received a five-year grant from CDC for expanded NTD surveillance, educational activities, folic acid intervention, and risk factor evaluation. These activities are being carried out in 14 counties along the Texas-Mexico border.</p> <p>Additionally, the Environmental Protection Agency, in cooperation with the Texas Air Control Board and the Texas Water Commission, plans to further investigate the environmental pollutants along the border to determine what types of contaminants the border population may be exposed to.</p>	<p>Cutaway map of 14 counties</p>

<p>#37</p> <p>The high incidence of NTDs identified in the Valley brought the importance of women's health-care issues to the forefront.</p> <p>In response, TDH has distributed free vitamins to women of child-bearing age in Cameron and Hidalgo Counties, mounted a statewide media campaign to promote the consumption of folic acid, and produced educational materials. Ongoing activities include the border surveillance and intervention project, studies to better understand risks for NTDs, and the birth defects registry.</p> <p>This is an example of how a very simple public health intervention can make a major impact on a public health problem.</p>	photo of mom and healthy baby
10/93	

Instructions for Administration of Pre- and Post-tests

1. The primary purpose of the pre- and post-tests is to evaluate the effectiveness of this presentation. The pretest gives us a measure of the listeners' knowledge base before they receive the information. The post-test measures their knowledge of the topic after the presentation. The difference between the pretest score and the post-test score measures the amount of knowledge transfer that has taken place.
2. Before the slide show, distribute the pretests and answer sheets and ask participants to record answers in the first column of the answer sheet. DO NOT check the answers to the pretest or discuss the questions. Instruct participants to keep their answer sheets. Collect all pretests before starting the slide show.
3. After the slide show and any discussion about the topic, ask participants to take the post-test and record their answers in the second column of the answer sheet. Have participants check the answers to their own post-tests. Go over each question and discuss any areas of interest or concern.
4. After checking the post-tests, read the answer key for the pretest so participants can check their pretests and record the number of correct answers for each test at the bottom of the answer sheet.
5. Collect all answer sheets and send them to: *Name, Texas Department of Health, 1100 W. 49th St. Austin, TX 78756*. Please include the name of the presenter, the date and location of the presentation.
6. We are interested in your feedback as a presenter. Please let us know how the slide show could be improved to better serve your needs.

Neural Tube Defects Pretest

provided by the Texas Department of Health

Select the best answer for each question.

1. Neural tube defects are major birth defects of:	<ul style="list-style-type: none"> a. the brain b. the spinal cord c. the lungs d. the brain and spinal cord
2. There are _____ main types of neural tube defects.	<ul style="list-style-type: none"> a. two b. three c. four
3. The neural tube develops in the fetus:	<ul style="list-style-type: none"> a. in the third month after conception b. between days 28 and 40 after conception c. between days 16 and 28 after conception
4. <i>Concerns about NTDs arose in Texas because of an unusually high number of _____ cases in Cameron County.</i>	<ul style="list-style-type: none"> a. spina bifida b. anencephaly c. encephalocele
5. A neural tube defect occurs when:	<ul style="list-style-type: none"> a. the neural tube doesn't grow long enough b. the neural tube is too big c. the neural tube doesn't close properly
6. Although the definite causes of NTDs are unknown, some factors associated with an increased risk include:	<ul style="list-style-type: none"> a. alcohol and drug abuse b. previous NTD-affected pregnancy c. intelligence
7. _____ are most at risk of having an NTD-affected pregnancy.	<ul style="list-style-type: none"> a. Asians or Pacific Islanders b. Anglo-Americans c. Mexican-Americans d. African-Americans
8. <i>Based on estimates, the rate of NTDs in Texas is _____ the rate for the U.S.</i>	<ul style="list-style-type: none"> a. lower than b. higher than c. the same as
9. Folic acid is:	<ul style="list-style-type: none"> a. a protein b. a mineral c. a B-vitamin
10. Women who should be counseled to consume folic acid include:	<ul style="list-style-type: none"> a. all women of childbearing age b. all women of childbearing age who are capable of becoming pregnant c. women who are planning a pregnancy

11. Women should consume less than _____ of folic acid each day, except under the care of their physician.	a. 400 micrograms (0.4 milligram) b. 800 micrograms (0.8 milligram) c. 1000 micrograms (1 milligram)
--	--

Indicate whether the following statements are true or false.

