

## **MCHB/ DHSPS January 10, 2006 Webcast**

### **Using the PPOR Approach to Implement New Policies and Programs**

JOHANNIE ESCARNE: Good afternoon. My name is Johannie Escarne in the Maternal and Child Health. On behalf of the division I would like to welcome you to this webcast titled "Innovative Strategies to Increase Folic Acid Awareness and Multivitamin Use". Before I introduce our moderator today, I would like to make some technical comments. Slides will appear in the central window and should advance automatically. The slide changes are synchronized with the speaker's presentations. You do not need to do anything to advance the slides.

You may need to adjust the timing of the slides to match the audio by using the slide delay control at the top of the messaging window. We encourage you to ask the speakers questions at any time during the presentation. Simply type your question in the white message window on the right side of the interface, select question for speaker from the dropdown menu and hit send. Please include your state or organization in your message so we know where you're participating from. These questions will be relayed onto the speakers periodically throughout this broadcast. If we do not have the opportunity to respond to your question during the broadcast, we'll email you afterwards. Again, we encourage you to submit questions at any time during the broadcast.

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Those of you who have selected accessibility features when you registered will see text captioning underneath the video window. At the end of the broadcast, the interface will close automatically and you'll have the opportunity to fill out an online evaluation. Please take a couple of minutes to do so. Your responses will help us with -- to plan future broadcasts in this series and improve our technical support. We're very pleased today to have a moderator and five speakers that will provide you with information regarding the importance of taking folic acid especially women of childbearing age. Social marketing strategies and education campaigns for health providers. Our moderator is Adriane Griffen the chair of the national council on folic acid. She'll introduce our presenters.

ADRIANE GRIFFEN: Thanks. Welcome, everyone, to the "Innovative Strategies to Increase Folic Acid Awareness and Multivitamin Use". This is one of many activities going on during this week, national folic acid awareness week. For more information on what is going on near you feel free to check out the national council on folic acid website. Without further adieu I would like to introduce all our speakers at once so we have the maximum amount of time for each presenter. Denise Lomuntad is the manager External Program Grants with the national office of the March of Dimes and works with the state chapters to pursue new funding opportunities and provide technical assistance in the management of grant-funded projects and holds a masters degree from American University and a Bachelor of Science in economics Villanova University. Welcome. Denise.

DENISE LOMUNTAD: Thank you.

ADRIANE GRIFFEN: Our next speaker is Anna Bess Brown the director of program services for the North Carolina chapter of the March of Dimes and received her Bachelor of Arts in English at Meredith College and her masters of public health at the University of North Carolina. She enjoys working with fabulous staff and volunteers throughout North Carolina. She lives in Raleigh with her husband and son. Linda Morgan is a registered pharmacist who received her degree from the University of North Carolina Chapel Hill and masters in business from western Carolina University. Since 2001 Linda has served as the western regional coordinator of the North Carolina folic acid campaign. As coordinator she's developed an implemented an ambassador program as well as healthcare provider education program for North Carolina and the programs are being replicated in other parts of the state as part of the North Carolina folic acid campaign. Welcome, Linda.

Our next speaker is Cynthia Chafin. She works with the State of Tennessee's Department of Health, March of Dimes Tennessee chapter and the MTSU Center for health and humans services. She has a master's degree in health promotion and education from Vanderbilt University and is an undergraduate degree and a certified health education specialist. She's a Tennessee native and lives in old hickory, Tennessee with her husband and two children. Our last but not least speaker is Elizabeth Jensen. She's been working within the Maternal and Child Health center in the statewide administrative level. Her current project is managing a grant for the March of Dimes Florida chapter that seeks to educate women about health issues. Miss Jensen is working with the Florida Department of Health as a key partner in the execution of the grant. She's collaborating with over 150

different agencies throughout the state to promote the activities of the grant. Welcome, Elizabeth.

So we are going to start with Denise's presentation first and for maximizing the time that each presenter has we'll ask each presenter to turn it over to the following speaker. That way we can allow the maximum time for the presenters. For the audience, we do want you to keep in mind that when you are asking questions and answers, please address your particular question to a particular speaker. Thank you and without further adieu I'll turn it over to Denise.

DENISE LOMUNTAD: I want to welcome everyone to the webcast and thank MCHB for the opportunity to present today. I'm Denise Lomuntad and I'll be setting the stage for the March of Dimes involvement in folic acid awareness and some of the recent grant activities related to folic acid and the following presenters will provide more detailed information on their specific chapter activities. Next slide, please. Why folic acid? Approximately 2500 babies are born each year with neural tube defects which are birth defects of the brain and spinal cord and neural tube defects occur actually in the first 28 days of a woman's pregnancy and often before a woman is even aware she's pregnant. So back in 1992, the Institute of Medicine had recommended that all women of childbearing age take 400 micrograms of the B vitamin folic acid on a daily basis before pregnancy. Because studies had shown that this could reduce the occurrence of neural tube defects by up to 70%.

Next slide. Much research has been done by advocating with enriched grain products which the F.D.A. mandated to be completed in 1998. Back in 1995 you see the March of Dimes did a folic acid survey in conjunction with their awareness of the issue and use of vitamins. Their awareness level was 52% while the daily use of vitamins containing folic acid was 28%. It raised a red flag that it could be so easily fixed by taking a vitamin every day to prevent a serious problems. The March of Dimes decided to take it on as a public health initiative for a certain period of time. For the March of Dimes launched its folic acid campaign in 1998. This campaign went through 2002. It included many components including both media ads, campaign ads and education. And it's still part of our mission outreach efforts today. And one important way that it's part of our efforts is through VitaGrants which is what we'll talk about today. They're grants funding the activities we'll be talking about.

