Group 1 Women Taking No Vitamins**/Intend Pregnancy Within A Year African American/White Women Atlanta, Georgia March 4, 1998 (10 AM)

PARTICIPANTS:

3 women between 26 and 35 2 with children 1 African American, 2 white

**One woman revealed during the discussion that she was taking a liquid multivitamin everyday because she was trying to get pregnant and her doctor had told her that she needed to get enough folic acid and iron. This was not identified during the screening and recruiting process.

FINDINGS:

Vitamin behavior:

- As noted, one woman said she was trying to get pregnant so she takes a liquid multivitamin because her doctor advised her of the importance of getting enough folic acid and iron.
- The other two participants said they have taken some vitamins in the past "when needed" or "when not eating correctly" but that it is not necessary at the present time.
- More energy after pregnancy and relief from PMS symptoms were reported as benefits from vitamins.

Barriers to taking a multivitamin daily:

Women reported the following barriers:

- "It isn't important enough to remember."
- "I forget."
- "In my mind, every other day would be OK."
- "I don't like taking pills."

- "You can tell it's all chemicals and not natural." (2 women thought this)
- "There are some vitamins that your body shouldn't have too much of [such as zinc]."
- "Vitamins make you more fertile."
- Upset stomach
- Too expensive
- Bad taste

Motivators/facilitators for taking multivitamins every day:

Women reported the following benefits as motivators to taking vitamins:

- Helps you stay healthy by boosting your immune system
- If you're not eating right, vitamins give you "pep."

Response to potential motivators for taking daily multivitamins:

Following open-ended discussion of barriers and motivators, participants were given a list of potential motivators for taking a multivitamin every day and asked to check off the ones that might motivate them personally. The list included:

If someone I trust suggested it.

If I were trying or hoping to get pregnant.

Because I know I don't always eat right.

If I were sexually active.

To prevent birth defects in case I have a baby one day.

To help prevent heart disease, the #1 killer of women.

To help me feel my best today.

In case I got pregnant without planning to.

The three women in this group chose:

- 'If someone I trust suggested it.' (The participant who chose this pointed out that she had taken Vitamin C when her sister recommended it.)
- 'Because I know I don't always eat right.' (The participant who chose this said

she currently eats right and does not need a multivitamin.)

• 'If I were trying or hoping to get pregnant.' (The participant who chose this was trying to get pregnant and was taking a multivitamin every day.)

Awareness of link between folic acid and birth defects:

- Two participants said they had heard about folic acid only *after* pregnancy or birth. At least one participant was aware of a link between folic acid and birth defects.
- When read a statement about the importance of getting enough folic acid for several months before becoming pregnant, there was interest in what is meant by several months.
- Comments included:

"If I thought there was something I could have done to have a healthy baby, but didn't, I could never live with that."

"There are a lot of children who are fine [whose mothers didn't take it], but I would take it now."

"I would take it but would question whether I could get it through my food."

Awareness of sources of folic acid:

- Participants had heard that folic acid comes from different sources including:
 - --Orange juice commercials (this was common in the African American/white groups)
 - --Health class
 - --Doctors who said to take folic acid or Vitamin B9 and iron
 - -- Fruits and vegetables
- When told about the large quantities of foods that would have to be consumed to get enough folic acid, participants thought it would be challenging to get enough folic acid from their diets. However, one woman still thought she could get enough from her healthy diet.

Influence of health care providers or others on vitamin behavior:

- One woman said she would not ask her family doctor because he would tell her to 'just pick one' instead of advising her which one to take.
- Another said she might talk to a family doctor, gynecologist or a homeopathic doctor.
- The third woman said she would trust a close friend or doctor to advise her on vitamins.
- No one thought they would talk to a pharmacist about vitamins. One woman said she would compare ingredients herself and would look for something natural.

Reactions to PHS statement:

During each group, the following statement was read:

Public health experts recommend that all women of childbearing age who are capable of becoming pregnant consume .4 mg. of folic acid daily to reduce their risk of having a pregnancy affected by spina bifida or other neural tube defects.

- No one had heard of neural tube defects.
- Everyone had heard of spina bifida.
- When told that another neural tube defect is an encephaly, no one had heard of it. One woman asked, "Is this like encephalitis?"
- Everyone agreed that the statement includes them as women capable of becoming pregnant. One woman said she was now convinced to take folic acid and that she needs to do it now because her last pregnancy was unplanned.
- One woman wanted to know how much folic acid is needed after childbearing age.

