

**USDA FSIS FSES
FTEC “Boomburbs”
Communications
Concept Testing**

REPORT

March 2003

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Introduction

Best Start Social Marketing of Tampa, Florida was contracted by the Baldwin Group to conduct concept testing as part of a social marketing analysis for the USDA's Food Thermometer Education Campaign (FTEC). This project originates from the Food Safety Education Staff, a division of the Food Safety and Inspection Service. The goal of the project is to develop and implement a communications campaign. The initial target for this campaign is a population segment composed of upscale suburban parents, characterized as "Boomburbs," with children 10-years old or younger. Concept testing was designed to determine how to develop messages that are intended to encourage "Boomburbs" to use meat thermometers when cooking.

Concepts were developed in the form of print advertising that target the intended population segment and were provided to Best Start Social Marketing. These concepts were to be tested in one-on-one interviews with "Boomburbs" families in their homes. This method was ineffective. Letters were sent to a pre-selected list of members of the "Boomburbs" segment of the population in Hillsborough County, Florida. After receiving no responses from the 606 invitations that were mailed, approximately 25 percent of the list was called to extend a personal invitation. Among those called, four people agreed to an appointment. The conclusion of screeners was that this method for contacting subjects was too similar to that used by telemarketing organizations. This method for recruitment was abandoned.

A follow-on strategy of holding a "special event" at a local retail outlet, offering gift certificates or stipends and providing refreshments, was implemented. Williams Sonoma agreed to support this effort. Three events were scheduled and invitations were mailed. Response to this recruiting method was high.

Methods

This section will describe the methodology for recruitment of participants and data collection.

Recruitment

Williams-Sonoma was selected because it is a retail store that typically appeals to the target population, has an obvious association with cooking, and provides an unusual and comfortable atmosphere for conducting interviews. The site provided a feeling that this was a special situation. Scheduling subjects for specific times, offering a generous stipend of \$40 and providing token gifts that included a digital thermometer, and limiting participation to the first 100 respondents also created a sense of importance and urgency among subjects.

Three pretesting events were scheduled at Williams-Sonoma for the following days:

Wednesday, February 12, 2003 - 7:00pm to 9:00pm

Thursday, February 13, 2003 - 7:00pm to 9:00pm

Sunday, February 16, 2003 - 6:00pm to 8:00pm

An existing database consisting of 5,918 individuals, with contact information for “Boomburbs” residing in Hillsborough County, was used for recruitment. “Boomburbs” were segmented into 10 subgroups based on differentiating characteristics.

Utilizing the contact information in the database, invitation letters were mailed to “Boomburbs” throughout Hillsborough County to recruit them for the pretesting events. In the letter, participants were informed about the event and of a \$40 cash stipend and a special gift as compensation for their time and effort. The special gift, a food thermometer, was not revealed in the letter to limit biasing the data collection process. (See appendix A – invitation letter).

The invitation letters were mailed out in two separate waves. Each wave consisted of 600 letters. The first wave was mailed on January 24, 2003. The second wave was mailed on February 5, 2003. A certain percentage of letters was sent to each subgroup. The percentage was based on each subgroup’s composition in Hillsborough County.

The letter encouraged participants to call and reserve a date and time for a pretesting interview. Ninety-seven individuals responded to the invitation letter. Table 1 illustrates the response rate based on the number of letters mailed and theoretically delivered and the number of respondents.

Table 1: Response Rate

MAIL WAVE	Theoretically delivered	Undelivered or Returned mail	Respondents	Response Rate
<i>First Wave</i>	573	27	48	8.4%
<i>Second Wave</i>	576	24	49	8.5%

Sample

A total of 59 participants were interviewed in Hillsborough County on February 12, 13, and 16. Eighty-one out of 97 respondents were scheduled for interviews. The main reason for not scheduling an interview was conflicts with the days and times available. Table 2 illustrates the number of participants scheduled and interviewed during the three pretesting events.

Table 2: Number of Interviews

	February 12	February 13	February 16
Scheduled	26	29	26
Interviewed	19	18	22
‘No shows’	4	11	4

Pretesting Protocol

On February 12th and 13th, participants were shown all four primary concepts and asked to select the message they would like to read more about. This process was performed twice with each participant. On the first round, they were shown all four concepts. On the second round, they were shown the remaining three concepts.