Next slide. The term VitaGrants is used to describe funding that was received through a class action settlement against multiple tobacco manufacturers for alleged price fixing. These funds were distributed through various state attorneys generals offices throughout the country and the March of Dimes state offices applied and ten of our chapters have been awarded grants totaling over \$6 million to date. As you can see or you'll see in a moment, our North Carolina chapter and Florida chapter received substantial funding. \$3 million and \$2 million respectively. What I'm going to be talking about is the other slice of the pie. While these are smaller dollar amounts, these states have been able to make a big impact through various avenues through vitamin distribution, professional education, media campaigns and local outreach.

Next slide. Some examples of our vitamin distribution activities you'll hear from Elizabeth about their big distribution activities in Florida. And also in Rhode Island they launched a unique pilot program with the Rhode Island food bank to distribute vitamins to low income women throughout the state. The Rhode Island food bank collected the vitamins for distribution to all of its sites and accompanied by March of Dimes educational materials and they're hoping it will become -- the state-wide program will be replicated in food centers throughout the country. Then in Maine they received a grant of a little over \$100,000 and they have distributed over 62,000 bottles of vitamins primarily through community health clinics, colleges, healthy start-based clinics and family planning sites.

Next slide. In addition to vitamin distribution, which a lot of our chapters did, some of our chapters also provided professional education opportunities in their communities. In Rhode Island the chapter distributed 100 free folic acid pharmacy kits throughout the state to encourage pharmacists' involvement in their projects. It contained educationals for pharmacists. They facilitated the translation of four March of Dimes nursing modules in Spanish in Puerto Rico. They're continuing to enhance the knowledge base of perinatal nurses and midwives. It was pre-conception and health promotion, diabetes and pregnancy, pre-term labor and adolescent pregnancies. Each module was accredited by the University of Puerto Rico for nurses and other healthcare professionals. So far over 600 healthcare professionals have taken the modules for credit.

Then finally an example in New York of professional education they went the route of videoconferences. They had two large videoconference grand rounds. One was for healthcare professionals where a doctor hosted who is the guru of folic acid information and went to 95 sites throughout the country and one geared more toward pharmacists that went out to many sites as well. Both of these videoconferences included free continuing education credits. Next slide. An example of a really successful media campaign we had was in New York. This consisted in both New York City and upstate. In New York City they had ads in mass transit, in subway and local rail and they were able to contract with Viacom outdoor for a very reduced rate of \$49,000 for four weeks and it was determined that these ads made 98 million impressions. In the upstate they concentrated on billboards and a print campaign in newspapers. The billboards cost about \$30,000 through the LAMAR companies. They only charged half their rate. They posted it, I believe, for two months and they made 35 million impressions. For the print campaign that consisted of 45 newspapers, which only cost \$1800 but made about a million impressions.

Next slide. In some chapters were able to make a really strong local impact through some unique programs. In Maine, they worked with student volunteers in their chapter office to send packets of folic acid materials and resources to every school nurse and science teacher in Maine's middle, junior and senior high schools. They followed up by providing free multivitamins to students in several of those schools. In Rhode Island, they hosted a series of workshops. The workshops were on folic acid awareness as well as prematurity issues in six high-risk communities and used the infrastructure of the Rhode Island food bank to disseminate the information. We're talking about a lot of the successes you'll hear

about today. We thought it would be helpful to highlight some of the challenges that were experienced along the way. One of them was regarding HIPAA. Everyone knows that HIPAA is extremely important and very much a part of everything we do today related to patient activity and outreach.

There were a lot of delays in working with some local health sites that distributed the vitamins on our behalf. We were very interested in collecting information about the recipients so this way we could follow up to find out if they continued to take the vitamins after they received the free vitamins. Some of the sites were apprehensive because they were concerned about whether or not we would be complying with HIPAA since some of the HIPAA regs are pretty consuming. All of our local healthcare sites were confused about our pre-conception message and had to make sure they only gave the vitamins to women not currently pregnant. Some schools were not interested or couldn't participate because they had a policy not to give out drugs, including vitamins. Then finally, with any grant it can be time consuming with a lot of the smaller grants they received funding for additional activities but not additional staff. It was a balancing act to take on the additional work.

Next slide. And then finally I thought I would end by showing you our most recent Gallup survey. Just in general one of the successes has been since the F.D.A. mandated the fortification of enriched grain products there has been a 26% reduction in the rate of neural tube defects. As you can see here through our efforts, the awareness level of folic acid has greatly increased to over 80%. The daily use, though, has not increased to where

we would like to see and this can be a common problem with trying to create behavior change with, you know a big healthcare issue. The survey did uncover some interesting insights into this phenomenon, however. Of the women who were least likely to take folic acid, in general they aged between 18 to 24 years old. They had not gone to college and they had incomes of less than \$40,000. They were not white and they were often from the south. Then also over 85% of these women who didn't take vitamins daily said they would if a healthcare provider advised them to. So our most recent VitaGrant projects in North Carolina, Tennessee and Florida are armed with this information and they're now making great inroads to address these issues. I'll now turn it over to Anna Bess.

ANNA BESS BROWN: Thanks, Denise, this is Anna Bess brown and the title of this section is multivitamins, take them for life. Next slide. Thanks for the opportunity to talk to you about the work of the North Carolina Folic Acid Council. Our mission is to improve the health by promoting the benefits in consumption of folic acid. In North Carolina the neurotube defect rate was nearly twice that of the national rate and in the western part of our state, the rate was nearly three times that in the rest of the United States. So we began our intensive campaign efforts in the west and between 1995 and 2002 the prevalence of NTDs in the west decreased by about 75%. Food fortification came along about 1988 -- 1998, so, of course, that had an impact as well. And you will hear Linda Morgan, our western campaign coordinator, talk in more detail about the work that she has done in the west in just a few moments. Statewide in 2002 there were an estimated 80 to 90 fewer pregnancies affected by neural tube defects.