Reaction to different terms for referring to folic acid:

Women were told that there are multiple terms that all mean the same thing: folic acid, Vitamin B9, folate, and B vitamin folic acid. They were asked if they preferred one term over others. Participants said:

- Folic acid with no reference to B vitamins is a better term because B vitamins are associated with energy, not birth defects.
- Folic acid is better because it is more familiar to people.

Reaction to images of babies with spina bifida and anencephaly:

During the groups, women also looked at two images of babies affected by neural tube defects. One was a drawing of a baby with anencephaly; one was a photograph of a baby with spina bifida.

- There were mixed reactions to the images. Two women thought the pictures would make information have more impact. One woman said she "didn't need the pictures."
- There was general agreement with one woman's comment about limiting use of the pictures to print material that would not be seen by the general public. Another woman said that family planning clinics would be a good place to have the pictures.

Suggestions about channels for reaching women with this information:

- TV, but not with the pictures
- Women's magazines
- Pharmacies
- Clinics
- Health departments
- Posters in doctors' waiting rooms
- March of Dimes
- Friends and family members
- Public Health Service

Most important information to give women:

- That it is important to get enough folic acid *before* pregnancy.
- Folic acid is beneficial even if you're not pregnant.
- Participants also expressed "amazement" that more information about this is not already "out there" and how much they had learned from the focus group discussion.
- One woman noted that the words "capable of becoming pregnant" are important to help women understand that folic acid is important whether or not you are planning a pregnancy.

What would convince women to take a multivitamin daily:

At the end of each group, women "re-visited" the list of potential motivators to taking a multivitamin daily and discussed these in the context of what might convince more women to take a multivitamin.

• These three participants chose: to prevent birth defects; if someone I trust suggested it; and feeling my best.

Group 2 Women Taking Some Vitamins/Never Intend Future Pregnancy African American/White Women Atlanta, Georgia March 4, 1998 (5:30 PM)

PARTICIPANTS:

9 women; 3 between 18-25; 6 between 26-35 None with children 5 African American: 4 white

FINDINGS:

Vitamin behavior:

- Participants said they had taken different kinds of vitamins or minerals such as C, calcium, or multivitamins such as Centrum for as long as all their lives or for short periods of time such as during pregnancy. One said she had taken a prenatal vitamin during pregnancy supplemented by folic acid, calcium and magnesium.
- There were mixed reactions about whether there is a noticeable effect from taking vitamins and minerals. One woman said she does not notice a difference; others said they had heard that you eat more, but another woman said she eats less because she is getting nutrition from the vitamin.
- One participant said she may take a vitamin for a few days "and then stop because I'm pretty healthy."
- To choose the vitamins or minerals they have taken, women said they:
 - --Rely on "mom's advice."
 - -- Read labels and compare.

Response to potential motivators for taking daily multivitamins:

Women reviewed the list of potential motivators to taking a multivitamin daily (see page 4 for the list).

In this group, several participants chose multiple motivators. To 'feel my best' and 'prevent heart disease' were chosen most often. Others that were chosen more than once included: 'if someone I trust suggested it,' 'because I don't always eat right' and most of the motivators related to pregnancy. All of the motivators were chosen at least once. Comments included:

"If my frame of mind was getting pregnant, then 'if I was hoping or trying to get pregnant' would be my motivator."

"Vitamins give me a stomach ache, but I could do it if it's good for baby."

- 'To feel my best' meant:
 - -- "Getting up in the morning and doing what I have to."
 - -- "Not tired."
 - -- "Like you can do everything you have to."

Barriers to taking a multivitamin daily:

• Forget

Some women said that keeping vitamins in a certain place has helped them remember. Places where vitamins are kept included: kitchen table, bathroom, dresser drawer, nightstand, and totebag taken to work everyday.

- Cost
- Stomach pain
- "Some people don't believe that multivitamins are the cure-all."
- "Multivitamins are harder to swallow than Vitamin C or E."
- "When you're in your mid-20s, you don't think of it everyday."
- "Haven't made it a habit."

Awareness of link between folic acid and birth defects:

- Participants had heard of folic acid and some knew that "pregnant women should take it", but no one knew what it is for.
- Women associated the words "birth defects" with:
 - --Down Syndrome
- --Limb or mental disorder
- --Fear
- Women wanted to know what birth defects folic acid prevents.