12. Anencephaly is usually fatal.	True	False
13. Most multivitamins contain 400 micrograms (0.4 milligrams) of folic acid.	True	False
14. Consuming adequate folic acid in the last trimester of pregnancy will reduce a woman's risk of having a baby with an NTD.	True	False
15. Good food sources of folic acid include fortified cereals, enriched cereal grain products, orange juice from concentrate, dried beans, liver, spinach and other leafy greens, peanuts and sunflower seeds.	True	False
16. Folic acid that is found in foods is as easily absorbed by the body as the folic acid in vitamin supplements and fortified cereals.	True	False
17. Most women get enough folic acid from food alone, without paying much attention to their diet.	True	False
18. The folic acid content of a food can vary, depending on how long it is cooked and whether it's fresh, frozen or canned.	True	False
19. To prevent NTDs, a women needs 400 micrograms of synthetic folic acid in addition to a healthy diet.	True	False
20. Consuming enough folic acid before and during pregnancy can reduce the risk of NTDs by about half.	True	False

Neural Tube Defects Post-test

Select the best answer for each question.

1. Concerns about NTDs arose in Texas because of an unusually high number of _____ cases in Cameron County.	<ul style="list-style-type: none"> a. spina bifida b. anencephaly c. encephalocele
2. Based on estimates, the rate of NTDs in Texas is _____ the rate for the U.S.	<ul style="list-style-type: none"> a. lower than b. higher than c. the same as
3. Neural tube defects are major birth defects of:	<ul style="list-style-type: none"> a. the brain b. the spinal cord c. the lungs d. the brain and spinal cord
4. The neural tube develops in the fetus:	<ul style="list-style-type: none"> a. in the third month after conception b. between days 28 and 40 after conception c. between days 16 and 28 after conception
5. There are _____ main types of neural tube defects.	<ul style="list-style-type: none"> a. two b. three c. four
6. A neural tube defect occurs when:	<ul style="list-style-type: none"> a. the neural tube doesn't grow long enough b. the neural tube is too big c. the neural tube doesn't close properly
7. _____ are most at risk of having an NTD-affected pregnancy.	<ul style="list-style-type: none"> a. Asians or Pacific Islanders b. Anglo-Americans c. Mexican-Americans d. African-Americans
8. Although the definite causes of NTDs are unknown, some factors associated with an increased risk include:	<ul style="list-style-type: none"> a. alcohol and drug abuse b. previous NTD-affected pregnancy c. intelligence
9. Folic acid is:	<ul style="list-style-type: none"> a. a protein b. a mineral c. a B-vitamin
10. Women should consume less than _____ of folic acid each day, except under the care of their physician.	<ul style="list-style-type: none"> a. 400 micrograms (0.4 milligram) b. 800 micrograms (0.8 milligram) c. 1000 micrograms (1 milligram)

11. Women who should be counseled to consume folic acid include:	<ul style="list-style-type: none"> a. all women of childbearing age b. all women of childbearing age who are capable of becoming pregnant c. women who are planning a pregnancy
--	--

Indicate whether the following statements are true or false.