Next slide. So we have had some success in raising awareness as Denise mentioned. In 2001, 86% of women who gave birth had heard or read about folic acid. It was up from 74% in 1998. This was according to NC PRAMS data. A pregnancy survey. Only 27% of women reported taking a vitamin every day before becoming pregnant, however. So as Denise pointed out, awareness had risen but how do you get women to change their behavior? That is the eternal question in public health. The 2005 March of Dimes Gallup survey reported 33% of childbearing age take vitamins. Although a lot more people know about folic acid and know it's good for you and the recommendation is for women of childbearing age taking a vitamin containing folic acid a lot of women aren't doing that. We looked at social marketing and thought how can we make it more interesting for women of childbearing age get the knowledge not just in their heads but in their tummies? How can we make this message fun? Are the consequences both real and rewarding for me. The health education link are the perceived consequences.

The next slide. How do we make this behavior change easy so the people we're trying to reach am I capable of doing this? Next slide. And, of course, popular. Is this going to make me popular? What do the people I care about want me to do? Next slide. So we knew that our message needed to be customer centered. We needed to target the audience's wants, needs, perceptions and behaviors about the problem and we knew we needed to design the social marketing program to meet the target audience where they are. Next slide. So we designed, with the help of an advertising company an advertising tool. We knew it had to be customer focused. Data driven. Target specific audiences and

wanted to have an interdisciplinary approach in order to affect voluntary behavior change for personal welfare and for that of society.

Next slide. So from 2003 through this year, 2006, we are broadening our folic acid message not just talking about folic acid as a way to reduce NTDs but to include a multivitamin message. Take vitamins, they're good for you. We wanted to use target group and regional organizing and a statewide approach and started in the western part of the state and had a large focus in the eastern part of the state last year and we're moving across the state to have a comprehensive statewide educational campaign. A large component of our campaign is to reach healthcare professionals and providers and Linda will talk about that next. Next slide, please. So with positioning and branding, our object is that our end users we want for them to take a multivitamin daily and for them to feel that it's the simplest and easiest thing they can do to improve the way they feel and look. We can't say it will make your hair shiny, nails beautiful and thin body. We try to imply it with pictures of beautiful young women on our brochures. The brand or product is a multivitamin containing 400 micrograms of folic acid. We want our target audience to take a multivitamin every day.

Next slide. Our awareness building tactics. We've used newspaper. You might think how do you reach 18 to 24 year Olds. They don't read the paper. Their lives are too busy. When we did focus groups in rural communities in the eastern part of our state, we found that a lot of these women in these rural areas and small towns did read the newspaper for gossip and for information. So we've done some newspaper ads. We've done radio ads

because there is a lot of radio listening. We have done some database marketing to women and healthcare providers through direct mail and used vitamin coupons in the direct mail. Our grassroots efforts are very important, too, whether educational, posters, brochures and reminder items. We have, for example, now bright green or folic acid color with multivitamins, take them for life in both English and Spanish and our website and phone number where people can get more information printed on a cell phone holder because these young women are such users of cell phones. We want to have reminder items that people will see every day to remind them to take the vitamins. What did these gorgeous new materials that we've worked so hard to develop look like?

Next slide, please. This is our main brochure that really we use with many -- with broad, wide audiences. It could be for women planning a pregnancy or not. For any woman of childbearing age this brochure would be appropriate for them. You'll notice it has young women, our target audience is 18 to 24 but of course we thought it would leak over into all women of childbearing age. Our slogan multivitamins, take them for life in a green color. The caption reads, we can't be our best if we can't feel our best.

Next slide. This is the flyer designed for non-contemplators. Women not thinking about getting pregnant right now. Half of pregnancies are unplanned it's very important for all women of childbearing age to have the folic acid in their systems. It was designed to attract the attention of a young woman, take control of your life and take control of yourself to encourage her to get the folic acid in her system that it's a healthy thing for her to do even if she's not planning a pregnancy.

The next slide. This is a poster for the contemplators. Want to stay healthy for the both of us. Next slide. And the companion brochure that goes with that flyer multivitamins for you, for your baby, for life. Then the next slide is a physician ad. She wasn't ready to have a baby but thanks to her doctor, her body was. So you hear more about this from Linda but we're doing extensive work to reach healthcare provider offices and train them on their very important role in encouraging their young patients to take folic acid every day. Next slide is the front of our direct mail piece. These were mailed to 18 to 24-year-old young women in eastern North Carolina. It's beautiful and designed to look like a magazine cover so it would be eye catching and beautiful and they would want to read it. It had a vitamin coupon inside it to encourage them to go out and buy vitamins.

The next slide shows the inside which talks about some of the common myths and is taking a vitamin all I'm going to have to do? It says no you need to have a good diet and exercise, too, which is an important message to accompany the message of taking a multivitamin every day. The next slide shows an ad, a newspaper ad, as does the next slide. And lastly, the next slide is my contact information if you have questions. This is national folic acid awareness week and I have a question for you. Have you had your vitamin today and have you talked to all the women in your life who are of childbearing age about whether they take a multivitamin every day? We encourage you to do that. It's very important. If you're a healthcare provider your message has an especially strong impact. Talk to all women of childbearing age of taking a multivitamin every day. Next I

would like to introduce Linda Morgan by colleague and mentor. Our leader in North Carolina. She's going to go next.

LINDA MORGAN: Thank you, Anna Bess I would like to take the next few minutes to describe a recent folic acid education campaign with a healthcare provider education component developed in western North Carolina. In North Carolina we've been very fortunate over the past few years to have state funding in addition to and even before we received our VitaGrant funding. That state funding money was used to fund this campaign development and partnership with the North Carolina Folic Acid Council and Fullerton genetics located in mission hospitals in Asheville, North Carolina. To get started I would like to acknowledge Kathy Melvin that helped with the design and analysis of the survey. She's at UMC Chapel Hill and in addition to her Bob Meyer with our North Carolina birth defects program who helped with the final analysis of the survey data.