Awareness of sources of folic acid:

- Participants mentioned vegetables and orange juice as sources for folic acid.
- Two women said that they drink enough orange juice at least four cups per day
 to get folic acid without taking a multivitamin.
- One woman noted that she would "prefer to get folic acid from food but I know I don't get it all."
- One woman said that she talked to her gynecologist about having low energy and he said to make sure to take a multivitamin.

Role of health care providers and other influences:

- Most of the women said that they would talk to their doctors about planning a pregnancy.
- Most also said that a doctor would have to tell them that they needed to take vitamin. One woman said if a doctor suggested taking a vitamin when she was not planning to become pregnant, she would ask:
 - "I'd ask why can't I get it some other way, like from fruit."
- A few women said they might talk to someone like a pharmacist or staff at the health food store.

Reactions to PHS statement:

- None of the women had heard of neural tube defects.
- No one was surprised that 50% of pregnancies are unplanned. Most participants thought that even more pregnancies were unintended.
- Most participants seemed to agree with one woman who said:

"I am capable of becoming pregnant, but not interested, so what's the motivation for me to take a multivitamin?"

Reaction to different terms for referring to folic acid:

- Reaction to the different terms for folic acid was very mixed:
 - "Folate sounds more natural. Acid is a caustic word. B vitamin folic acid is too long."
 - "The most user friendly is folate or Vitamin B9."
 - "'Acid' sounds like a bad drug."
- Three women chose Vitamin B9.

Reaction to images of babies with spina bifida and anencephaly:

- There was very little reaction to the pictures of babies with neural tube defects. No one voiced strong objections.
- One person thought that the pictures would only be meaningful to women who are planning to become pregnant and would not prompt anyone else to become concerned about folic acid.

Suggestions about channels for reaching women with this information:

• Women cited the following as places they would notice information about folic

acid:

- --Gynecologist
- --Health section of stores
- --Health education in school
- --Magazines
- The most credible sources would be:
 - --Doctors
 - -- A national association relevant to birth defects
 - -- University

Most important information to share with women:

• The most important information women need is to know that folic acid is necessary before pregnancy.

What would convince women to take a multivitamin daily:

- When participants reviewed potential motivators near the end of the group, most said the most influential ones were related to preventing birth defects. For example, they chose:
 - -- 'To prevent birth defects.'
 - --'If I were sexually active.'
 - -- 'In case I got pregnant without planning to.'
- A few women still thought they would be more motivated to take a multivitamin by a link between folic acid and preventing heart disease.

Group 3 Taking No Vitamins/Intend Future Pregnancy African American/White Women Atlanta, Georgia March 5, 1998 (6 PM)

PARTICIPANTS:

8 women; 4 between 18-25; 4 between 26-35

5 with children

4 African American; 4 white

FINDINGS:

Vitamin behavior:

- Several women said they only took vitamins during pregnancy. These women and others who said they had tried one or more vitamins at one time, but no longer take them, stopped because:
 - -- "They made me nauseous." (2 women)
 - -- "They're too big." (2 women)
 - -- "I thought they'd pick me up; they didn't." (2 women)
 - -- "They never made me feel any different."
 - -- "I had to stop taking Vitamins E and C because of high blood pressure."
 - -- "You can get too much of certain vitamins."

Barriers to taking multivitamins daily:

- Constipation
- Contradictory information about what they will do for you
- Can get everything from food
- Do not think about it

• Vitamins are not natural

Response to potential motivators for taking daily multivitamins:

- Several women seemed to think that people who take vitamins are "anal."
- One woman said she would take vitamins if they would cure PMS.
- When women reviewed the list of potential motivators, they chose several. Most common were preventing birth defects and heart disease, and 'to feel my best.'
- 'To feel my best' meant well-rested, energized, peppy, without PMS.
- A few women also said that none of the motivators would be convincing to them unless there was "absolute proof" that they do what the motivators say.
- However, women did seem to believe in the importance of taking prenatal vitamins during pregnancy. At least one woman was aware that folic acid would reduce the chance of a baby being born with spina bifida.

Awareness of link between folic acid and birth defects:

 Most of the women had heard of folic acid, but not about its link with reducing birth defects. A few participants had seen orange juice commercials with information about taking folic acid before pregnancy.

Awareness of sources of folic acid:

• When told about food sources of folic acid and the large quantities one must consume, several women said they would take a multivitamin — if they were concerned about getting enough folic acid. A few said they would also try to eat right along with taking a vitamin.

