December 31, 2004

Focus Groups to Test Materials for the "Is it DONE yet?" Campaign

Volume 1
Final Report

Contract No. 53-3A94-03-12

Prepared for

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*RTI International is a trade name of Research Triangle Institute.

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Executive Summary

The U.S. Department of Agriculture's Food Safety and Inspection Service (USDA, FSIS) developed the "Is it DONE yet?" campaign to increase consumers' use of food thermometers in daily cooking for all cuts of meat, including smaller cuts (e.g., hamburgers and chicken breasts), to prevent foodborne illness. The campaign, based on social marketing principles, is targeted to individuals, characterized as "Boomburbs," who have children aged 10 years old or younger. Boomburbs are upscale, suburban, two-income families. They are highly educated, seek the newest technology, and are vigorous consumers of information. They are often active in their communities, setting agendas and disseminating new ideas (The Baldwin Group, 2003; 2001).

Michigan State University's (MSU) National Food Safety & Toxicology Center, Department of Food Science and Human Nutrition and its Extension service partnered with FSIS to conduct an "Is it DONE yet?" pilot campaign from August 2 through 15, 2004, in Grand Rapids, Ann Arbor, and Lansing, Michigan. The pilot campaign materials included a brochure, print advertisement, radio public service announcement (PSA), and magnet. Figure ES-1 shows the print advertisement developed for the campaign.

To complement MSU's evaluation of the pilot campaign materials, FSIS contracted with RTI International (RTI) to conduct consumer focus groups. The purpose of the focus groups was to learn about changes in participants' food thermometer awareness, knowledge, and usage following

Figure ES-1. Print Advertisement for the "Is it DONE yet?" Campaign

campaign exposure and to obtain participants' opinions and preferences for campaign materials. In each location, RTI conducted one focus group with Boomburbs and another with individuals who do not classify as Boomburbs, for a total of six focus groups.

This report summarizes the findings from the focus group discussions with Boomburbs and non-Boomburbs. The key findings and recommendations presented below, however, are based only on the focus group discussions with Boomburbs, the campaign's target audience. Although consumer focus group findings should not be generalized to the general population in any statistical sense, the focus group findings do provide useful insights on the impact the campaign had on participants' food thermometer awareness, knowledge, and usage and ways to improve the "Is it DONE yet?" campaign materials.

ES.1 KEY FINDINGS

We summarize the key findings from the focus group discussions with Boomburbs below.

Changes in Participants' Food Thermometer Awareness, Knowledge, and Usage following Campaign Exposure

The focus group findings suggest that the pilot campaign increased participants' awareness of food thermometer usage. Based on the estimated campaign exposure rates, at least 43 percent of the individuals contacted to participate in the study had heard or read about food thermometer usage during the two months prior to the study. Participants heard or read about thermometer usage through visits to the USDA Food Safety Mobile, local newspaper articles or television news stories on food thermometer usage, and other sources (e.g., cooking magazines and the Food Network). Because some individuals heard or read information that was not part of the campaign, the exposure rates may be overstated.

The focus group findings suggest exposure to the campaign materials increased participants' knowledge of food thermometer usage. In particular, some participants learned about the need to use a food thermometer to check that meat and poultry have been cooked to a safe internal temperature. Prior to the study, some participants either overcooked meat and poultry or relied on their previous cooking experience or time to determine doneness. Some participants were unaware and surprised by the message "one out of every four hamburgers turns brown before it reaches a safe internal temperature." Many participants were unaware and surprised by the CDC statistics on foodborne illness.

After campaign exposure, participants' food thermometer ownership and usage increased. Seven of the 10 participants who did not own a food thermometer prior to the campaign purchased a food thermometer or received a free food thermometer at the USDA Food Safety Mobile. Seven participants tried using a food thermometer when cooking large pieces of meat or poultry, and at least five participants tried using a food thermometer when cooking hamburgers and/or chicken breasts. Some participants also started using a food thermometer or used a food thermometer more frequently or for smaller cuts of meat, such as hamburgers and chicken breasts.

These findings suggest the pilot campaign helped to increase consumers' awareness and knowledge of the need to use a food thermometer to check the doneness of meat and poultry and helped to motivate changes in food thermometer usage.

Participants' Evaluation of Campaign Materials

Brochure

Most participants liked the brochure, especially the "USDA Recommended Internal Temperatures" graphic, and found it informative. Many were unaware and surprised by the Centers for Disease Control and Prevention (CDC) statistics on foodborne illness and the message "one out of every four hamburgers turns brown before it reaches a safe internal temperature." A few participants in each location said they would be more likely to pick up and read the brochure if it included more statistics on foodborne illness.

Print Advertisement

Many participants liked the print advertisement, especially that the graphic showed a mother teaching her son how to use a food thermometer. Several participants in each location did not like how the ad's colors (pink and green) coordinated with the colors of the son's and mother's shirts. Many participants also did not think the hamburger pictured in the ad looked realistic.

Radio PSA

Most participants liked the radio PSA and described it as *"humorous but informative."* Although some participants said the PSA caught their attention and was memorable, several participants in each location said if they heard the PSA on the radio, they would likely tune it out or change the station. A few participants believed the PSA should emphasize the importance of using a food thermometer when cooking all types of meat, not just hamburgers, to protect children from foodborne illness.

Magnet

Most participants really liked the magnet and said they would place it on their refrigerators. One participant said, *"This is one magnet that won't be in the junk drawer."* Many participants did not particularly like the magnet's outer picture frame. To improve the magnet, some participants suggested that the USDA logo, Web site address, and Hotline number be placed on both pieces of the magnet in case the two pieces got separated.

ES.2 RECOMMENDATIONS

Based on the Boomburb focus group findings, we offer the following recommendations for improving the "Is it DONE yet?" campaign materials.

Brochure

- provide more information and statistics on foodborne illness (e.g., susceptible populations, foodborne pathogens, and symptoms) to get consumers' attention;
- provide additional information on how to properly use different types of food thermometers;
- add a picture of an egg dish and its safe internal temperature to the "USDA Recommended Internal Temperatures" graphic;
- use a hamburger graphic that looks more realistic;
- use graphics to illustrate different cooking methods and different types of food thermometers;
- include an illustration that compares two pieces of meat that look similar but have and have not reached a safe internal temperature; and
- encourage readers to cut out and keep the "USDA Recommended Internal Temperatures" graphic by using perforations or a scissors symbol.

Print Advertisement

- add CDC and other statistics on foodborne illness;
- use a hamburger graphic that looks more realistic;
- include an illustration that compares two pieces of meat that look similar but have and have not reached a safe internal temperature; and
- consider changing the colors of the son's and mother's shirts so they do not coordinate with the colors of the ad (pink and green).

Radio PSA

- focus more on how foodborne illness can affect a child's health and

- consider developing separate PSAs that address other foods and cooking methods, especially during nonsummertime months.

Magnet

- add the Meat & Poultry Hotline and USDA logo to the inner magnet in case the two pieces get separated or
- consider combining the two magnets into one.

1 Introduction

Boomburbs are upscale, suburban, two-income families. They are highly educated, seek the newest technology, and are vigorous consumers of information.

The U.S. Department of Agriculture's Food Safety and Inspection Service (USDA, FSIS) developed the "Is it DONE yet?" campaign to increase consumers' use of food thermometers in daily cooking for all cuts of meat, including smaller cuts (e.g., hamburgers and chicken breasts), to prevent foodborne illness. The campaign, based on social marketing principles, is targeted to individuals, characterized as "Boomburbs," who have children aged 10 years old or younger. Boomburbs are upscale, suburban, two-income families. They are highly educated, seek the newest technology, and are vigorous consumers of information. They are often active in their communities, setting agendas and disseminating new ideas (The Baldwin Group, 2003; 2001).