During each round, participants were shown the prototype corresponding to the concept they had previously selected. At this point, the specific prototype was pretested. This pretesting process was repeated with the second concept selected during the second round.

All participants were asked questions regarding their preference in the prototypes observed and discussed during their interview. If not mentioned, participants were probed regarding their preference in Website addresses and vanity numbers and their ability to recall them after they were put away. Participants were also asked about their current and future thermometer use at home and their knowledge of food safety.

On February 16th, the same pretesting protocol was followed except for two omissions. First, participants were not asked to select from the primary concepts. Instead, they were shown all four prototypes and asked to select the prototype they preferred after giving them a quick glance. Second, participants were not probed on the Website addresses and vanity numbers.

Results

The following section summarizes the pretesting results.

Four Concepts

Four concepts and their corresponding prototypes were pretested with Boomburbs in Hillsborough County. These four concepts included: (1) Great Taste, Precisely; (2) “Is it done yet?” You can’t tell by color; (3) Each year, children DIE from eating undercooked meat; and (4) One out of four hamburgers could make him sick. To simplify the results section, a letter will be assigned to each concept (A – D). Table 3 illustrates the letter assigned to each concept.

Table 3: Concepts

Letter Assigned	Concept
A	Great Taste, Precisely
B	“Is it done yet?” You can’t tell by color
C	Each year, children DIE from eating undercooked meat
D	One out of four hamburgers could make him sick

Primary Concepts: First Concept Selected

In this phase of the interview, participants were shown the four primary concepts and asked to select the concept that grabbed their attention and about which they would like to read more.

The majority of participants selected concepts B, C, or D as their first choice. Nearly half of these participants preferred concept C. The rest of these participants were evenly divided between B or D as their preference. Only a few participants selected Concept A as their first choice.

Participants shared the following comments as reasons for their concept selection:

Primary Concept A

For those participants who selected concept A, the quote “Great Taste, Precisely” immediately grabbed their attention. Participants thought this concept would deal with meat or ways to make food taste better. These participants would like to learn more about ‘cooking meat to a safe temperature and still retain its flavor’ or ‘how to make a perfect meal.’

Primary Concept B

For those participants who selected concept B, their familiarity with the phrase “Is it done yet?” caught their eye immediately. The majority thought this concept dealt with ‘undercooked meat,’ ‘meat preparation,’ and/or ‘food preparation.’ Many would like more information on ‘how they could tell if the meat was properly cooked’ and ‘the reason why color was not a good indicator.’

Primary Concept C

For those participants who chose concept C, the words ‘children’ and ‘DIE’ were the key to their choice selection. Many thought they could identify with the message as parents. The majority thought the concept would deal with ‘cooking food properly’ and/or ‘undercooked meat.’ Many wanted to learn at which temperatures meats should be cooked and what types of meats are most dangerous to consume.

Primary Concept D

For those participants who selected concept D, the phrase ‘One out of four’ grabbed their attention as thoughts of their own kids came to mind. Some participants thought this concept would deal with fast food places, food contamination or tainted beef. Others felt the concept would be about ‘cooking hamburgers properly.’ These participants wanted to learn more about how to tell if eating hamburgers could make their kids sick, how do they know if it is safe to eat without burning the hamburger, and how long should different meats be cooked.

Primary Concepts: Second Concept Selected

During this phase of the interview participants were shown the remaining three concepts, excluding the concept they had previously selected. Participants were asked to choose the concept that “grabbed their attention” most.

Many of the participants picked concept B or D as their second choice. Only some selected A or C as their second choice.

Overall, reasons for their second selection resembled those given previously by other participants in regards to their first choice. The following is a summary of participants’ feedback based on their second choice.

Primary Concept A

The participants who selected concept A as their second choice liked the phrase “Great Taste, Precisely’ and wondered ‘what is great taste? What’s going to taste great?’ Some felt this concept, when compared to the rest, seemed simpler and ‘not fear inducing.’ Overall, participants were curious to know what the phrase ‘great taste’ was all about.

Primary Concept B

The participants who chose Concept B as their second choice were attracted to this concept because of their familiarity as parents with the phrase ‘Is it done yet?’ Others were interested in reading more about the notion that ‘you can’t tell by color.’ Participants thought this concept would be about cooking meat properly. Knowing how to cook meat properly and the reason color is not a good indicator were areas participants wanted to know more about.