12. Consuming adequate folic acid in the last trimester of pregnancy will reduce a woman's risk of having a baby with an NTD.	True	False
13. Consuming enough folic acid before and during pregnancy can reduce the risk of NTDs by about half.	True	False
14. To prevent NTDs, a women needs 400 micrograms of synthetic folic acid in addition to a healthy diet.	True	False
15. Most women get enough folic acid from food alone, without paying much attention to their diet.	True	False
16. Good food sources of folic acid include fortified cereals, enriched cereal grain products, orange juice from concentrate, dried beans, liver, spinach and other leafy greens, peanuts and sunflower seeds.	True	False
17. Folic acid found in foods is as easily absorbed by the body as the folic acid in vitamin supplements and fortified cereals.	True	False
18. The folic acid content of a food can vary, depending on how long it is cooked and whether it's fresh, frozen or canned.	True	False
19. Most multivitamins contain 400 micrograms (0.4 milligrams) of folic acid.	True	False
20. Anencephaly is usually fatal.	True	False

Answer Sheet

Pretest	Post-test
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____
11. _____	11. _____
12. _____	12. _____
13. _____	13. _____
14. _____	14. _____
15. _____	15. _____
16. _____	16. _____
17. _____	17. _____
18. _____	18. _____
19. _____	19. _____
20. _____	20. _____
Pretest # correct _____	Pretest # correct _____
Post-test correct _____	Post-test correct _____

Answer Key to Pretest

Select the best answer for each question.

1. Neural tube defects are major birth defects of:	<ul style="list-style-type: none"> a. the brain b. the spinal cord c. the lungs d. the brain and spinal cord
2. There are _____ main types of neural tube defects.	<ul style="list-style-type: none"> a. two b. three c. four
3. The neural tube develops in the fetus:	<ul style="list-style-type: none"> a. in the third month after conception b. between days 28 and 40 after conception c. between days 16 and 28 after conception
4. <i>Concerns about NTDs arose in Texas because of an unusually high number of _____ cases in Cameron County.</i>	<ul style="list-style-type: none"> a. spina bifida b. anencephaly c. encephalocele
5. A neural tube defect occurs when:	<ul style="list-style-type: none"> a. the neural tube doesn't grow long enough b. the neural tube is too big c. the neural tube doesn't close properly
6. Although the definite causes of NTDs are unknown, some factors associated with an increased risk include:	<ul style="list-style-type: none"> a. alcohol and drug abuse b. previous NTD-affected pregnancy c. intelligence
7. _____ are most at risk of having an NTD-affected pregnancy.	<ul style="list-style-type: none"> a. Asians or Pacific Islanders b. Anglo-Americans c. Mexican-Americans d. African-Americans
8. <i>Based on estimates, the rate of NTDs in Texas is _____ the rate for the U.S.</i>	<ul style="list-style-type: none"> a. lower than b. higher than c. the same as
9. Folic acid is:	<ul style="list-style-type: none"> a. a protein b. a mineral c. a B-vitamin
10. Women who should be counseled to consume folic acid include:	<ul style="list-style-type: none"> a. all women of childbearing age b. all women of childbearing age who are capable of becoming pregnant c. women who are planning a pregnancy

11. Women should consume less than _____ of folic acid each day, except under the care of their physician.	a. 400 micrograms (0.4 milligram) b. 800 micrograms (0.8 milligram) c. 1000 micrograms (1 milligram)
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Indicate whether the following statements are true or false.

12. Anencephaly is usually fatal.	True	False
13. Most multivitamins contain 400 micrograms (0.4 milligrams) of folic acid.	True	False
14. Consuming adequate folic acid in the last trimester of pregnancy will reduce a woman's risk of having a baby with an NTD.	True	False
15. Good food sources of folic acid include fortified cereals, enriched cereal grain products, orange juice from concentrate, dried beans, liver, spinach and other leafy greens, peanuts and sunflower seeds.	True	False
16. Folic acid found in foods is as easily absorbed by the body as the folic acid in vitamin supplements and fortified cereals.	True	False
17. Most women get enough folic acid from food alone, without paying much attention to their diet.	True	False
18. 14. To prevent NTDs, a women needs 400 micrograms of synthetic folic acid in addition to a healthy diet.	True	False
19. If a woman wants to get enough folic acid through the food she eats, she should consume between 400 and 800 micrograms of folic acid every day.	True	False
20. Consuming enough folic acid before and during pregnancy can reduce the risk of NTDs by about half.	True	False

Answer Key to Post-test

Select the best answer for each question.