Reactions to PHS statement:

• No one had heard of neural tube defects or anencephaly. Most participants had heard of spina bifida.

- Most of the women said they would not be likely to be concerned unless they were actually planning a pregnancy, even though half of all pregnancies are unplanned.
- However, one woman said the information made her consider taking a
 multivitamin now even though her children were born healthy despite her not
 taking a multivitamin prior to conceiving them.

Reaction to different terms for referring to folic acid:

 Most of the women recommended using folic acid because they had already heard of it.

Reaction to images of babies with spina bifida and anencephaly:

• This was one of the few groups in which more women were opposed to the pictures than in favor of them. Participants thought the pictures were designed to "scare," "intimidate," or "brainwash" them. Other comments included:

"The pictures are very graphic, but you've scared me into taking a vitamin. I'm not planning to get pregnant, but I might take a vitamin anyway."

Suggested channels for reaching women:

- Doctors
- Pharmacy
- Women's magazines
- Health centers
- Internet
- Insurance companies
- School health classes (so that teens receive this information)
- One woman said she had been to a nutritionist for advice about what she needs to
- Famous people would not be credible sources; "real people" would be.

Most important information for reaching women:

- How difficult it is to get enough folic acid from food
- Consequences of not taking folic acid

What would convince women to take a multivitamin daily:

• When women looked at the list of motivators again, most chose 'to prevent birth defects.' However, someone added that her doctor would have to tell her before she would take a vitamin. Another woman said:

"There's nothing you can tell me. I'd have to be convinced myself."

Group 4 Taking No Vitamins/Intend Future Pregnancy African American/White Women Atlanta, Georgia March 5, 1998 (8 PM)

PARTICIPANTS:

8 women; 2 between 18-25; 6 between 26-34

5 with children

4 African American; 4 white

FINDINGS:

Vitamin behavior:

- Several women had been pregnant and taken a prenatal vitamin at that time.
- Other reasons women cited for taking vitamins or minerals at some time included:
 - -- To promote hair growth
 - --For calcium as a kid ("but vitamins don't agree with me now.")
- Many comments were about reasons not to take vitamins:

"It is not part of my daily routine."

"I don't believe in taking pills everyday."

"I've thought about taking them to help with weight loss but I'm not moved to take pills every day."

"I eat pretty well. I'm active. I don't think I need it."

Barriers to taking a multivitamin daily:

• Cost

- Difficulty knowing which one to choose from so many available.
- Need more information about what vitamins do.
- Not necessary to take vitamins.
- Vitamins cause weight gain.

Motivators/facilitators for taking a multivitamin everyday:

- Energy
- Makes you feel good
- To clean out your system
- As a shortcut to not eating right

Response to potential motivators for taking daily multivitamins:

- All the motivators were chosen at least once except for 'if I were sexually active.' 'To prevent birth defects,' 'to prevent heart disease,' and 'to feel my best' were chosen most often.
- 'Someone I trust' included doctors or friends.
- 'Feel my best' was chosen several times. Women said it meant energetic, awake, not stressed out.

Awareness of link between folic acid and birth defects:

- About half of the participants said they had heard about folic acid and birth defects. Two women said they had specifically heard that folic acid is linked with preventing spina bifida.
- This group also mentioned hearing about folic acid from orange juice commercials that suggested folic acid is important to take before pregnancy.

- One woman wished she could get folic acid in her Depo-Provera shot.
- One woman said she had not known about folic acid and would have taken it before she got pregnant with her son if she had known.
- Other women seemed unlikely to be concerned about folic acid unless specifically planning to become pregnant right away. For example:
 - "I want to have another baby, but I'm not planning to now so I probably wouldn't stay committed to taking folic acid now."

Awareness of sources of folic acid:

- Most women assumed that folic acid is in foods such as greens, oranges, broccoli, and breads.
- Upon learning about food sources and quantities that must be eaten to obtain folic acid from foods, some women said they would still try to get it from their diets while others said that they would take a multivitamin or rely on a combination of diet and vitamins.

Influence of health care providers or other influences on vitamin behavior:

- Women said they had relied on the following to choose the vitamins they had taken:
 - --Mom
 - --Instructor in birthing class
 - --Advertising for Centrum ("A to Z")
 - -- An aunt who is a pharmacist

Reactions to PHS statement:

- Most women said they had not heard the term neural tube defects or an encephaly.
- A few women seemed to be convinced by the PHS statement to start taking vitamins. They said:

"I might just go out and buy some vitamins."