Primary Concept C

Participants who chose Concept C as their second choice were grabbed by the alarming phrase ‘Children Die.’ Some thought this concept dealt with thermometers and undercooked meat. They wanted to know more about the proper way to cook meat.

Primary Concept D

Participants who chose concept D were captured by the phrase ‘One out of four.’ Many thought the concept would be about thermometers, undercooked meat, processing meat plants, or cooking. Some participants were skeptical as to the validity of the statistic and would have liked more information on the number of children who actually get ill from eating hamburgers.

Pretesting Findings for Prototypes

This section summarizes the pretesting findings that apply across all four prototypes. The individual prototype findings will be summarized individually after this section.

For many participants, the immediate response was to question the intent of the prototype. Before participants read the text, the first assumption was that the purpose of the prototype was to sell thermometers. After participants read the text, they acknowledged the food safety message. However, some still questioned whether the food safety message was a scheme to get them to buy a thermometer. However, as participants noticed or were made aware of the USDA logo, many concluded the prototype was intended to promote food safety. Participants also concluded that USDA wouldn't be involved in promoting a particular product and its agenda would be to promote food safety. One participant stated, 'Before I noticed the USDA – I thought this was trying to sell thermometers.'

For many participants, the following three areas of information were new to them: (1) meat should be cooked to 160 degrees; (2) the variety of thermometers available; and (3) color doesn't determine safety.

Prototype for Concept A: Great Taste, Precisely

This section provides the pretesting findings for the Concept A prototype.

In general, participants felt the heading 'Great Taste, Precisely' was misleading. For some, the title of the prototype did not seem to be adequate for the message of food safety. One participant stated, 'There is a credibility gap in the message, between tasting good and the correct temperature.' Some felt a different heading would be more effective in sending the correct message.

According to participants, the prototype's intended message was to cook meat to the correct temperature. Some also felt the message focused on the notion that cooking meat to the correct temperature assured safety and taste.

Most participants thought the message was intended for 'anyone who cooked hamburgers,' whether the person was a parent or a restaurant chef. Some also felt the message targeted to the individual who performs most of the cooking in the household, which to many is the mother.

Many participants liked the illustration displaying the variety of thermometers available. Many also liked the picture of the thermometer inserted into the hamburger, showing how it is used.

The color scheme of the prototype was well received by some. Other participants recommended that the colors be brighter.

Many participants did not like the contrast between the small print paragraph on the bottom left side of the prototype and the dark background. However, these individuals thought the content was important and needed to be included.

Some participants recommended that the picture of the thermometer inside the hamburger be used as the primary illustration on this prototype.

Prototype for Concept B: Is it done yet? You can't tell by color

This section provides the pretesting findings for the Concept B prototype.

Participants found the image of the family and friends appealing and cheerful. They also liked the 'catchy' and 'not fear inducing' heading. Participants also liked the colorful appearance of this prototype.

Many participants felt the prototype was too cluttered by facts and images. Some participants thought the family image should have fewer people. Others would prefer the image to feature cooked hamburgers rather than raw ones.

A few found the image of hamburgers with a variety of toppings unnecessary. Some felt it would be more effective to have a picture showing how a thermometer is used. Furthermore, participants felt there should only be four hamburgers in the image instead of five so it would go with the heading of 'one out of four hamburgers turns brown before it has reached a safe internal temperature.'

Participants also found the images of the thermometers too cluttered. However, they liked learning about the variety of thermometers available.

For the majority of participants, the background was 'distracting' and 'irritating' to look at. Many recommended utilizing a plain, one-color background.

For most, the prototype's intended message was to rely on a thermometer rather than color to know when the meat is safe to consume.

Many were unfamiliar with the correct temperature at which to cook meat and the fact that 'one out of four hamburgers turns brown before it has reached a safe internal temperature.' This fact on meat color was very important to participants in their understanding for the need of a meat thermometer.

Many participants thought the message was intended for parents, who do most of the cooking. However, some participants also thought the message was intended for people who use the grill, such as males/dads. Some mothers felt this prototype would be more appealing to their husbands.

A few participants commented on the lack of ethnicity representation. To these participants the intended audience was Anglo families.

Many participants thought the fine print contained important information but was likely to be skipped over because of the font size and reading difficulty.