Earlier this year, RTI International (RTI) conducted focus group discussions with Boomburbs to test slogans and concepts designed for the campaign by The Helix Group, Inc., and The Baldwin Group, Inc., under Contact No. 53-3A94-98-03, Delivery Order 23. Based on these focus groups, FSIS revised the slogans and concepts and developed materials for the campaign.

Michigan State University's (MSU) National Food Safety & Toxicology Center, Department of Food Science and Human Nutrition and its Extension service partnered with FSIS to conduct an "Is it DONE yet?" pilot campaign from August 2 through 15, 2004. As part of the campaign, the USDA Food Safety Mobile visited local grocery stores, fairs, museums, and other local sites in Grand Rapids, Ann Arbor, and Lansing, Michigan. FSIS staff and local educators distributed free food

thermometers and campaign brochures and magnets to visitors. In each city, local radio stations broadcasted from at least one Mobile event and interviewed FSIS staff on food thermometer usage. Local radio stations also promoted the campaign and the Mobile prior to events and aired the campaign's public service announcement (PSA). Local newspapers advertised Mobile events along with the campaign's print advertisement. The print advertisement appeared in five issues each of the *Grand Rapids Press*, *Ann Arbor News*, and the *Lansing State Journal*. The print advertisement was also placed in two local publications (Ann Arbor's *Metro Parent*, *Grand Rapids Magazine*). Local newspapers and television stations covered the campaign. In addition, advertisements were posted on local Internet sites to promote food thermometer usage.

The purpose of the focus groups was to learn about changes in participants' food thermometer awareness, knowledge, and usage following campaign exposure and to obtain participants' opinions and preferences for campaign materials.

MSU conducted a survey before and after the campaign to measure local consumers' changes in food thermometer awareness, knowledge, and usage. To complement the evaluation, FSIS contracted with RTI to conduct consumer focus groups in Grand Rapids, Ann Arbor, and Lansing. In each location, RTI conducted one focus group with Boomburbs and another with individuals who do not classify as Boomburbs, for a total of six focus groups. The purpose of the focus groups was to learn about changes in participants' food thermometer awareness, knowledge, and usage following campaign exposure and to obtain participants' opinions and preferences for campaign materials.

This report describes the study design and presents the key findings from the focus group discussions. This report is organized in the following sections: Section 2 describes the study methods; Section 3 discusses participants' food thermometer usage before and after campaign exposure; Section 4 summarizes participants' evaluation of the campaign materials; and Section 5 concludes the report with a summary of the key findings and our recommendations for improving the "Is it DONE yet?" campaign materials.

2 Study Methods

In this section, we describe the procedures and materials used to conduct the focus groups.

2.1 STUDY DESIGN

On September 28 through 30, 2004, RTI conducted two focus groups in each of three Michigan locations (Grand Rapids, Ann Arbor, and Lansing), for a total of six focus groups. In each location, RTI conducted one focus group with Boomburbs and one focus group with individuals who do not classify as Boomburbs. Each focus group included six to eight participants, for a total of 45 participants, and included a mix of races, ages, and genders. Table 2-1 provides information on participants' demographics.

To recruit possible focus group participants, FSIS and MSU staff distributed postcards to adults who attended the USDA Food Safety Mobile at local events in the three locations. The postcard included a telephone number that interested individuals could call to participate in a group discussion in their area. The postcard, however, yielded at most two participants in each location; thus, RTI contracted with local market research companies in each location to recruit non-Boomburbs from their facilities' databases and Boomburbs from lists purchased from The Baldwin Group, Inc. Appendix A provides the questionnaire used to screen for eligibility and recruit participants for the focus group discussions.

Table 2-1. Participants' Demographics

Question	Boomburbs			Non-Boomburbs		
	Ann Arbor (n = 8)	Grand Rapids (n = 8)	Lansing (n = 6)	Ann Arbor (n = 7)	Grand Rapids (n = 8)	Lansing (n = 8)
Gender						
Male	1	2	3	1	3	4
Female	7	6	3	6	5	4
Age						
18–25	0	1	0	0	1	2
26–35	4	1	4	2	2	3
36–55	4	6	2	5	5	3
Hispanic or Spanish origin	0	1	0	0	1	1
Race						
White/Caucasian	8	6	5	5	4	6
Black/African American	0	2	1	1	1	1
Asian/Pacific Islander	0	0	0	0	2	0
Another race or multiracial	0	0	0	1	1	1
Education						
Less than a high school degree	0	0	0	0	0	1
High school graduate or GED	0	1[a]	0	1	2	2
Some college	0	2[a]	1[a]	3	6	5
College graduate	8	5	5	3[b]	0	0

[a]During the screening call, respondents indicated they were college graduates. On the night of the discussion, however, participants indicated on the prediscussion questionnaire that they were not college graduates.

[b]During the screening call, respondents indicated they were not college graduates. On the night of the discussion, however, participants indicated on the prediscussion questionnaire that they were college graduates.

To be eligible to participate in the focus groups, all participants had to meet the following criteria:

- heard or read about food thermometer usage in the past two months;
- have children aged 10 years old or younger living in their households;
- have primary or shared responsibility for cooking in their households;
- prepare and eat meat and/or poultry in their homes at least three times a week;
- are 18 to 55 years old;

- have not participated in a focus group in the past 6 months; and
- have not been employed, nor have family members employed, by the Federal government, the food industry, the health care industry, or a marketing research, advertising, or public relations firm in the past 5 years.

In addition to these criteria, participants had to have annual household incomes of at least $50,000 and at least a 4-year college degree to be eligible to participate in the Boomburb focus groups. To be eligible to participate in the non-Boomburb focus groups, participants must not have completed a 4-year college degree.

For their time and participation, focus group participants received a free gift (a cutting board) and a monetary incentive of $60, $65, and $75 in Grand Rapids, Ann Arbor, and Lansing, respectively. In addition, participants from Lansing received a free food thermometer. In Grand Rapids, interested participants provided their contact information to receive a free food thermometer by mail. Interested participants from Ann Arbor were asked to call the Meat & Poultry Hotline to receive a free food thermometer.

Prior to the focus group discussions, participants completed a questionnaire that collected information on participants' thermometer usage before and after campaign exposure, exposure medium, and demographics. Appendix B provides a copy of the prediscussion questionnaire.

Each focus group lasted approximately 90 minutes. Each focus group was audio- and videotaped, and the discussions were transcribed.[1] Volume 2 of this report provides the transcripts from each focus group discussion.

We prepared a detailed summary of each group discussion. We then reviewed the detailed summaries to identify common themes within and across locations.

2.2 MODERATOR GUIDE

Working with FSIS, we developed a moderator guide to collect information on:

[1]Because of technical difficulties, the Ann Arbor discussion with Boomburbs was not recorded. The reported findings are based on notes taken by the moderators and focus group observers.

- changes in participants' food thermometer awareness, knowledge, and usage following campaign exposure;
- participants' awareness and impressions of the campaign's brochure, print advertisement, radio PSA, magnet, and other campaign materials;
- aspects of the campaign that had the most impact on participants' food thermometer awareness, knowledge, and usage; and
- participants' suggestions for improving the campaign's materials.

Based on comments provided by FSIS during the focus group study, RTI customized the moderator guide (see Appendix C) for each group. Figure 2-1 presents an outline of the moderator guide.

The first half of each discussion focused on participants' food thermometer usage before campaign exposure and changes, if any, in their food thermometer usage after campaign exposure. In addition, participants discussed their preferences for a variety of food thermometers presented at the discussions.