On the third slide you'll see the area that was -- it's 24 counties of western North Carolina that were covered by this education campaign and they're highlighted on this slide. The demographics of this area is very rural and mountainous. We have a lot of Irish, Welsh and Scottish heritage. It's important because of the influence of the genetic component with neural tube defects. In other parts of the world, Ireland, Wales and Scotland there is a high incidence of neural tube defects. Because of that genetic components and we have a lot of that heritage in western North Carolina is one of the reasons our rate was so high in our area. In this area we're talking about we have 1.1 million population and about 13,000 births per year.

On the next slide it shows a map of the United States and it shows that North Carolina is in this region that has historically had a higher rate of neural tube defects like spina bifida and this area also includes South Carolina, some parts of Tennessee, Georgia and Alabama. The history of our education campaign actually we started in about 1998, 1999 with an informal campaign housed at Fullerton genetics primarily due to a Genetist we have on staff who came to us from South Carolina and as you had seen on the other side, South Carolina has a very high incidence of the United States of neural tube defects. South Carolina had the first if not -- had one of the first if not the first folic acid education campaign that they developed and started back in 1992. This campaign that we're talking about today in western North Carolina started in the fall of 2000 when we received some state funds for an intense six-month education campaign. At the time the funds were released from the state. We had six months left in the fiscal year. We felt like at that time this would be the only funding we would receive.

We went out gang busters and did as much as we could and it influenced us later on thinking it was a one-time funding source. In 2001, 2002 and 2003 we received the same funding from the state and it would be released after six months of the fiscal year was gone so we had six months to put together our campaigns and then starting in July of 2004 we have received recurring funding. The 12-month funding to have the campaign continuously in addition to the VitaGrant funds you've already heard about from Anna Bess and Denise. On the next slide it shows our campaign components. We have a very comprehensive education folic acid education campaign going on in the western part of

the state as well as the rest of the state. One component is a community education piece which is a grassroots community ambassador program where we target individuals from each of the outlying communities, the 24 counties we cover in the west. We train them, give them materials and they go out and arrange their own groups to show a video and do about 15-minute presentation in the community. Depending on the funding we've had, we've had media and Bess has already talked about that with TV, radio and print.

One thing we have going on in the western part of the state is a multivitamin distribution program that actually was funded by -- started off by a March of Dimes grant and we've had some other private sources fund that. We are able to provide to all 24 of our health departments out here free vitamins so they will be distributed to low income, non-pregnant women of childbearing age. I'll also talk about the healthcare provider education piece. Why target healthcare providers? This is sort of just reiterating the information that Denise has already given you. This was a Gallup pole in 2004. Women who were familiar with folic acid, only 29% of the women that were familiar with folic acid stated that it was their healthcare provider that provided that information. Yet of the women that don't take multivitamins, if asked if a healthcare provider recommended it, would you take a multivitamin, 89% said they would be likely or very likely to begin taking a multivitamin. It's a very large number and we wanted to tap into that.

On the next slide you'll see with our healthcare provider education this is a synopsis of our education campaign with the healthcare providers. We target OB/GYN, family practice and pediatric practices. We go into their offices and do a 15 to 20-minute in-office

presentation. This involves a six-minute video that we developed here and then some question and answer period time. We make it short and sweet. We go in first thing in the morning or at lunchtime. We provide patient materials and reminder items. And then before we leave, we ask for a volunteer of the staff to be our office champion. The office champion, as you can see on slide 10, keeps the folic acid message alive in the office. They keep it on the minds of the individuals. We know how busy the offices can get and they have a lot of things to discuss with women. So they might bring it up at staff meetings. Make sure the posters are on the walls and doors in the exam rooms. They monitor the patient materials. Let me know when they need more. They receive and disseminate patient reminder items.

Part of the program is every four to six months we'll mail out a bag of reminder items like Emery boards or tooth paste squeezers or other things we have for them to have in their office to give out to patients for the patients to remember to take their multi-vitamins as well as to keep the message alive in the office and remind the healthcare providers to talk to women. Maybe if they see these things laying around they'll go right, I need to talk to her about folic acid or multivitamins. This office champion is my contact person for the office.

On the next slide I've just given you just taken a picture of some of the various items we have. You see the brochures that Anna Bess has already talked about. We have Emery boards. The cell phone holders are back there in the middle. We also use materials already out there. We don't develop all these materials. I use some of the C.D.C.

Pamphlets. The spina bifida card is great for use in healthcare providers. It gives the information in a concise pocket card.

Now, on the next slide I start to begin to tell you about the survey. What would have been ideal if we had known that this campaign was going to go on for five years as it has now, would have been in 2000 or 2001 to do a pre-survey of our healthcare providers, done an intervention and post so we could compare the data. As I mentioned earlier we thought our funding was one time and we didn't have the time nor did we want to spend the money on survey development. Since then I became aware in the fall of 2003 of a March of Dimes survey done nationally with healthcare providers and we thought we'll do a similar survey and compare our data to their data so see if they've made an impact on our healthcare providers with our program. Our objective as you can see on this slide was to determine if this campaign with our healthcare provider education component had had an impact on the knowledge and the practice of the healthcare providers in western North Carolina. Our methodology was to use a modified version of the national survey that I just mentioned.

We targeted 93 offices that had already received a folic acid in-service. Mailed out 406 surveys and we had a 66% return rate. The two things that we were trying to assess was folic acid knowledge and practice. So in the next couple of slides you'll first see the results from the knowledge. There were nine questions asked on this survey and what we found was that we found that on eight of nine of the questions, that a greater percentage of the western North Carolina healthcare providers gave us the correct answer than compared to

the national data. So, for example, I'm not going to go over all of these. For example, for the first question the question was, what is the recommended dose for a woman of child-bearing age non-pregnant? 400 micrograms. In western North Carolina 82% of the healthcare providers knew the correct answer. Nationally it was only 44%. You can see the asterisk beside the data shows it was a statistically significant difference between the data.