Prototype for Concept C: Each year, children DIE from eating undercooked meat

This section provides the pretesting findings for the Concept C prototype.

Participants were quick to notice and comment on the temperature chart. Many liked having the different meats and their corresponding cooking temperatures readily available on a chart. In fact, many recommended the temperature chart be incorporated into all other prototypes.

Some participants recommended that pictures of the animals representative of the different meat products be used in the temperature chart for clarity and better understanding. For example, they suggested using the picture or silhouette of a chicken for poultry.

For many, the prototype's intended message was the importance of relying on a meat thermometer not the color to know when the meat is safe to eat.

While participants found this prototype informative, many did not like the dark colors and warning marks used in this prototype. For many the warning marks on the top of the layout gave the appearance of an advertisement and made them think of road safety at first glance.

Many participants questioned the use of a chef as the spokesperson for this message. Some recommended the inclusion of a family eating supper, e.g., a mother cooking in the kitchen with her children nearby, or even a family portrait with kids. The general recommendation was to discard the chef from the prototype.

The majority of participants identified mothers, parents, or the person who does most of the cooking in the home for the children as the intended audience.

Participants also found the picture of thermometers too cluttered. However, they liked having images of and learning about the variety of thermometers available.

Prototype for Concept D: One out of four hamburgers could make him sick

This section provides the pretesting findings for the Concept D prototype.

The image of the kid eating a hamburger was appealing to many. As parents, participants could identify with the little boy in the picture. They mentioned thinking of their own children. They also liked the boy making eye contact with the reader as though he were telling the mother, 'Thanks for making this meal for me.'

Many found the colors of the layout cheerful, bright, and colorful, the headlines clearer and pleasant to the eye, and the print clear and crisp.

The Website stands out on this prototype.

Participants questioned the image of the little boy eating a tomato. Many thought the tomato makes the hamburger look raw.

Some participants would like more information on 'how severe will their child get sick?' and 'what exactly would happen to him?'

A few participants suggested that the headline read, 'One out of four hamburgers could make your child sick' instead of 'him sick.' Others suggested utilizing an image of four children eating instead of just the one child.

Many participants did not like the contrast between the small print paragraph on the bottom left side of the prototype and the dark background. However, these individuals thought the content was important and needed to be there.

The majority of participants identified mothers or parents as the intended audience. For many, the prototype's intended message was the importance of relying on a meat thermometer not the color to know if the meat is safe to eat.

Participants were surprised to find out that 'one third of all food borne illnesses occurs in children under 10.'

Participants also found the picture of thermometers too cluttered. However, they liked learning about the variety of thermometers available.

Information Recall

When participants were asked to recall the prototypes observed, they were most likely to recall the following aspects for each piece:

Prototype for Concept A:

Hamburger on a plate
Clutter of thermometers

Prototype for Concept B:

The image of the family having a barbecue or a group grilling
The phrase 'one out of four turns brown...'
The heading "Is it done yet? You can't tell by color"

Prototype for Concept C:

The temperature chart and the different temperatures
 The phrase ‘children DIE’
 The notion of ‘not color, temperature tells you it is safe’

Prototype for Concept D:

The phrase ‘one out of four hamburgers...’
 The little boy in the image
 The variety of thermometers
 The notion that ‘temperature is more reliable than color’

Prototype Preference

The majority of participants preferred the prototypes for Concepts B, C, and D. In fact, on the last day of pretesting participants were asked to select the prototype they preferred at first glance. The majority of participants choose D, C and B. Only a few selected the prototype for Concept A.

Overall, participants preferred Concept D. They found the appearance pleasant and appealing. However, there are important components from the other prototypes that participants felt should be included in the pieces. Many participants liked:

- The temperature chart in Concept C.
- The image showing the thermometer being used in Concept A.
- The image of the family gathering in Concept B.
- The heading “Is it done yet?” was also well received.

Information Wanted

Participants would like more information on:

- Where to purchase thermometers
- Cost of thermometers
- How to use thermometers
- Information on the reliability of the different thermometers
- The correct temperatures to cook all meat products

Future Behavior

The majority of participants reported they would either purchase a thermometer or at the very least contemplate using a thermometer the next time they cooked for their family. Many also stated they would visit the Website to gather more information on the topic of food safety. Some participants thought they would talk to their spouses, parents, siblings or friends about this new information.