"You don't usually know you're pregnant until four weeks [so maybe I should start now]."

• Some participants were more skeptical:

"Sounds great but I'm a skeptic. If it's gonna happen, it will. I know it doesn't hurt to take vitamins, but I'm not convinced."

"It's a pretty powerful statement. A lot of women will go out and do this. Something needs to back it up — 'GNC has done this kind of research' or 'Public health experts.'"

Reaction to different terms for folic acid:

- Several women chose folate.
- Some participants voiced concern about both folic acid -- "[the word] 'acid' sounds like something you may not want to take" and Vitamin B9 because people object to vitamins.
- One woman said it does not matter which term is used because they were all new to her.

Reaction to images of babies with spina bifida and anencephaly:

• Most participants seemed to think it would be useful to have something visual:

"Most people are visual. This is like the 'brain on drugs' commercial."

"Pictures are effective. It raises emotions."

"It's like the drinking and driving commercial."

Suggestions about channels for reaching women:

• Doctors' offices

- Vitamin rack at the store
- Internet
- Buses
- Women's magazines
- The most credible sources would be:
 - --Surgeon General
 - --Doctors
 - -- March of Dimes
 - --"Real people" not celebrities
- Least credible would be a vitamin company

Most important information women need:

- "Take care of yourself."
- "Why bring a sick child into the world? Start from the beginning."

What would convince women to take a multivitamin daily:

- When participants looked at the motivators list again, several chose 'to prevent birth defects.' One said she equates it with immunizing children after birth "it's like immunizing before birth."
- One participant suggested linking the birth defects message with the 'feel my best' message.

Group 5 Taking Some Vitamins/Intend Pregnancy Within A Year African American/White/Hispanic Women March 10, 1998 Houston, Texas (5:30 PM)

PARTICIPANTS:

6 participants: ages 23, 25, 28 (2), 31 (2)

5 with children

3 African American; 2 white; 1 Hispanic

FINDINGS:

Vitamin behavior:

- Even though participants reported taking some vitamins or minerals at least some of the time, most of the opening discussion was about reasons they do not take them more often, rather than about motivators or benefits:
 - --Forget
 - -- Cause belching
 - -- Taste like iron
 - --Increase appetite and cause weight gain and "make you fat"
 - --Increase fertility
- One woman said her doctor told her to take prenatal vitamins three months before pregnancy, but not why.

Motivators/facilitators to taking vitamins:

- Before reviewing the list of potential motivators, women commented on why prenatal vitamins are important. They said:
 - "It gives your body a head start for when the baby comes together."
 - "While you're pregnant, you need them because the baby takes a lot from you."

• When the women reviewed the list, a 'to prevent birth defects' was a common choice in this group. One woman said her doctor was concerned about folic acid and birth defects and recommended that she drink orange juice. Another woman said:

"I've heard if you take vitamins with iron before you get pregnant, it can help prevent birth defects in the baby."

- 'To prevent heart disease' was chosen by several women.
- 'To feel my best' was chosen by a number of women and was usually associated with feeling less tired, more energetic, not lazy, and/or not sluggish.

Barriers to taking a multivitamin daily:

- Weight gain
- Don't need them
- Cost
- Don't like to take "medications" (Although multivitamins are not medication, some women perceived them to be medication.)
- No one in this group voiced any concern about vitamins not being 'natural.'

Awareness of link between folic acid and birth defects:

- A few women were aware of the link between folic acid and birth defects.
- Information about this link evoked other reactions as well:

"I never thought about taking a certain vitamin when I was trying to get pregnant."

"I was told vitamins get you fertile."

"Is it too late to take folic acid when you're already pregnant?"

Awareness of sources of folic acid:

- Women mentioned greens and "anything with acid like orange juice" as sources of folic acid.
 - Many believed they could get it from the foods described as sources, even in the large quantities necessary.

Influence of health care providers or other influences on vitamin behavior:

• Women mentioned their doctors and mothers as primary influences on whether or not they take vitamins. Doctors were mentioned mostly in reference to prenatal vitamins during pregnancy, although one woman mentioned talking about vitamins with her chiropractor.