The next questions were about birth defects, cardiovascular disease, true/false questions in every case the healthcare providers in western North Carolina answered correctly than compared to the national data. On the next slide that finishes out the folic acid knowledge we have more of the true/false questions where you can see the western North Carolina healthcare providers higher percentage answered and then our very last question, number nine, was for a woman who has had a previously affected NTD pregnancy. In other words had a pregnancy where the child had spina bifida, neural tube defect or had it herself what is the recommended dose for her to take pari-conceptionally. That is 4000 micrograms. Very few healthcare providers answered it correctly. You can see it was lower in western North Carolina. I would like to note here at the -- previous to this survey when we had been doing our in services and video that we had produced, we did not emphasize the dose for our previously-affected NTD pregnancy. As a result of this survey we do that and we hand out the cards from the spina bifida association to every one of the healthcare providers we go into and see and go over that data.

Lastly, the survey showed us the practice of our healthcare providers. The way this was ascertained was the question was, in a women's annual well exam do you usual, always, occasionally, or never address folic acid to the female. Women of childbearing age. We broke the responses up into OB/GYN and family practice. There is a good bit of difference there. You'll see in western North Carolina 78% of the OB/GYN healthcare providers responded by saying that they usually or always address folic acid in their well-woman exams and nationally it was only 63%. That is a statistically significant difference. In the family practice setting it's lower. Western North Carolina was at 50% versus 40% nationally. The next slide shows you some of this information you've heard from Anna Bess in a visual form. It is not directly related to this survey but I wanted to put this in here. It shows the NTD rate in western North Carolina in yellow as compared to the state rate in red. In 1995, the number that is quoted often it was at a high of 15. That was 50% higher than the state rate at the time and almost three times the national rate. And then it has dropped way down and here back in about 2000 -- you can see in 2004 our rate between 95 and 04 has dropped 75%. Nationally across the nation the rate -- this is post fortification also, the rate dropped 26%. In our area it was 75%. We're very proud of that number.

In conclusion, we found that the western North Carolina healthcare providers offices who had received a folic acid in-service and answered the survey were more knowledgeable about the correct folic acid dose, percent of unattended pregnancy and less knowledgeable about the dose for the previously affected NTD pregnancy. Next slide western North Carolina healthcare providers are more likely to discuss folic acid with their

patients in the OB/GYN practices and the education campaign with this healthcare provider component appears to have had a positive impact on the knowledge and impact of healthcare providers in western North Carolina. Thank you. Now we'll hear from Cindy.

CINDY CHAFIN: Thank you, Linda. I am very honored to be here today to talk with you about what is going on in Tennessee with the Girl Scout initiatives. As you'll see from our title slide, the theme of our Girl Scout initiative is good health looks good, folic acid every day. And that was selected after much thought and deliberation from our Tennessee Folic Acid Council, who I will share just a brief tidbit about in a moment. I would like to say that this information was presented at the recent APHA conference in December by Todd Grantham with the Tennessee chapter of the March of Dimes and one of our Folic Acid Council members. His name is on the cover front slide and it is the same presentation. So hopefully you all will get some good information from this. We also use some of our VitaGrant funds for the Girl Scout activities. We have done several things with our funding and this is one of the many things that we were able to do through those funds.

I'll go ahead and go to the next slide. And just to tell you a little bit about the few things that I will cover in the brief time allotment that we have today, I would like to give you just a very little bit of information on the Folic Acid Council in Tennessee and also talk to you about why girl scouts were targeted to receive folic acid education. To go through some of the activities we've done through the initiative and share some of the program materials, some photos and things of that nature, time permitting and then also we have outcomes and successes and challenges that will be hopefully helpful to anyone interested in doing

a similar program. On the next page we have a little information about our Folic Acid Council. Many of you are familiar with Folic Acid Councils in your state. In the State of Tennessee we have a collaboration between the Tennessee chapter of the March of Dimes and the Tennessee Department of Health who are the lead partners in our Folic Acid Council. We have many individuals who are on this group who were instrumental in implementing these activities and we're very grateful for their input and participation.

The Tennessee Folic Acid Council was the driving force behind initiating efforts to educate Girl Scouts on folic acid, and healthy lifestyles. Prior to the council's involvement there had been no activities of this type that we were aware of. It was a very exciting project for our council to be involved with. I could say a lot about our wonderful group but time will not allow for that so we'll go right ahead to the next slide and talk a little bit about why we selected Girl Scouts to work with. As a group we decided teens and young women don't get enough folic acid, coliseum, iron from the foods we eat. We have nutrition professionals on our group as well as other healthcare professionals and this was a group that was sadly lacking information on these areas.

We decided that the older girls would be a good target because they technically are considered of childbearing age. And it would be a great opportunity to get in on the ground level with them while they're still young and it's just the perfect opportunity to teach them lifelong healthy habits, especially good nutrition while they're young. We also have targeted other ages within the scouts but the older age group are the girls that we really decided to zero in on. We'll go ahead and go to the next slide. Training and education --

I'm sorry, I think I skipped one here. Yes, training and education. We started planning for this in 2002. So while we feel like we've accomplished a lot it hasn't happened overnight just like everything else that's worthwhile. We started in 2002 in a piloted area, east Tennessee.

Throughout 2003 is when we really started expanding and moving into other areas when we felt like we had a good handle on what was going on and what some of the things were that we could do a little bit better, what needed attention, what we were already doing well. We learned quite a bit from east Tennessee so we were very grateful for that experience. We started out doing training for some of the camp staff and actually went to the summer camps and did activities with the girls and from that point on we expanded the program to include a badge and batch workshop which we'll go over in just a little bit. But we did start out primarily through the camps and when we expanded into other areas of the state, we included a lot of special events such as overnight activities, community events, other various things that the Girl Scouts were doing. We really tried to integrate it into what they were already doing, which is one of the successes that we'll talk about a little bit later. And one of the challenges. We'll go ahead and go to the next slide.