The second half of each discussion focused on participants' evaluation of the "Is it DONE yet?" campaign materials. The moderator explained the purpose of the campaign and asked participants to keep it in mind when reviewing the materials. The materials included a brochure, print advertisement, radio PSA, and magnet. The moderator presented each material separately and asked participants about their initial impressions of each material and what aspects (e.g., colors, text, and graphics) of the materials they liked and disliked. The moderator also asked participants for suggestions for improving each material. In addition, the moderator asked participants about the impact the materials had on their food thermometer awareness, knowledge, and usage.

Appendix D provides copies of the campaign materials evaluated in the focus group discussions. To mitigate starting-point bias, we rotated the order in which the materials were presented in each focus group. In Lansing, the moderator played the PSA before explaining the purpose of the campaign to see if participants' impressions differed from those who heard the campaign's purpose first.

Figure 2-1. Outline of Moderator Guide

- Introduction
- Food thermometer usage
  - Usage before campaign exposure
  - Type of campaign exposure
  - Usage after campaign exposure
  - Preferences for food thermometers
- Evaluation of campaign materials
  - Initial impressions of each material
  - Likes/dislikes of each material
  - Suggestions for improving each material
  - Impact on awareness, knowledge, and thermometer usage
- Wrap up

3 Participants' Food Thermometer Usage Before and After Campaign Exposure

In this section, we describe what participants heard or read about food thermometer usage during the two months prior to the focus group discussions. We also describe participants' use of food thermometers before campaign exposure and changes, if any, in their food thermometer usage after campaign exposure. Additionally, we discuss participants' preferences for the different types of food thermometers presented at the groups in Ann Arbor and Grand Rapid. Appendix E provides detailed summaries of the focus group discussions with Boomburbs and non-Boomburbs.

3.1 PARTICIPANTS' CAMPAIGN EXPOSURE

To estimate the number of adults exposed to the "Is it DONE yet?" pilot campaign in Ann Arbor, Grand Rapids, and Lansing, the market research facilities recorded whether each individual contacted to participate in the study had heard or read about food thermometer usage in the past 2 months. As shown in Table 3-1, 43 to 53 percent of contacted individuals had heard or read about food thermometer usage during the two months prior to the study. The exposure rates may be overstated because some individuals heard or read information about food thermometer usage that was not part of the "Is it DONE yet?" campaign. Additionally, exposure rates should not be generalized to the population of consumers in Ann Arbor, Grand Rapids, and Lansing because a probability-based sample was not used to recruit focus group participants.

Table 3-1. Campaign Exposure Rate by Location[a]

Location	Exposure Rate (%)
Ann Arbor	43.2
Grand Rapids	46.2
Lansing	52.6

[a]The exposure rate is equal to the number of individuals who had heard or read about food thermometer usage divided by the number of individuals contacted to participate in the study.

Based on the findings from the prediscussion questionnaire, Table 3-2 displays participants' sources of information about food thermometer usage. Eight participants attended the USDA Food Safety Mobile and received a free food thermometer and learned how to properly use it. At least one participant in each group heard the PSA[1] or read a newspaper article about food thermometer usage. In Lansing, one participant heard about food thermometer usage through a conversation with an MSU Extension staff member, and one participant saw a cooking demonstration hosted by MSU Extension Services at the Ag Expo. In Grand Rapids, one participant read about food thermometer usage on USDA's Web site after visiting the site to verify something she saw on a cooking show. Other participants heard or read about food thermometer usage on the national or local news, on the Food Network, or in cooking magazines.

3.2 CHANGES IN PARTICIPANTS' FOOD THERMOMETER USAGE

Based on the findings from the prediscussion questionnaire, Table 3-3 shows participants' food thermometer ownership and usage before and after campaign exposure.

3.2.1 Boomburbs

Prior to exposure to information about food thermometer usage, 12 of the 22 participants owned a food thermometer. Ten participants who owned a food thermometer used it when cooking large pieces of meat or poultry (e.g., turkeys, roasts), and four participants used it when cooking chicken breasts. No

[1]At the beginning of each discussion, only one Boomburb mentioned he had heard the PSA on a local radio station. When we played the PSA for participants, a few recalled hearing it prior to the discussion.

Table 3-2. Participants' Sources of Information about Food Thermometer Usage[a]

Source	Number of Responses (n = 45)
Magazine news story	13
Newspaper article	11
Television news story	10
Television advertisement	8
Magazine advertisement	8
USDA Food Safety Mobile	8
Newspaper advertisement	2
Radio advertisement	1
Radio news story	1
Other	8

[a] Responses based on prediscussion questionnaire. A few participants indicated more than one source of information.

Table 3-3. Participants' Reported Food Thermometer Ownership and Use Before and After Campaign Exposure

	Boomburbs (n=22)		Non-Boomburbs (n=23)	
	Before	After	Before	After
Own food thermometer	12	19	14	19
Use food thermometer—large cuts	10	17	12	15
Use food thermometer—chicken breasts[a]	4	6	3	4
Use food thermometer—hamburger[a]	0	5	1	6

[a]Responses based on prediscussion questionnaire. The number of responses may be understated because three Boomburbs and four non-Boomburbs did not complete the second page of the questionnaire.

participants used a food thermometer when cooking hamburgers. Participants who did not own and/or use a food thermometer either overcooked their meat or relied on their previous cooking experience or time to determine the doneness of meat and poultry.

After campaign exposure, participants' food thermometer ownership and usage increased. Seven of the 10 participants who did not own a food thermometer prior to the campaign purchased a food thermometer or received a free food thermometer by visiting the USDA Food Safety Mobile. Seven participants also tried using a food thermometer when cooking large pieces of meat or poultry. At least five participants had

tried using a food thermometer when cooking hamburgers and/or chicken breasts. After receiving a free food thermometer at the Mobile, one participant was surprised that the meat she had cooked had not reached a safe internal temperature when she *thought* it was done; she was glad that she had received the food thermometer and plans to continue using it. After watching a local television news story about food thermometer usage, one participant started using a food thermometer more often to set an example for her 15-year-old daughter; she taught her daughter how to use a food thermometer when cooking meat and poultry. After watching a cooking show, one participant purchased a thermometer to make candy; pleased with the candy thermometer to prevent overcooking, he purchased a food thermometer and uses it often to prevent overcooking chicken breasts, prime rib, and roasts. A few participants in each group mentioned they became *"more cautious"* when cooking meat and poultry. At least two participants considered using a food thermometer to protect their children from foodborne illness but had yet to use or purchase one.

3.2.2 Non-Boomburbs

Prior to exposure to information about food thermometer usage, 14 of the 23 participants owned a food thermometer. Twelve participants who owned a food thermometer used it when cooking large pieces of meat or poultry (e.g., turkeys, roasts), and three participants used it when cooking chicken breasts. Only one participant used a food thermometer when cooking hamburgers. Other participants relied on their previous cooking experience, taste, or color to determine the doneness of meat and poultry.

Similar to the findings in the focus groups with Boomburbs, participants' food thermometer ownership and usage increased after campaign exposure. Five of the 9 participants who did not own a food thermometer prior to the campaign purchased a food thermometer or received a free food thermometer by visiting the USDA Food Safety Mobile. Three participants also tried using a food thermometer when cooking large pieces of meat or poultry (e.g., turkeys, roasts), and one participant tried using it when cooking chicken breasts. Five participants tried using a food thermometer when cooking hamburgers. One participant who only used a food thermometer for large cuts of meat now uses one when grilling steaks and chicken on

an outdoor grill, *"so my little boy doesn't get sick* [from foodborne illness]*."* Some participants in each group became *"more conscious"* and *"more cautious"* when cooking meat and poultry or considered purchasing or using a food thermometer, primarily to protect their children from foodborne illness. A few participants would have used a food thermometer but were unaware of the safe internal temperatures for different types of meat, including wild game.