USDA Logo

Almost all participants agreed that the USDA logo added credibility to the message of food safety. Participants felt confident in the information being given knowing the source was the USDA. According to participants, the USDA connection to the prototype's message 'engenders trust.'

Web Site and Vanity Numbers

Most participants could recall the presence of a Website on the prototypes and that the address included a '.gov' address. Almost all participants preferred the Website www.cooksafe.gov. The few who preferred the other Website, www.fsis.usda.gov/thermometer, agreed that this Internet address appeared official since it contained the USDA in it.

Only a few participants could remember the presence of a phone number on the prototypes. However, no one could recall the exact phone number. Almost all participants preferred the 1-888-MPHotline vanity number. However, many felt the vanity number should be consistent with the Website and weren't too fond of vanity numbers.

Thermometer Use

More than half of the participants own a food thermometer. However, the majority of them do not use their thermometers on a regular basis, if at all. Many of these participants report using their thermometers while cooking a turkey or thick cut of meat, such as a roast. About a third felt they now would use a thermometer for a smaller item, such as a burger or a chicken breast. Many of the participants who currently do not own a thermometer felt they were likely to use one now.

The majority of participants, regardless of thermometer ownership, did not know that color is an unreliable indicator of safety.

The Ideal Prototype

Based on the pretesting findings, the following recommendations should be considered in the development of new prototypes:

Utilize a ‘catchy’ heading that appeals to parents, such as the heading “Is it done yet?” Consider using a heading that speaks directly to the parent, such as “One out of four hamburgers could make your child sick.”

Utilize images to highlight or illustrate the promoted behavior. Consider incorporating active images of an individual using a thermometer.

Emphasize the notion that ‘one out of four hamburgers turns brown before it has reached a safe internal temperature.’ This fact had the greatest impact on participants’ understanding of the importance of using a thermometer.

Incorporate the temperature chart into all designs. Consider using animal pictures or silhouettes to represent the different meat products on the temperature chart for clarity and better understanding. For example, have the picture or silhouette of a chicken for poultry.

Utilize images of families or children as spokespersons with which ‘Boomburbs’ would be most likely to identify.

Utilize a Website address that is simple and easy to remember, yet identifies the USDA as the source.

Utilize a vanity number that clearly relates to the Website and the topic of food safety.

Simplify layout by adding more white space.

Decrease the amount of information by focusing on the main message.

Avoid poor contrast between the ink and the paper.

Utilize a print size known to be comfortable for most to read.

Most importantly, always pretest education materials with the target audience throughout the developmental phase.

APPENDIX A

Dear Resident:

You have been selected to help design a national food and cooking education program. We would like to show you sample materials designed for families like yours and hear your opinions. To make the interview easy and enjoyable, we are inviting you to attend a special event at **Williams-Sonoma** in International Plaza on February 12th, 13th, or 16th. Only 100 families will be invited to these events so it is important for you to reserve the time you would like to participate.

At each event, we will ask you to spend about 20 minutes looking at educational materials and give us your ideas on how to improve them. The information we learn from you and other families will help guide the final development of the campaign. Your opinions will have significant influence on the direction of this important campaign.

During each event, hors d'oeuvre and refreshments will be served. If you need to bring your children, there will be assistants to help entertain them during the brief interview we will conduct with you. After you are interviewed, we will be happy to provide you with a **cash award of \$40 and a special gift.**

The event, being hosted by Best Start Social Marketing, a non-profit organization, and Williams-Sonoma, will be held on the following dates and times:

Event #1: Wednesday, February 12, 2003 – 7pm – 9pm

Event #2: Thursday, February 13, 2003 – 7pm – 9pm

Event #3: Sunday, February 16, 2003 – 6pm – 8pm

If you would like to attend an event please RSVP by phone by calling (813) 971-2119 Extension 112. Ask for Maria and register for the event you would like to attend.

A numerical participant code will be assigned to those who choose to participate. Only those with assigned participant codes will be allowed to participate.

The total number of participants for all three events is 100. These are selected on a first come first served basis, so please contact us soon. Upon 100 confirmed participants we will be unable to accept any more participant requests to attend.

We hope to see you at one of the scheduled events.

Thank You,

Jim Lindenberger
Executive Director