Reaction to PHS statement:

- No one had heard of neural tube defects or an encephaly.
- While everyone agreed that she was capable of becoming pregnant, most women agreed with participants who said:
 - "'50%' doesn't affect my decision to take it. I find accidental pregnancies hard to believe. They're preventable."
 - "I want to have a healthy baby, but I'm lazy. [Taking a vitamin] is a hard habit to get into."
- One participant was persuaded by the information to plan on taking a multivitamin. She said:

"I'd probably take a multivitamin because I know we're trying to get pregnant in a few months. I'm going to ask my doctor about this now..."

Reactions to different terms for referring to folic acid:

• There was little agreement about the best term to use. Participants recommended:

- --Vitamin B9 because it has the word vitamin
- --B vitamin folic acid
- --Vitamin B9 or folate.
- --B vitamin "because folic acid is too long"
- -- "Folic acid doesn't sound like a vitamin."

Reaction to images of babies with spina bifida and anencephaly:

- Opinions about the pictures were divided. About half of the women thought it was a good idea. Others thought that the pictures were not necessary. Comments included:
 - "Pictures would make you think more than words."
 - "The pictures have convinced me totally."
 - "Pictures aren't necessary. Knowing it prevents birth defects is enough."

Suggested channels for reaching women:

- Women recommended:
 - -- Doctors' offices
 - --Library
 - -- Magazines
 - -- Family planning clinics
 - --"Organization for birth defects" (However, awareness of March of Dimes was low.)
 - --Ministers
 - --Parents with a neural tube defect-affected child.
- Women also said that a "famous person" would not be credible.

What would convince women to take a multivitamin daily:

• Some women thought information about the role of folic acid in preventing birth

defects was most important. However, others were unconvinced that they should be concerned about folic acid unless planning a pregnancy. One woman said:

"Why would I take it if I wasn't planning on getting pregnant? Is it 100% effective in preventing neural tube defects?"

• When women looked at the motivators list a second time near the end of the group, they chose a mix of messages as likely motivators to taking a multivitamin. A few said that they were convinced by the information discussed in the group to start taking a multivitamin. Comments included:

"'To prevent birth defects' is most important but to get me to take it every day, it would have to be more 'to feel my best.'"

"'Because I don't always eat right' would work for some women who aren't planning to get pregnant."

"I would trust someone from the health department."

I'm convinced by the birth defects information."

"I'll try to take one every day. Maybe put them in a different place to help me remember."

"I know I'd feel bad if I didn't take them daily now."

Group 6 Taking No Vitamins/Never Intend Future Pregnancy African American/White/Hispanic Women March 10, 1998 Houston, Texas

PARTICIPANTS:

8 women; ages 20, 23, 25 (2), 29, 31, 32, 35

5 with children

2 African American; 4 white; 2 Hispanic

FINDINGS:

Vitamin behavior:

• Some of the women said they had taken vitamins during pregnancy or when they were children, but not otherwise. Several participants said that their mothers tell them to take vitamins. Comments included:

"I don't take any now though my mom says to for energy."

"I've never been a vitamin person. It's not part of my routine. Mom says to; she takes them and really believes in it."

"I never took them except when I was little."

"Mom tells me to.. I've tried but I don't like them. My sister takes them."

"I took prenatal vitamins but dropped the habit. I started those about a year before I got pregnant when my girlfriend's mom suggested it."

• Women also identified some specific reasons for not taking vitamins:

"They make me feel nauseous."

"They're expensive."

"To get all the vitamins they say you need, you would have to take at least 10 kinds."

"Iron make me sick, so I bulk up on leafy greens."

Barriers to taking a multivitamin daily:

- No time
- Cost
- "I would if there was one without iron."
- "I don't like to take medication. If I don't feel the need, why take it? And there have been reports about vitamins that increase metabolism like speed."
- No one mentioned a concern about vitamins not being natural.

Motivators/facilitators for taking a multivitamin daily:

- Women identified several reasons that some women take vitamins. Two participants were aware that folic acid is important before pregnancy "for the spinal cord of the baby."
- Other reasons cited included:
 - -- If they are not eating right
 - -- They think they will have more energy
 - -- They think it may lower the risk of cancer
 - --It is part of working out

Response to potential motivators for taking a multivitamin daily:

- Messages related to pregnancy or preventing birth defects were chosen most often as motivating.
- Other motivators were also chosen, especially 'Because I don't always eat right' and 'To prevent heart disease.'