"I know I should use one, but it's hard to break the habit [of not using a food thermometer when cooking meat and poultry]."

Of the three participants who received a free food thermometer at the Mobile, two participants still only use the food thermometer on large pieces of meat. One participant stated, *"I know I should use one, but it's hard to break the habit* [of not using a food thermometer when cooking meat and poultry]*."*

3.3 PARTICIPANTS' PREFERENCE FOR ALTERNATIVE FOOD THERMOMETERS

In Ann Arbor and Grand Rapids, we discussed participants' preferences for digital, instant-read dial, and T-stick thermometers. Participants' responses were based on the appearance of the food thermometers shown in the focus groups and their past experiences using these types of thermometers.

3.3.1 Boomburbs[2]

Some participants preferred a dial thermometer to a digital thermometer; notably however, participants had the misperception that the instant–read dial thermometer presented at the discussions was similar to a traditional dial thermometer and could be left in meat during the cooking process. Participants liked that dial thermometers specify the safe internal temperatures of different kinds of meat prominently on the dial. Additionally, participants liked that dial thermometers do not require batteries, which they believe are expensive to replace. Some participants preferred a digital thermometer because it measures the internal temperature more quickly than a dial thermometer and its temperature is easier to read.

[2]Because the discussion was not recorded in Ann Arbor, findings from the focus group with Boomburbs are not provided.

Although several participants liked T-stick thermometers, most participants would rather use a traditional food thermometer to check the doneness of hamburgers. One participant speculated T-stick thermometers might encourage people to purchase a food thermometer after testing their hamburgers with T-sticks and then realizing they had not cooked the meat to the safe internal temperature.

3.3.2 Non-Boomburbs

Most participants preferred a digital thermometer to a dial thermometer because it is easy to read, looks *"cool"* and *"modern,"* and is small enough *"to take to picnics, tailgates, or the beach."* Most participants said they would teach their children how to use a digital thermometer because it is easier to read than a dial thermometer. Some participants, however, did not think a digital thermometer was long enough to accurately measure the internal temperature of larger cuts of meat. A few participants preferred a dial thermometer because *"it is more reliable"* and does not require batteries. One participant only preferred a digital thermometer because it measures temperature in Celsius degrees.

Participants had mixed preferences for T-stick thermometers. Most Ann Arbor participants liked T-stick thermometers and described them as *"convenient."* Most participants in Grand Rapids did not like T-stick thermometers and said they would be unlikely to use them. Some participants would rather use a traditional food thermometer to check the doneness of hamburgers, including one participant who is *"not a fan of anything disposable."* One participant was concerned about the type of chemicals used in T-sticks and whether they could contaminate her food. One participant said she would not feel confident about the accuracy of T-sticks, and one participant said, *"they would get lost in a drawer."*

4 Participants' Evaluation of Campaign Materials

In this section, we describe Boomburb and non-Boomburb participants' initial impressions, likes, and dislikes of the brochure, print advertisement, radio PSA, and other materials developed for the "Is it DONE yet?" campaign. We summarize Boomburb and non-Boomburb participants' suggestions for improving each item. Additionally, we discuss whether Boomburb and non-Boomburb participants believed the materials had any impact on their awareness, knowledge, and usage of food thermometers and identify possible delivery mechanisms for the brochure.

4.1 BROCHURE

Participants evaluated the three-panel, color brochure (see Appendix D) that features the "USDA Recommended Internal Temperatures" graphic, pictures of prepared meat and poultry, a hamburger recipe, and Fight BAC!® messages. Key messages included CDC statistics on foodborne illness and "one out of every four hamburgers turns brown before it reaches a safe internal temperature." A few participants who attended the USDA Food Safety Mobile received a copy of the brochure. At least one Boomburb participant in Ann Arbor and one non-Boomburb participant in Lansing read the brochure prior to the group discussion.

4.1.1 Boomburbs

Most participants liked the brochure. One participant stated, *"I think it's a nice brochure. I like the way it gives the internal temperatures…that's helpful."* Another participant said, *"I like how it…answers every little question that people might have."*

Most participants found the brochure to be very informative because it contained new information. After reading the brochure, some participants said they would be more likely to use a food thermometer when cooking meat and poultry. One participant said, *"I don't want to get my children sick, my wife sick, or* [myself] *sick."* Another participant stated, *"I would use a food thermometer if I knew my kids' safety was being compromised."* Other participants echoed this concern. Although most participants viewed the primary purpose of a food thermometer to be food safety, at most one participant in each group said they would use a food thermometer to prevent overcooking their meat.

Participants identified the following possible delivery mechanisms for the brochure:

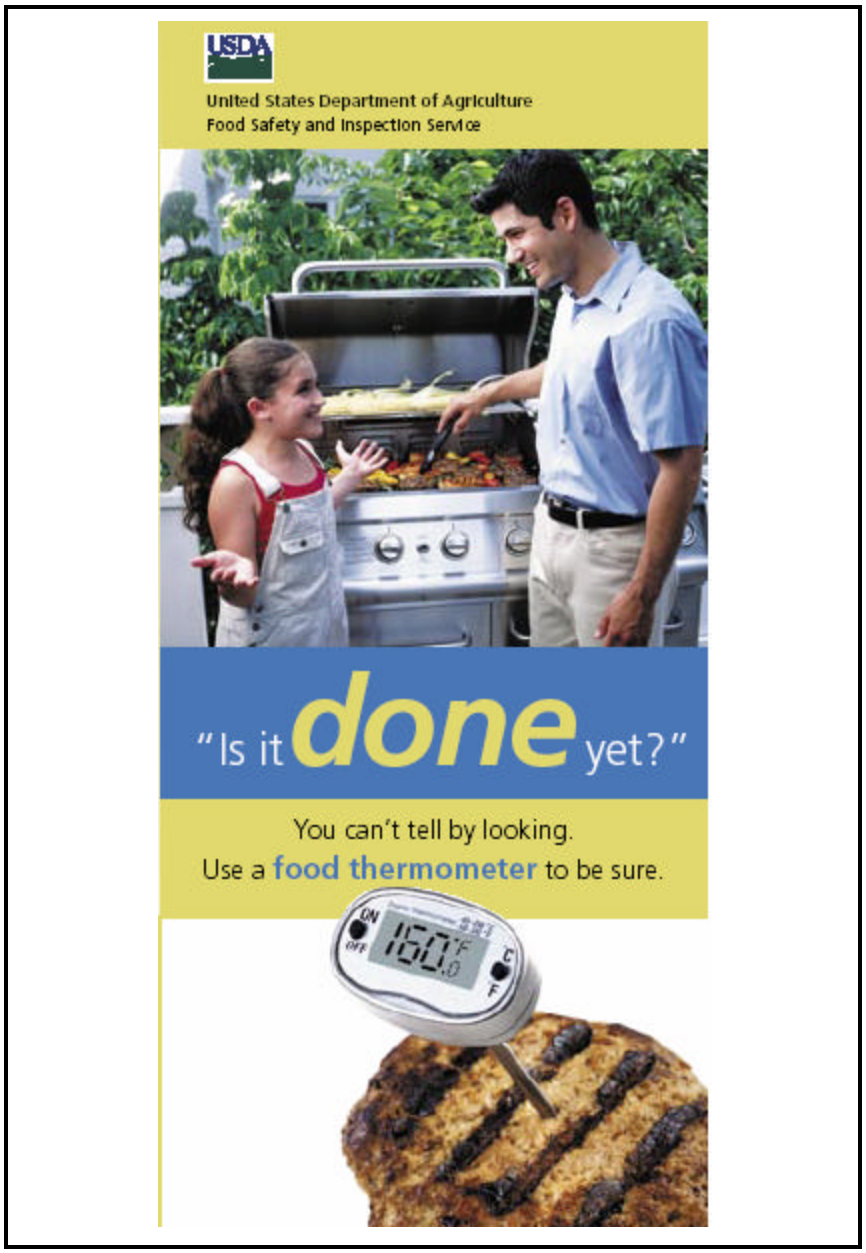
- grocery store meat departments (e.g., with the recipe cards);
- stores that sell outdoor grills;
- pediatricians' offices;
- baby stores; and
- schools and day care centers, so children would bring the message about food thermo meter usage home to parents.