To give you a visual of the badge and patch, we have that here presented for you. The square patch and the round badge. These both were developed by our local members along with March of Dimes staff and regional Girl Scout staff in the State of Tennessee. They worked together to both design and produce the patch. There was a lot of contemplation back and forth on how this should look. So it was another example of how

we really took a lot of time to develop something that would really work for this project. And that's what you see there on the slide. The badge is essentially for junior scouts and it is earned strictly through the badge workshop. The badge workshop does have set criteria which is on a future slide. The patch is actually for all age groups. There are multiple levels of scouting, as many of you probably already know, and that way we could cover all ages.

As I mentioned earlier, we tried to focus on the older age groups but we did not want to exclude younger ages as well because we did have requests for that. So we developed two different pieces that would work depending on which population we were working with at the moment. So that's what you see there. And on the next slide that is sort of a summary of what I just mentioned. We customized our approach in different areas of the state to what works -- what worked for that particular area. In the middle Tennessee area, we do focus primarily on ages 11-14. However, in east Tennessee they seem to have a lot of interest in the younger brownie scouts being involved so it really depends on the region of the state and we've tried to go with that. And just accommodate whatever their wishes and needs are. The enthusiasm from these girls is just phenomenal. I have never seen anything like it.

Some of the activities that we actually do are on the next slide but we have them developing cheers, developing rap songs, writing commercials and I honestly do not think at that age I could have ever been as creative as these girls. It's phenomenal the things that we have seen them do. And they're really learning and having fun while they're doing

it. So it's something that they're going to remember and it is going to sink in, the message is going to sink in with them. The other encouraging thing is that the leaders have also been very, very receptive and eager to have us come in like with anything, I think they -- people appreciate having a pre-set and pre-planned agenda where someone comes in and presents information and a program and their involvement can be minimal so they can focus on other things. They've really taken to that and have shown their appreciation for allowing us to come in and basically run the show for the evening or for the day, whatever the case might be.

We'll go to the next slide. We have a summary of activities here. These are actually for the badge workshop. And at a minimum they must complete six of the ten activities. I have them just listed here in summary. We have a detailed sheet that we could make available to anyone who is interested, but some of the activities we have them do a food diary where they record their intake of food on a weekly basis and also their vitamin use. We may have them research the diet of an ethnic population of a region of the world or of the United States and explain whether or not they may or may not be getting enough folic acid. We may have them write a script for a commercial, a rap, a cheer, do a web search on folic acid with a summary of their findings. We've had them do newsletters. We've had them do a recipe book or cookbook. The choice is theirs. We work in advance with the leaders to decide which ones of the activities that they would like to do for any given workshop. So we do give them some choices there. For the patch, they can do any of these activities or activities that are identified through their leaders.

Which is the next slide, slide number 9. A sample workshop agenda is included in the following slide and we try to keep to this agenda but again we allow some input on that. We tried to keep the discussion and lecture type information at a minimum. We started out with a presentation that we thought was pretty short at about 15 minutes. And that did not hold their attention at all so we have eventually shortened that to where we're having about five minutes of presentation for any one thing versus actual activities. That seems to work a whole lot better. The next slide -- I'm moving quickly here because I realize our time is limited. We do have meals and break times included in the workshops and we do provide that as part of our service to them and through our grant we're able to include some meals and snacks that are rich in folic acid, of course. We can split the program into two meetings if they can't do the more lengthy workshops or work with the leaders to make sure the girls are meeting other outside requirements that maybe we don't have time to address in a shorter two-hour session. But most of the workshop is actually spent on activities versus lecture.

The next slide we talk a little bit about some of the materials and incentives that we have developed for this and we did -- we do try to use some materials that are already out there. What we discovered was in our area we did not have a whole lot that addressed just teens and young women so we developed some things, our council members worked really hard on that. And developed some things that went with the good health looks good folic acid everyday theme. One of the things we had to focus in on our area was not emphasizing the pregnancy aspect that much. We did mention it but it was included with all other sorts of health-related information. At least in Tennessee, there was some

reluctance and resistance to discuss pregnancy with young women and we really had to try to be sensitive to that issue and make sure we approached it from a healthy lifestyle perspective and not just a pregnancy perspective. We had Emery boards and compact mirrors, things of that sort that were attractive to young women.

Again, we used our theme, the good health looks good every day on those. I've included a couple of other slides that have photographs, and I don't know that we'll actually have time to get to all those. So I'll just mention that there are some select slides that demonstrate some of the special events that we have such as a international tea. It was an event where we had 300 girls from 21 troops represented there at that event and they were able to get some folic acid education there. Promoting the workshops, slide number 15, the way that we have done that best is to actually communicate with them that they are not only earning a folic acid badge or patch by meeting certain requirements but meet the requirements of various other badges and patches as well. They're killing two birds with one stone by doing these activities. Many people had never heard of folic acid. People just don't know what it is. When we emphasized the fact they could earn other badges and patches as well that really seemed to get the ball rolling.

On the next slide we promoted the workshops to the leaders through -- in our area what is called a leader notebook. There is a description of the title of the synopsis that we have there for that program. And we just explain it.

It was a 2 1/2 hour training for them where they could learn how to conduct their own badge or patchwork shop and promoted the healthy lifestyle approach again. Some of our

outcomes as of September 2005 on the next slide you'll see that we've had over 4,964 girls participating in activities and of those girls, 1860 have actually earned a patch or badge. We also have a significant number of leaders who have participated in various events as well. Some of our survey results we took a sampling of a very brief survey that was developed by our Tennessee Folic Acid Council members and you can see the results of that on slide 18. Pre-session there were only 26% who knew what folic acid was. At the end of the session there were 100% who knew what folic acid was. This sample of six workshops actually consisted of 73 pre-test and 58 post-test just to give you an idea. Then you can see on the next slide some of the outcomes that were on the subsequent questions as well.