Awareness of link between folic acid and birth defects:

- One woman was aware that folic acid is linked with reducing the risk of spina bifida. Another thought it was related to "making the spinal cord straight, not curved." Awareness was credited to friends, orange juice advertising, or "books about pregnancy."
- Other women said they had heard about folic acid but not about why it is important. One woman said her doctor told her to take a vitamin, but not about why.
- Some women were skeptical about the information or believed it is not important if they are not planning a pregnancy:

"I didn't know that about folic acid. I didn't take it when I was pregnant. My children came out healthy as a horse."

"I took prenatal vitamins faithfully but still had a premature baby at six months."

"If I was planning to have a baby, I'd take it, but I'm not thinking about having a baby now, so I probably won't. It gives me something to think about for the future."

"I don't think people think about taking vitamins until you're pregnant."

Awareness of sources of folic acid:

- Participants thought that folic acid can be obtained from green leafy vegetables, orange juice, and prenatal vitamins.
- When told about the large quantities of foods that must be consumed to get enough folic acid, participants had diverse reactions, ranging from concern to skepticism:

"This is where I get confused. Maybe the good Lord is saying we don't need this vitamin if we have to eat 17 bananas to get this amount."

"I'd be sick if I had to eat all that."

"I don't know if there's enough evidence for me. My mom didn't eat 17 bananas a day and had all healthy babies."

"I'd probably go with the vitamins."

"If I had to, I'd take a pill if I got a disease or was planning to get pregnant." Influence of health care providers or other s on vitamin behavior:

• Several women reported that doctors had told them to take a vitamin — usually a prenatal vitamin — but not why it was important. Others said they might take a vitamin if a doctor recommended it:

"My doctor said we're supposed to take it, but never said why."

"If a doctor told me to take a vitamin, I probably would, but they never do. I feel like I don't need a vitamin. I feel fine."

- Other women said that their mothers have recommended vitamins but no one had taken her mother's advice.
- One woman had asked her pharmacist about vitamins for her son.

Reaction to PHS statement:

- No one had heard of neural tube defects or an encephaly, but a few women recalled hearing about "babies without brains in Brownsville."
- There were several comments about not needing to worry about pregnancy because of a partner's vasectomy or not being sexually active.
- One woman was very concerned about the information that folic acid is needed before pregnancy. She said:

"If food is not enough daily, should I be taking folic acid now to have a baby in 10 years? This is scaring me."

Reaction to different terms for referring to folic acid:

• Opinion was divided about whether to use Vitamin B9 or folic acid. Some women thought that Vitamin B9 would evoke the same concerns or barriers they had identified about taking vitamins moreso than a term such as folic acid:

"Why call it a vitamin if you have a lot of women who don't like to take/won't take vitamins?"

Reaction to images of babies with spina bifida and anencephaly:

Most women thought that pictures "would open people's eyes" and that they could
be used in brochures for doctors' offices or women's magazines. However, there
was some concern about making sure that the pictures would not be seen by
children. One women said:

"[Using pictures] is iffy. I wouldn't want my niece or nephew to see this."

Suggested channels for reaching women:

- Health classes in school
- Surgeon General
- "Shows like 20/20 or 48 Hours. I feel those shows do good investigative work."
- "I'd believe a doctor."
- "My pharmacist: they're trained to know medication."
- "An independent research group, not a pharmaceutical firm trying to make money."
- Gynecologists:

"I probably wouldn't pick up a brochure from a rack. But if this message is so important, your gynecologist should tell you at your annual visit."

• A few women thought someone like Oprah would be a credible source, but others wanted a source more likely to be trained or knowledgeable about health issues.

What would convince women to take a multivitamin:

- For energy
- If it was easy to do (such as if "mixed with Diet Coke because that's what I drink in the morning.")
- "If I knew I wouldn't get sick."
- When women looked at the list of potential motivators again near the end of the group, they still chose multiple motivators, including both those related to pregnancy and others such as preventing heart disease or 'to feel my best.'
- Two women said they were considering it. One of these commented:

[&]quot;I'm going to stop on the way home to get some."

Group 7 Taking Some Vitamins/Intend Future Pregnancy African American/White/Hispanic Women March 11, 1998 Houston, Texas

PARTICIPANTS:

8 women; ages 18, 19, 24, 25, 29, 32, 33, 34

5 with children

3 African American; 3 white; 2 Hispanic

5 with children

FINDINGS:

Vitamin behavior:

- These participants reported taking several kinds of vitamins "sometimes" including Centrum or B12 (usually for energy) or other vitamins such as E (for hair, skin, and nails), B6 (to help with nausea or for energy) and others.
- Several women said that vitamins increased their appetites and made them gain weight.