We describe Boomburb participants' comments for each part of the brochure below.

Cover

- At least two participants in each location described the outside grill shown in the cover graphic (see Figure 4-1) as *"pretty fancy"* and were doubtful that many consumers could afford this type of grill. For this reason, some participants were concerned that the brochure would not appeal to all socioeconomic classes.
- Some participants in Grand Rapids and at least one participant in Lansing believed the intent of the brochure, at first glance, was to sell grills and suggested adding CDC statistics on foodborne illness to the front cover to get consumers' attention.

Figure 4-1. Brochure—Cover Graphic



- No participants had any comments on the picture of the hamburger; however, when the same picture was discussed in the print advertisement, many participants commented that the hamburger did not look like a beef burger and appeared to be undercooked.
- At least one participant in each location commented that they liked the campaign slogan, "Is it DONE yet?"

Text

Text from brochure: *"The Centers for Disease Control and Prevention estimate that harmful bacteria in food cause 5,000 deaths, 325,000 hospitalizations, and 76 million illnesses each year."*

- Many participants were unaware and surprised by the CDC statistics on foodborne illness (see sidebar). Most participants were surprised that the numbers were so high. A few participants wondered how many stomachaches are actually due to foodborne illness and speculated that foodborne illness might be more prevalent than they previously believed.
- A few participants in each location said they would be more likely to pick up and read the brochure if it included more statistics on foodborne illness. One participant stated, "*You have to scare me to get my attention."* Participants suggested adding information on the probability of getting foodborne illness from eating rare, medium, and well-done hamburgers and who is more susceptible to foodborne illness.
- A few participants suggested the brochure specify the types of foodborne bacteria and include pictures of bacteria; one participant said, *"That would scare me to use a meat thermometer."*
- Some participants were unaware and surprised by the message "one out of every four hamburgers turns brown before it reaches a safe internal temperature." One participant wondered, *"If a hamburger reaches 160°F, can it still be pink in the middl*e?" A few participants in each location questioned the validity of the message.

A few participants in each location said they would be more likely to pick up and read the brochure if it included more statistics on foodborne illness. One participant stated, "You have to scare me to get my attention."

- A few participants in Grand Rapids and Lansing suggested the brochure explain why USDA wants to educate consumers about using food thermometers and provide additional information on why it is important to use a food thermometer. At least one participant in Grand Rapids wondered about the safety of the meat in the United States after reading the brochure.
- Many participants were unaware that egg dishes need to be cooked to a safe internal temperature. One participant who had recently made a quiche stated, *"I kept thinking, 'Is it done?' It didn't occur to me to use my* [food] *thermometer."*
- A few participants liked that the brochure included a Web site address and said they would visit the site for more information.
- Participants offered the following suggestions for improving the brochure text:
  - use more "scare tactics" like the CDC statistics; for example, add information on foodborne pathogens,

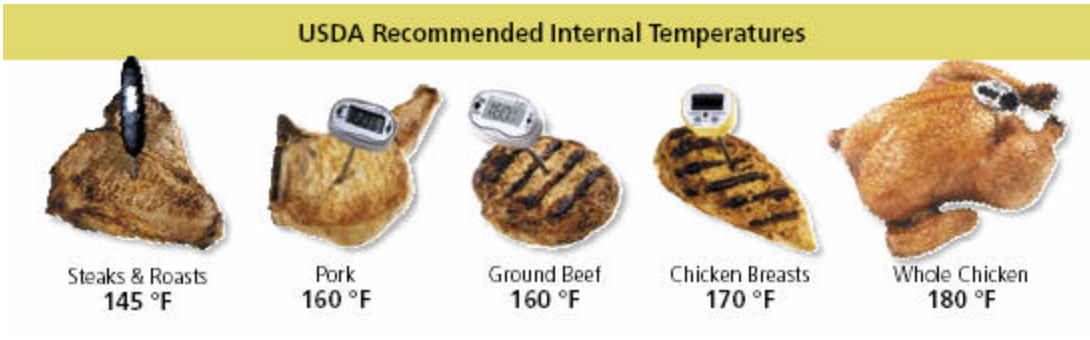
susceptible populations, and the symptoms of foodborne illness;

- provide more information on thermometer usage; for example, discuss the need to check each piece of meat when cooking multiple pieces (e.g., hamburgers) and describe how to determine the location of the thickest part of the meat;
- explain whether a digital or dial thermometer is more accurate;
- explain that internal temperatures do not vary depending on cooking method;
- emphasize that a food thermometer allows for better food presentation; and
- provide the price range of food thermometers and emphasize *"it's an affordable way for everyone to protect their family."*

Graphics and Color

- Most participants really liked the "USDA Recommended Internal Temperatures" graphic (see Figure 4-2). Participants believed this information is very useful to consumers. A few participants in two of the locations were unaware that there are different safe internal temperatures for different types and cuts of meat.

Figure 4-2. USDA Recommended Internal Temperatures



- Many participants liked the recipe and believed it would encourage consumers to pick up and keep the brochure; however, at least one participant in each location did not think the recipe on the back cover went with the safety theme of the brochure.

- Most participants liked the Fight BAC!® messages (see Figure 4-3) and believed this information is very useful to consumers. Some participants suggested expanding the messages in the brochure text; for example, remind the reader not to place cooked meat on the same plate as raw meat.

Figure 4-3. Fight BAC!® Messages

- Some participants liked the graphic of the mother showing her son how to use a food thermometer; however, a few participants in Ann Arbor believed the kitchen looked *"retro"* and *"outdated,"* and a few participants in Grand Rapids and Lansing believed the kitchen looked *"too fancy"* and would not appeal to all socioeconomic classes.
- In Grand Rapids, many participants liked the colors of the brochure, but many Ann Arbor and Lansing participants did not find the green very appealing.
- Participants offered the following suggestions for improving the graphics in the brochure:
  - add an egg dish and its safe internal temperature to the "USDA Recommended Internal Temperatures" graphic because egg dishes are mentioned in the text;
  - encourage readers to keep the "USDA Recommended Internal Temperatures" graphic in a convenient location (e.g., kitchen cabinet or cookbook) by making it detachable or a sticker;
  - use graphics illustrating different cooking methods (e.g., roasting or baking) and different types of food thermometers (e.g., dial);
  - prove the message "Seeing Isn't Believing" by showing a comparison of two pieces of meat and asking the reader to guess which one is cooked to the safe internal temperature;

In Grand Rapids, many participants liked the colors of the brochure, but many Ann Arbor and Lansing participants did not find the green very appealing.

- make the Fight BAC!® messages more prominent by moving the messages to the top and the recipe to the bottom or replacing the recipe with a discussion on the Fight BAC!® messages;
- use graphics that appeal to all socioeconomic classes, not just the upper class; and
- include a graphic showing the inside of a hamburger that is cooked to 160ºF.

4.1.2 Non-Boomburbs

Most participants liked the brochure because it "got to the point" and focused on food safety.

Most participants liked the brochure because it *"got to the point"* and focused on food safety. Participants described it as *"nice," "colorful," "useful," "informative," "thorough,"* and *"concise."* After reading the brochure, some participants said they would be more likely to use a food thermometer when cooking meat and poultry, especially if they were given a free one. Others said they would be unlikely to start using a food thermometer because they tend to overcook their meat and, therefore, do not believe it is necessary to verify doneness.