Just to briefly go over slide 20, our successes and challenges. Some of the factors for our successes were that our local volunteers actually made connections with the Girl Scout staff. We could not do it without those connections so we really relied on some of our local volunteers to make those connections. Again, we really tried to work with existing troop activities. So many organizations have so many things going on already and to add something else to their agenda sometimes doesn't work. If we could coordinate to things they already had going on, that worked best. Focusing on the healthy lifestyle versus pregnancy only for this population and for our state was the right thing to do here. Challenges, just like with anyone, lack of time, people -- the groups already had a lot going on. Discussing the pregnancy and birth defects and also funding which is an issue with just about anything nowadays. I'll let everyone look at the photos at their own leisure.

Those are the next couple of slides. And we also have listed the last slide our contact information, should you have additional questions after this session ends. So having said all that, I would like to turn the presentation over to Elizabeth. Elizabeth, are you there?

ELIZABETH JENSEN: Sorry, I forgot to press the mute button. Thank you very much. I'm Elizabeth Jensen and talk to you about what Florida is doing with their portion of the VitaGrant dollars. Primarily our initiative was in vitamin distribution. Next slide. As you can see in Florida, between 1996 and 2005 20 infants were identified by our birth defects registry as having been born with a neural tube defect and most of these were spina bifida. The PRAMS data showed that although 78% of new mothers were aware that taking folic acid could prevent some birth defects only 44% of these consumed a vitamin supplement the month before becoming pregnant. We have a problem where they're aware of folic acid but taking it is a different story.

Next slide. Florida received \$16 1/2 million through the March of Dimes, Florida chapter received \$2 million to fund the three-year, state-wide project. The goal of the project was to provide folic acid and pre-health education to underserved women by providing women with three vitamins. Folic acid were in these materials and pre-and interconceptual health materials. We partner with the Florida Department of Health and that's how we really started weaving in the pre and interconceptual health message. Folic acid is just a piece of that. Some of the other activities we do with the grant are about educating women about other interconceptual health issues in addition to folic acid.

Next slide. Our target population is women of childbearing age. They have to be non-pregnant primarily we're looking at serving the underserved or unserved and we have targeted outreach to Mexican Hispanic women and Haitian Creole women. Mexican Hispanic women are at the highest risk for neural tube defects in Florida. The rate is -- the relative risk is nine times higher than that of other populations. So we really have an interest in that population. Next slide. We're distributing our vitamins through all different types of providers. Basically anybody who is serving the target population. But we partnered with Healthy Start in Florida as well as some federal Healthy Start, both of which are partnering with us. WIC, family planning clinics. We have some early head start providers. An HIV outreach program. Numerous community health centers, non-profit organizations, faith-based organizations and we also distribute through community events.

Next slide, please. We started our distribution in January of 2005, so this week marks the first year of distribution. Our goal was to distribute 150,000 bottles of vitamins each year and the first year we had an overwhelming demand for these bottles of vitamins and distributed 190,000 bottles. Next slide, please. In addition to providing the resources of the vitamins and the folic acid materials and the interconceptual health materials we also give the folks we're partnering with the opportunity to participate in a training on interconceptual health, folic acid and the programs and we've had a lot of folks that were interested in disseminating that information. We more recently started providing more specific information on working with the Mexican Hispanic population to promote folic acid use in that population. Next slide, please. We have a small evaluation component for the project. Essentially we have two different types of sites that are distributing the vitamins. Those

sites that are not providing any kind of follow-up to the women as to their experience with taking the vitamins, and then the sites that are providing that follow-up and are collecting more intensive data for us.

Next slide. Sites not providing the follow-up merely collect demographics on the woman's age, race and ethnicity and capture it in aggregate form. Then the sites with follow-up we have five sites. We have healthy start and healthy families collecting data and the northern part of the state we have healthy start, smart start and WIC participating in collecting data and Jacksonville, Florida, we have the Magnolia Project which provides interconceptual health information. These sites are all collecting intensive data for us. We recently added one additional site. Just outside Tallahassee that provides midwifery service and they'll help us capture more information on the Mexican Hispanic population. One challenge we've had and you'll see it when we get into the data the sites providing the follow up, the demographics of those women is different than the demographics of the women at large for the sites that are not providing follow-up. We're trying to get closer to reaching something that would mirror the demographics of the at-large general population.

You can see they're collecting information on the woman's experience with taking supplements, her history of birth defects, her knowledge of folic acid at the initial contact and at subsequent points of contact and her experience taking the vitamins. Whether she had any challenges, what the challenges were. Next slide, please. We have a staff in different regions of the state. In addition to myself, there are four regional outreach coordinators who help track the distribution of the vitamins and their region. They

participate in local community events. Provide technical assistance to the sites. Provide the training and help collect the data for the project. Next slide, please. And they're located throughout the state in different regions of the state.

Next slide. You can see for the sites with follow-up the breakdown and race, 75% were black, 21% white, 4% other and you can see 8% were Hispanic. Which is good. We're encouraged by that given that we're targeting that population. Next slide. Folic acid knowledge, these are the sites providing the follow-up. Based on what you heard, seen or read should a woman take folic acid before her pregnancy? Yes. There is a good deal of awareness but the practice we're struggling with. Which specific vitamins can help reduce a woman's risk of birth defects. 51% said folic acid. 33% said they were aware of the recommendation of 400 micrograms of folic acid for all women of childbearing age whether they're pregnant or not. Next slide, please. At the initial contact for these women they were asked do you currently take any vitamin pills or supplements? 29% said yes, of those, 42% said they were on multivitamins.