1. Concerns about NTDs arose in Texas because of an unusually high number of _____ cases in Cameron County.	a. spina bifida b. anencephaly c. encephalocele
2. Based on estimates, the rate of NTDs in Texas is _____ the rate for the U.S.	a. lower than b. higher than c. the same as
3. Neural tube defects are major birth defects of:	a. the brain b. the spinal cord c. the lungs d. the brain and spinal cord
4. The neural tube develops in the fetus:	a. in the third month after conception b. between days 28 and 40 after conception c. between days 16 and 28 after conception
5. There are _____ main types of neural tube defects.	a. two b. three c. four
6. A neural tube defect occurs when:	a. the neural tube doesn't grow long enough b. the neural tube is too big c. the neural tube doesn't close properly
7. _____ are most at risk of having an NTD-affected pregnancy.	a. Asians or Pacific Islanders b. Anglo-Americans c. Mexican-Americans d. African-Americans
8. Although the definite causes of NTDs are unknown, some factors associated with an increased risk include:	a. alcohol and drug abuse b. previous NTD-affected pregnancy c. intelligence
9. Folic acid is:	a. a protein b. a mineral c. a B-vitamin
10. Women should consume less than _____ of folic acid each day, except under the care of their physician.	a. 400 micrograms (0.4 milligram) b. 800 micrograms (0.8 milligram) c. 1000 micrograms (1 milligram)

11. Women who should be counseled to consume folic acid include:	<p>a. all women of childbearing age</p> <p>b. all women of childbearing age who are capable of becoming pregnant</p> <p>c. women who are planning a pregnancy</p>
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Indicate whether the following statements are true or false.

12. Consuming adequate folic acid in the last trimester of pregnancy will reduce a woman's risk of having a baby with an NTD.	True	False
13. Consuming enough folic acid before and during pregnancy can reduce the risk of NTDs by about half.	True	False
14.14. To prevent NTDs, a women needs 400 micrograms of synthetic folic acid in addition to a healthy diet.	True	False
15. Most women get enough folic acid from food alone, without paying much attention to their diet.	True	False
16. Good food sources of folic acid include fortified cereals, enriched cereal grain products, orange juice from concentrate, dried beans, liver, spinach and other leafy greens, peanuts and sunflower seeds.	True	False
17. Folic acid found in foods is as easily absorbed by the body as the folic acid in vitamin supplements and fortified cereals.	True	False
18. The folic acid content of a food can vary, depending on how long it is cooked and whether it's fresh, frozen or canned.	True	False
19. Most multivitamins contain 400 micrograms (0.4 milligrams) of folic acid.	True	False
20. Anencephaly is usually fatal.	True	False

Answer Sheet to Pretest and Post-test

Pretest		Post-test	
1.	D	1.	B
2.	B	2.	B
3.	C	3.	D
4.	B	4.	C
5.	C	5.	B
6.	B	6.	C
7.	C	7.	C
8.	B	8.	B
9.	C	9.	C
10.	B	10.	C
11.	C	11.	B
12.	T	12.	F
13.	T	13.	T
14.	F	14.	T
15.	T	15.	F
16.	F	16.	T
17.	F	17.	F
18.	T	18.	T
19.	T	19.	T
20.	T	20.	T

Pretest # correct _____

Post-test # correct _____

Contact Information For Other Training Kits

Centers for Disease Control and Prevention (for health care providers)

National Center on Birth Defects and Developmental Disabilities
1600 Clifton Road, NE
MS E-86
Atlanta, GA 30333
ph: (404) 498-3800

Florida Department of Health (for health care providers)

10841 Little Rd.
New Port Richey, FL 34654-2533
ph: (813) 869-3900
fax: (813) 863-9734

Puerto Rico Department of Health (for health care providers)

Secretariat for Health Promotion and Prevention
Islandwide Folic Acid Campaign
911 Rochester Street
University Gardens
Rio Piedras, Puerto Rico, 00927-4812
ph: (787) 758-1836