Participants who speculated they may try using a food thermometer would do so for safety concerns. One participant said, *"I'm a health nut. I eat healthy. This* [using a food thermometer] *would be a good thing to try for me and my son."* Another participant stated, *"Obviously the government is trying to tell us something, and we should heed their advice."* A few participants were curious to test their cooking experience against a food thermometer. After reading the brochure, at least one participant in Grand Rapids wondered about the safety of the meat in the United States. One participant wondered, "*What is going on with the meat if they* [the government] *got to teach the public?"*

Participants identified the following possible delivery mechanisms for the brochure:

- schools,
- pediatricians' offices,
- grocery store meat departments,
- direct mailings, and
- Sunday newspapers.

We describe non-Boomburb participants' comments on each part of the brochure below.

Cover

- A few participants mentioned they liked the slogan, "Is it DONE yet?"
- Many participants liked the grill on the front cover and commented, *"That's a nice grill."*
- No participants had any comments on the picture of the hamburger; however, when the same picture was discussed in the print advertisement, many participants commented that the hamburger did not look like a beef burger and appeared to be undercooked.

Text

A few participants wondered how many stomachaches are actually due to foodborne illness, speculating that foodborne illness might be more prevalent than they previously believed.

- Most participants found the brochure informative because it contained information that was new to them. Many participants were unaware of and surprised by the CDC statistics on foodborne illness. A few participants wondered how many stomachaches are actually due to foodborne illness, speculating it may be more prevalent than they previously believed.
- A few participants wanted more specific information on foodborne illness; for example, who is most susceptible to foodborne illness and how illnesses are determined and documented.
- Several participants in each location were unaware that the internal color of meat is not an indicator of doneness and were surprised by the message, "one out of every four hamburgers turns brown before it reaches a safe internal temperature." A few participants would like more information on how this statistic was determined.
- Many participants were unaware that egg dishes need to be cooked to a safe internal temperature.
- Participants offered the following suggestions for improving the brochure text:
  - explain how to properly use a food thermometer;
  - add more specific information on foodborne illness; and
  - provide a Spanish version of the brochure.

Graphics and Color

- Most participants liked the recipe shown on the back cover and said it would encourage consumers to *"pick it [the brochure] up and read it."* Only a few participants in each location believed the recipe was unnecessary and suggested dropping it from the brochure.

- Many participants liked the Fight BAC!® messages. For some participants, this information was new; for example, one participant who leaves leftovers to cool at room temperature learned that leftovers need to be refrigerated promptly.
- Many participants liked the "USDA Recommended Internal Temperatures" graphic because it was simple but informative. A few participants mentioned they were unaware there are different safe internal temperatures for different types of meat.
- Some participants liked the graphic of the mother teaching her son how to use a food thermometer.[1] One participant stated, "*It brings it home. The little kid is somebody that you want to make sure doesn't get sick."*

One participant stated, "The pictures show [that] you don't have to scorch it [the meat] for it to be done."

- A few participants in Ann Arbor and Lansing said the pictures of prepared food (i.e., pork chops and steak) looked appetizing and helped to demonstrate that using a food thermometer helps to prevent overcooking. One participant stated, *"The pictures show* [that] *you don't have to scorch it* [the meat] *for it to be done."*
- Most participants liked the colors used in the brochure. One participant stated, *"They're nice and bright."* Unlike the Boomburb groups, no participants mentioned that they found the green color unappealing.
- Participants offered the following suggestions for improving the graphics in the brochure:
  - add an egg dish and its safe internal temperature to the "USDA Recommended Internal Temperatures" graphic because egg dishes are mentioned in the text;
  - add the internal temperature chart as shown on the magnet;
  - make the Fight BAC!® messages more prominent by moving the graphic to the top of the back panel, making the recipe smaller, or placing the graphic in a separate panel;
  - use persons of all races and classes in the graphics, *"not just upper class;"*
  - display the Meat & Poultry Hotline number and Web site address more prominently;

[1]This graphic is discussed in more detail in the print advertisement section of this report.

- encourage readers to cut out and save the "USDA Recommended Internal Temperatures" graphic by using perforations or a scissors symbol;
- demonstrate the correct position of food thermometers in the "USDA Recommended Internal Temperatures" graphic;
- display the safe internal temperature on each food thermometer presented in the "USDA Recommended Internal Temperatures" graphic more prominently; and
- use a dial thermometer in the "USDA Recommended Internal Temperatures" graphic so people know they do not have to buy and use a digital thermometer.

4.2 PRINT ADVERTISEMENT

Figure 4-4 displays the print advertisement for the "Is it DONE yet?" campaign. The advertisement features the message "1 out of every 4 hamburgers looks done before it has reached a safe internal temperature of 160°F," a graphic of a mother showing her son how to use a food thermometer, and a hamburger with a digital food thermometer. Prior to the focus group discussions, some participants in Ann Arbor saw the advertisement in their local newspaper, and at least two participants subsequently attended the Food Safety Mobile because of the ad. In Grand Rapids, one non-Boomburb participant recalled seeing the advertisement.

We discuss Boomburbs' and non-Boomburbs' comments about the ad below.

4.2.1 Boomburbs

- Many participants liked the advertisement. One participant said, *"That's a great ad. The colors are wonderful."* Some participants liked that the graphic showed a mother teaching her son how to use a food thermometer and the offer for a free food thermometer.
- Several participants in each location did not like the colors (pink and green) of the advertisement and how the colors coordinated with the color of the son's and mother's shirts.
- A few participants in each location described the mother's attire and the kitchen as "unrealistic" or "not typical" and "too perfect" or "expensive-looking."

Figure 4-4. Print Advertisement

Many participants in each location said the picture of the hamburger did not look done and did not look like a beef burger.

- Many participants in each location said the picture of the hamburger did not look done and did not look like a beef burger.
- Participants offered the following suggestions for improving the advertisement:
  - add the CDC statistics on foodborne illness (from the brochure) and text that employs scare tactics, like the statement *"keep your family safe, use a food thermometer,"* to grab the reader's attention;
  - use a hamburger graphic that looks more realistic;
  - replace the pink and green with different colors;
  - inform the reader that using a food thermometer is an easy way to keep your family safe; for example, *"it* [using a food thermometer] *only takes a second*

and is a quick and convenient way to protect your family;"

- include text or graphics with chicken breasts because some consumers do not eat hamburgers often; and
- add a picture of a hamburger that looks done but has not yet reached 160ºF, so the reader can compare it to a hamburger that has reached a safe internal temperature.

4.2.2 Non-Boombburbs

- Most participants liked the advertisement. Some participants described the advertisement as *"visually appealing"* and liked how the colors of the ad matched the color of the son's and mother's shirts.

Most participants in Ann Arbor and Grand Rapids liked the ad's pink and green colors. Some participants in Lansing liked them, but other participants suggested using more "bold" or "prominent" colors (e.g., red).

- Most participants in Ann Arbor and Grand Rapids liked the ad's pink and green colors. Some participants in Lansing liked them, but other participants suggested using more *"bold"* or *"prominent"* colors (e.g., red).
- Some participants liked that the graphic showed a mother teaching her son how to use a food thermometer. A few participants in Lansing and Grand Rapids thought the kitchen grill in the graphic was not realistic; one participant said, *"That's not something most people have in their kitchen."*
- Several participants in Ann Arbor liked that the ad did not look like it was *"trying to sell something,"* but rather it was *"trying to teach"* or *"warn the reader to check your meat to protect your children."* Some participants in Grand Rapids, however, did not like that the ad looked like it was trying to sell something. Participants in Grand Rapids suggested the ad should look more like a PSA by emphasizing *"an important message from USDA"* or including the CDC statistics on foodborne illness.
- Some participants said the advertisement included new information about food thermometer usage, such as using a food thermometer when cooking hamburgers, but a few participants wanted to know *why* they needed to use a food thermometer when cooking hamburgers. At least one participant in each location was unaware and/or startled by the message "one out of every four hamburgers turns brown before it reaches a safe internal temperature."
- At least one participant in two locations suggested placing an ad on billboards instead of in newspapers and magazines.