Next slide. They said that 81% said they were taking them at least once a day. Next slide. Then -- this is a question that we had early on in the survey and in actuality we ended up taking it off midstream because the sites were complaining that the women felt that it was too intrusive and they were uncomfortable with the question. But we did get a little bit of data from that. Of the 212 responses to the pregnancy intendedness question very few reported that the pregnancy was a planned or anticipated pregnancy on their previous pregnancy. This is not surprising given the population we targeted for the grant. Of those

responding, only 22% said they were taking a multivitamin or folic acid supplement in the month prior to pregnancy. Interestingly enough, we collected birth defects data and six women reported having a baby born with a neural tube defect, which is higher than the state rate. I'm not sure if that's a self-reporting issue or whether it's again because of the population that we're serving through the grant.

Next slide, please. When we did the follow-up, are you currently taking the multivitamins provided, 65% said yes, 7% said sometimes. So we did see an increase in behavior. 72% were taking the vitamins at least some of the time. Obviously we needed to work on getting them to take it every day, which is another challenge. Next slide, please. In talking about the challenges for not taking it, 36% said they just can't remember to take it. And then what we had heard anecdotally, some folks were having trouble because the pill is too big. That's what the data supported. 13% felt that way. We did toy with the idea of purchasing a chewable version of the vitamins but then the fact that the demand for the vitamins has been so great as it is and we're already exceeding our goals for distribution we decided not to do that because it's more costly to purchase the chewable.

Next slide, please. Here you'll see the sites without follow-up, the ones only collecting the age, race and ethnicity the majority of women receiving the vitamins and materials were between the ages of 20 to 24, which is the age least likely to be taking a multivitamin as reported on the data in Florida. Next slide, please. Sites not participating in the evaluation, we can see that the demographics do not mirror the demographics of the other population. But we're encouraged by the fact that so many of the women we're serving are the

Mexican/Hispanic population. The 2000 census data shows 16.8% of Florida are Hispanic. So we are doing well in that area. And then next slide, last slide is just my contact information if you have any questions or you'd like to see any of our materials. We do have some materials that we've developed in different brochures, some different, the media campaign associated with the projects. We have some materials associated with that, too. If you're interested in any of that, feel free to contact me.

ADRIANE GRIFFEN: Great. Thanks Elizabeth and thank you to all the speakers for presenting today. We are now open for questions and answers. Please submit your questions to the speaker using the messaging center on the lower right of the screen. And please make sure you select question for the speaker. That will help us sort the question for each of the speakers. OK. So we do not -- looking at the queue right now we don't have any from the audience. I actually had one if I could get us started. This one is for Cindy. In regards to the badge work that you did with Girl Scouts, that was a really neat project. I was wondering how did that compare with other community outreach efforts? For example, have the Girl Scouts in your region been open to working with other community health education efforts like this? How did you find getting your in with them?

CINDY CHAFIN: Well, it's been great. That's the only way I can describe it. Prior to this initiative, we had done a lot of community outreach through the Folic Acid Council. However, we had not really targeted a younger age group like this. So it's been great to have them involved. They've gotten involved in community events through their schools and through other organizations that they're involved in to further that folic acid message.

And they have an incentive. They're very enthusiastic to begin with but they have the incentive of doing as much as they can to earn these badges and we built in some of the requirements that they do some work with other community-type activities to sort of support that. It's been great. And we have had just a phenomenal response to it here. Some areas it was a little slower to take off than others but once we made the right connection with the local Girl Scout person, things kind of took off from there.

ADRIANE GRIFFEN: Great. Thanks, Cindy. As a follow-up to that we have an audience member who wrote in and asked, also for you. Are there any efforts going on in Tennessee on folic acid to reach out to the adult women population as well?

CINDY CHAFIN: Our Folic Acid Council has different things that they are doing. I know with the start of the new year we're looking at what some of those other activities might be. But community education and education of adult women has always been a focus of what we've done. If anyone is interested, they can also visit our Folic Acid Council website to see what some of those things are. It's [folic acid Tennessee.com](http://folic acid Tennessee.com).

ADRIANE GRIFFEN: Thank you. This is a general question and a comment. Do any of the speakers know if there have been any studies as to the effectiveness of a multiple message awareness effort, for example, multiple health issues versus a single message? For example, folic acid alone and this person is writing from Indiana. Do any of the presenters feel like they could take that?

DENISE LOMUNTAD: This is Denise. I was just thinking for in North Carolina and you might be able to speak to this, that this is actually the approach we're now taking and it's a newer approach, which is to reach out to women through the multivitamin route rather than just focusing on folic acid and pregnancy and we're hoping through the evaluation that's done at that site that it will lend some information about whether or not it's effective. I don't know that we have information yet on whether -- on the effectiveness of that, is that right, Anna Bess?

ANNA BESS BROWN: I would agree with that, Denise. We're hoping to look at how effective this campaign is and we're in the process of designing that evaluation now. So we hopefully will have some data in a couple of years to share with you. But right now, no, I don't know of any specific study about multiple messaging. That's a really interesting question.

ADRIANE GRIFFEN: Thank you for that. Unless we have another question from the audience, which if you had a burning issue, write in now. We are then about to close. We want to thank all of the presenters. We would like to thank the Division of Healthy Start and the perinatal services webcast team for having this session on folic acid awareness. It's folic acid awareness week and a great time to remember the folic acid message and to keep that message current and alive in all that you do. For more information on what others are doing during folic acid awareness week check out the national council on folic acid site at [www.folicacidinfo.org](http://www.folicacidinfo.org). We want to remind the participants to complete the

evaluation at the end of the webcast. To do that you go to [mchcom.com](http://mchcom.com). OK, great.  
Thanks very much. I'm going to pass this back to Johannie.

JOHANNIE ESCARNE: I would also like to thank our contractor, the Center for the advancement of distance education at the University of Illinois at Chicago School of Public Health for making all this technology work. Today's webcast will be archived and available in a few days on the website [mchcom.com](http://mchcom.com). We encourage you to let your colleagues know about the website. Thank you and we look forward to your participation in future webcasts.