Response to potential motivators for taking a multivitamin daily:

• When women reviewed the list of motivators, most chose several. The most common were preventing birth defects and heart disease. There were a few questions about whether vitamins were important when *planning* a pregnancy.

Barriers to taking a multivitamin daily:

- Forget
- No time
- Expense

- Some may be allergic/have reactions
- Don't need vitamins if eating well
- Some people want to stay natural
- "I don't see vitamins as a help in preventing birth defects. Information changes. We may find that they cause birth defects or heart disease in a few years, so you can't trust a vitamin."

Awareness of link between folic acid and birth defects:

• Most of the women had heard of folic acid, but not what it is for. They said:

"I didn't know it was a fact that folic acid can help prevent birth defects. That's why I didn't check it on the [motivator sheet.]"

"I'd take it if my doctor recommended it. Otherwise, I wouldn't just take it over the counter."

"This is surprising information. How did they prove it?"

Awareness of sources of folic acid:

- Participants thought they could get folic acid from vegetables with acid or oranges.
- When women heard how much food with folic acid must be consumed to get enough folic acid, there were mixed reactions about what they would do. Some said they would take a vitamin; others thought they would try to eat better. They said:

[&]quot;A lot of the stuff we eat throughout the day has folic acid."

[&]quot;I'd rather take a vitamin. You don't always eat right, so it's easier."

[&]quot;I could do it from food. Our house is all fruits. I love broccoli and peas."

[&]quot;I'd take the vitamin. You can't get too much."

Influence of health care providers or others on vitamin behavior:

- All of the women said that no doctor had ever mentioned folic acid. One woman said she would ask her doctor about this if she was planning to become pregnant. Everyone said they would take vitamin if a doctor recommended it, even if they were not planning to get pregnant.
- One said that a pharmacist recommended Centrum for fatigue.

Reactions to PHS statement:

- One woman said she had heard of neural tube defects in a health class.
- A few participants had heard of spina bifida, but no one had heard of anencephaly.
- Although all the women saw themselves as capable of becoming pregnant, opinions were divided about taking a multivitamin when not specifically planning a pregnancy.

Reaction to different terms for referring to folic acid:

- Opinions were divided about which term would be clearest. They said:
 - --Folic acid "makes me think of something that would give me gas."
 - --Folic acid "isn't enough. I never heard of it before so B vitamin folic acid is clearer."
 - --Vitamin B9 "because B12 makes me think of energy."
 - --B9 "makes me think of something good."
 - --B9 "would get my attention."

Reaction to images of babies with spina bifida and anencephaly:

Reactions were mixed:

"Maybe it would convince someone who has never had kids, but not me. All my kids are healthy [even though I didn't take vitamins.]"

"If you wanted to convince me to take it, you'd have to show me the picture and say, 'If you don't take folic acid, your baby will be born like this.'"

"If a doctor advises me, I'll take it."

"Show a normal baby next to one with a neural tube defect."

"I don't think it's necessary. The percent of babies with these is small, so why do we need to see this?"

"If you're gonna get pregnant, you'd worry about this. You should see it."

"Think about the amniocentesis test. You know what a Down Syndrome baby looks like so you have a picture in your mind. You want to prevent it."

Suggested channels for reaching women:

- Doctors including pediatricians or family doctors. However, one woman said: "I don't trust doctors. They try to rip you off. I'd have to hear it from my family or a doctor that my family knew a long time."
- Magazines
- USDA or FDA
- Internet
- Friends
- Mom
- Not famous people such as basketball players "they're just getting paid."

What would convince women to take a multivitamin daily:

• When women reviewed the motivators again near the end of the group, more chose preventing birth defects or other pregnancy-related messages than before. One woman said:

"If I was sexually active and had a possibility of getting pregnant. A lot is going through my mind. I am conflicted. Now that I know that folic acid prevents birth defects, I'm going to take my multivitamin every day."

• However, several said they would not be motivated by the birth defects messages:

"I'd take it only if I was planning to get pregnant or I knew someone with a neural tube defect."

If I'm not thinking about getting pregnant, I'd pick 'feel my best.' I wouldn't even look at 'to prevent birth defects' if I'm not thinking of getting pregnant."