- Participants discussed whether reading the advertisement would prompt them to start using a food thermometer. At least one participant in each location said the ad would encourage him/her to be more conscious of the need to cook hamburgers to a safe internal temperature because *"looking isn't enough"* to determine doneness. At least one participant in each location said he/she might try using a food thermometer or would get more information by calling the Meat & Poultry Hotline or visiting the Web site (www.IsItDoneYet.gov).
- Participants offered the following suggestions for improving the advertisement:
  - add the "USDA Recommended Internal Temperatures" graphic;
  - do not limit the ad to hamburgers because some consumers do not eat hamburgers often;
  - use a hamburger graphic during the summertime and use graphics with other types of meat during other seasons (i.e., turkeys at Thanksgiving);
  - use a graphic with an outdoor grill because more people cook hamburgers outside;
  - add the CDC statistics on foodborne illness and other statistics to justify why there is a need to use a food thermometer when cooking meat and poultry;
  - make the picture of the hamburger look more realistic; and
  - stress the dangers children face if they contract foodborne illness.

4.3 RADIO PSA

Appendix D provides the scripts for the 30-second and 60-second radio PSAs developed for the "Is it DONE yet?" campaign. The PSAs feature a man cooking hamburgers on his outdoor grill while explaining to his impatient, and obviously hungry, friend that *"you can't tell if they're safe to eat by the color of the meat."* The man continues to explain to his friend that using a food thermometer is the only safe and effective way to check the doneness of meat.

After hearing the PSA during the focus groups, one or more participants in each location recalled hearing the PSA on a local radio station. We present their comments below.

4.3.1 Boomburbs

- Most participants liked the PSA and described it as *"humorous but informative."* Some participants said the PSA caught their attention and was memorable. Some liked the slogan, "Is it DONE yet?" and described it is as *"catchy."* One participant said, *"I would have remembered that [the PSA]."*
- Several participants in each location said if they heard the PSA on the radio, they would likely tune it out or change the station. A few participants believed a billboard would be more effective than a PSA.
- Some participants believed the PSA presented a clear message about food thermometer usage and said the PSA provided them with sufficient information to evaluate whether they should start using a food thermometer. Some participants said they were previously unaware of the message, "one out of every four hamburgers turns brown before it reaches a safe internal temperature."
- Some participants said the PSA heightened their awareness about the need to use a food thermometer. One participant who had heard the PSA on a local radio station recalled thinking, *"I'm pretty confident [about my cooking] but maybe I shouldn't be."*
- Some participants believed the focus on hamburgers was too restrictive and were concerned consumers would mistakenly think they should only use a food thermometer when grilling hamburgers. Participants suggested including other types of meat (e.g., chicken breasts) in the PSA and that the PSA should state that a food thermometer should be used to cook all cuts of meat with any cooking method.
- Some participants believed the PSA was great for the summertime when many people cook on the grill but suggested developing another PSA that focuses on indoor cooking for the remainder of the year. Participants suggested a PSA set indoors should include a woman cooking at the stove or oven.

Several participants believed the PSA "could be more shocking" and should focus more on why children are susceptible to foodborne illness and how their parents can protect them by using a food thermometer.

- Several participants believed the PSA *"could be more shocking"* and should focus more on why children are susceptible to foodborne illness and how their parents can protect them by using a food thermometer. Participants thought an emphasis on these messages would better capture listeners' attention. One participant stated, *"If you want parents to use a food thermometer, the health of our children is the hook."* To improve the PSA, one participant suggested mentioning in the PSA, *"Johnny got sick yesterday at a picnic, and…"* A few participants suggested the PSA should mention specific foodborne bacteria and how the bacteria can affect their children.
- Many participants preferred the 30-second PSA to the 60-second version. Some found the music in the 60-second PSA distracting, and a few did not like that it compared a food thermometer to a video game and believed it unnecessary to mention the different types of food thermometers available.
- In summary, participants offered the following suggestions for improving the PSA:
  - emphasize the message that using a food thermometer can protect your children's health;
  - don't limit the PSA to cooking hamburgers; include other meats and develop separate PSAs for other meats;
  - add the voices of more children and a sizzling sound to the grill;
  - have a man and wife cook at the grill rather than two men; and
  - use a memorable pop song or a celebrity's voice to improve the listener's recollection of the PSA.

4.3.2 Non-Boomburbs

- At least one participant in each location recalled hearing the PSA on a local radio station. Although one participant was surprised to hear a PSA promoting food thermometer usage, he *"related to it"* and thought that not using a food thermometer was *"a bad habit"* that he needs to break.

Many participants liked the PSA, and some described it as "funny." A few liked that it exemplified that men are concerned about protecting their children from foodborne illness.

- Many participants liked the PSA, and some described it as *"funny."* A few liked that it exemplified that men are concerned about protecting their children from foodborne illness.
- One participant was impressed by the "new" technology and would like to get a digital thermometer that beeps when the meat has reached its safe internal temperature; a few participants said the sound of the "beep" of the food thermometer grabbed their attention.
- Many participants said the PSA did not catch and hold their attention. As one participant stated, if they heard the PSA on the radio, *"It would go in one ear and out the other"*; and others said they would change the station. To grab their attention, some participants suggested the PSA sound more like a PSA and not a commercial. One participant suggested beginning the PSA with "this is a public service announcement from USDA" and end with "for more information call or go to USDA's Web site for more information."
- Some participants suggested the PSA should be *"more direct and to the point"* and include statistics on foodborne illness and the safe internal temperatures of other meats.
- Some participants preferred the 60-second PSA over the 30-second version because it was *"more realistic," "less scripted," "more informative,"* and provided information about color not being an indicator of doneness. After listening to the 30-second PSA, a few participants in one group thought they caught the PSA in the middle of it. In addition, a few participants in each location liked that the Web site (www.IsItDoneYet.gov) was repeated in the 60-second PSA.
- In summary, participants offered the following suggestions for improving the PSA:
  - make the PSA more informative by adding additional information, such as statistics on foodborne illness and
  - make the PSA sound more like a PSA and not a commercial.

4.4 MAGNET

Figure 4-5 presents the refrigerator magnet developed for the "Is it DONE yet?" campaign. The magnet can be separated into two parts. The inside part lists the "USDA Recommended Internal Temperatures" and the campaign Web site address (www.IsItDoneYet.gov). The outside part, which can be used as a picture frame, displays the "USDA Recommended Internal Temperatures" graphic, the Meat & Poultry Hotline, the "Is it DONE yet?" campaign Web site address, and the USDA logo.

We present Boomburb and non-Boomburb participants' comments on the magnet below.

4.4.1 Boomburbs

Several participants stated, "This is great!" or "This is handy!" One participant said, "This is one magnet that won't be in the junk drawer."

- Most participants really liked the magnet and said they would place it on their refrigerators. Several participants stated, *"This is great!"* or *"This is handy!"* One participant said, *"This is one magnet that won't be in the junk drawer."* Most participants specifically liked that the USDA logo was prominently displayed and that the internal temperatures for a variety of foods, including egg dishes, were provided.
- Many participants did not particularly like the picture frame. Several participants in Grand Rapids, however, liked the frame and said they would use it to display their children's school pictures.
- Several participants in each location did not like the green color used on the magnet (the same green color used in the brochure).
- To improve the magnet, some participants suggested that the USDA logo, Web site address, and Hotline be placed on both pieces of the magnet in case the two pieces got separated. Also, a few participants suggested adding instructions on how to use a food thermometer.
- One Lansing participant who really liked the magnet but cannot place magnets on his refrigerator suggested developing a bookmark or recipe card similar to the magnet. He and a few participants in other locations also suggested designing the magnet so one has the option to use it as is or peel it off and stick it on the inside of a kitchen cabinet door or recipe book cover.

Figure 4-5. Refrigerator Magnet

4.4.2 Non-Boomburbs

- Most participants really liked the magnet and described it as *"simple," "straightforward,"* and *"convenient."* Most participants liked that they could conveniently refer to it when cooking meat and poultry. Participants specifically liked that the internal temperatures for a variety of food, including egg dishes, were listed. Some participants liked that the USDA logo was prominently displayed, and a few participants liked the use of color gradation to distinguish the range of temperatures.

- Many participants said the magnet was very informative. After discussing the magnet, a few participants said they were *"hooked"* and said they plan to start using a food thermometer when cooking meat and poultry. A few participants were curious to test their cooking experience against a food thermometer.
- Most participants did not find the frame of the magnet appealing. Because many participants would discard the frame, they suggested adding the Meat & Poultry Hotline to the inner magnet with the Web site address.
- Some participants suggested including the magnet inside food thermometer packaging. Others suggested distributing the magnet at schools to educate children about food thermometer usage, so children can then educate their parents.
- Participants offered the following suggestions for improving the magnet:
  - make the slogan "Is it DONE yet?" more prominent;
  - use the "USDA Recommended Internal Temperatures" graphic as a separate magnet, so consumers could adhere it to smaller areas (e.g., stovetops);
  - use a more prominent color rather than green; and
  - add text describing how to use a food thermometer properly.

4.5 THERMY™ THERMOMETER

Participants in the Ann Arbor and Grand Rapids groups discussed the Thermy™ thermometer presented in Figure 4-6. We summarize their comments below.

4.5.1 Boomburbs

Many participants really liked the Thermy™ thermometer. They described it as *"cool"* and liked that it had a magnet for convenient storage and easy access. Several participants in two locations were concerned about the safety of the thermometer and worried it looked too much like a toy and that their children would want to play with it. Some participants, however, said they would teach their children how to use it safely. A few participants thought their children would encourage them to use the Thermy™ thermometer to determine the doneness of meat and poultry.

Figure 4-6. Thermy™ Thermometer

4.5.2 Non-Boomburbs

Many participants really liked the Thermy™ thermometer, particularly its magnet; as one participant stated, you "*can stick it on the refrigerator and not search for it in a drawer.*" Several participants liked that the thermometer is digital and displays the safe internal temperatures on its covering. A few participants questioned the durability of the thermometer; they thought the plastic thermometer looked *"cheap"* and *"not durable."* No participants mentioned they had concerns about the safety of the thermometer around children.

4.6 "IS IT DONE YET" WEB SITE

Boomburbs in Ann Arbor and Grand Rapids discussed the "Is it DONE yet?" (www.isitdoneyet.gov) Web site. Appendix D provides a screen shot of the Web site that was distributed to participants at the focus groups. We discuss their comments below.

- Participants generally liked the Web site but believed it could be *"more fun" and "flashy"* and include *"more visuals."* A few participants said the Web site looked *"helpful"* and *"easy to navigate."*
- Several participants liked the "Did You Know" icon and suggested adding more quizzes to the Web site. A few participants also liked the feature "Questions about Food Safety: Ask Karen" and that the Meat & Poultry Hotline was prominently displayed.
- To improve the Web site, participants suggested adding a link to CDC statistics on foodborne illness and featuring the "USDA Recommended Internal Temperatures" graphic.
- Although most participants in each group during this part of the discussion said they would be unlikely to visit the Web site, some participants mentioned they liked that the campaign materials (e.g., brochure) included a Web site address for more information. When we discussed the campaign materials, a few participants said they might visit the Web site for more information (e.g., on foodborne illnesses).

Several participants liked the "Did You Know" icon and suggested adding more quizzes to the Web site.

5 Conclusion and Recommendations

This section concludes the report with a summary of the key findings and our recommendations for improving the "Is it DONE yet?" campaign materials. Although consumer focus group findings should not be generalized to the general population in any statistical sense, the focus group findings do provide useful insights on the impact the campaign had on participants' food thermometer awareness, knowledge, and usage and ways to improve the "Is it DONE yet?" campaign materials. Because the campaign is targeted to Boomburbs, our key findings and recommendations are based on the findings from the focus groups with Boomburbs; however, participants from both groups held similar opinions on similar topics.

The focus group findings suggest the pilot campaign increased participants' awareness of food thermometer usage. Based on the estimated campaign exposure rates, at least 43 percent of the individuals contacted to participate in the study had heard or read about food thermometer usage during the two months prior to the study. Participants heard or read about thermometer usage through visits to the USDA Food Safety Mobile, local newspaper articles or television news stories on food thermometer usage, and other sources (e.g., cooking magazines and the Food Network). Because some individuals heard or read information that was not part of the campaign, the exposure rates may be overstated.

The focus group findings suggest exposure to the campaign materials increased participants' knowledge of food thermometer usage. In particular, some participants learned about the need to use a food thermometer to check that meat

and poultry have been cooked to a safe internal temperature. Prior to the study, some participants either overcooked meat and poultry or relied on their previous cooking experience or time to determine doneness. Some participants were unaware and surprised by the message "one out of every four hamburgers turns brown before it reaches a safe internal temperature." Many participants were unaware and surprised by the CDC statistics on foodborne illness.

After campaign exposure, participants' food thermometer ownership and usage increased. Seven of the 10 participants who did not own a food thermometer prior to the campaign purchased a food thermometer or received a free food thermometer by visiting the USDA Food Safety Mobile. Seven participants tried using a food thermometer when cooking large pieces of meat or poultry, and at least five participants have tried using a food thermometer when cooking hamburgers and/or chicken breasts. Some participants also started using a food thermometer or used a food thermometer more frequently or for smaller cuts of meat, such as hamburgers and chicken breasts.

These findings suggest the pilot campaign helped to increase consumers' awareness, knowledge, and usage of food thermometers to check the doneness of meat and poultry.

Based on the focus group findings with Boomburbs, we offer the following recommendations for improving the "Is it DONE yet?" campaign materials.

Brochure

- provide more information and statistics on foodborne illness (e.g., susceptible populations, foodborne pathogens, and symptoms) to get consumers' attention;
- provide additional information on how to properly use different types of food thermometers;
- add a picture of an egg dish and its safe internal temperature to the "USDA Recommended Internal Temperatures" graphic;
- use a hamburger graphic that looks more realistic;
- use graphics to illustrate different cooking methods and different types of food thermo meters;

- include an illustration that compares two pieces of meat that look similar but have and have not reached a safe internal temperature; and
- encourage readers to cut out and keep the "USDA Recommended Internal Temperatures" graphic by using perforations or a scissors symbol.

Print Advertisement

- add CDC and other statistics on foodborne illness;
- use a hamburger graphic that looks more realistic;
- include an illustration that compares two pieces of meat that look similar but have and have not reached a safe internal temperature; and
- consider changing the colors of the son's and mother's shirts so they do not coordinate with the colors of the ad (pink and green).

Radio PSA

- focus more on how foodborne illness can affect a child's health and
- consider developing separate PSAs that address other foods and cooking methods, especially during nonsummertime months.

Magnet

- add the Meat & Poultry Hotline and USDA logo to the inner magnet in case the two pieces get separated or
- consider combining the two magnets into one.

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