Appendix A:
Screening Questionnaire
BOOMBURBS
Focus Groups to Test Materials for the “Is it DONE yet?” Campaign
Screening Questionnaire for Boomburbs
Location—Date, Time

Name: ____________________________________________
Address: ____________________________________________
City: ___________________________ State: ___________ Zip: ___________________________
Home Phone: ____________________________ Work Phone: ____________________________

Hello, this is ______________ from [FACILITY], a local market research firm. May I please speak
with the male/female head of household?

(Hello, this is ______________ from [FACILITY], a local market research firm.) We are working
with RTI, a nonprofit research organization, and the U.S. Department of Agriculture (USDA) on a
research study about cooking and would like to include your opinions. We are holding a group
discussion on [DATE] at our office in [LOCATION] with 7 other people like yourself. The
discussion group starts at [TIME] and will last no longer than two hours. This discussion group is
for research purposes only and is in no way sales related. As a token of our appreciation, you will
receive $XX and a free gift for participating in this study.

First, however, I would like to ask you a few questions to see if you qualify for the study.

Record Gender — Do not ask. (Recruit 3-4 males to show.)
☐ Male
☐ Female

1. In the past 2 months, have you heard or read anything about food thermometer usage?
  ☐ Yes Continue.
   ☐ No Thank the respondent and terminate.

2. Do you have any children who are 10 years old or younger living in your home?
   ☐ Yes Continue.
   ☐ No Thank the respondent and terminate.

3. Do you have primary or shared responsibility for cooking for this household?
   ☐ Yes Continue.
   ☐ No Ask to speak with that person. Repeat introduction.
4. Are you currently a vegetarian, that is, you do not eat meat or poultry?
   - Yes
   - No

5. About how many times a week do you prepare meat and poultry at home? Would you say… (Read list.)
   - Less than once a week
   - At least once a week
   - About twice a week
   - Three or more times a week

6. Which of the following categories best describes your age? (Read list. Recruit a mix of ages.)
   - Under 18
   - 18 to 35
   - 36 to 55
   - 56 or older

7. What is the last year of school you completed? (Read list.)
   - Less than a high school degree
   - High school graduate or GED
   - Some college or 2-year college degree
   - College graduate or postgraduate degree

8. What category best describes your total household income before taxes last year? (Read list. Recruit a mix of income levels.)
   - Less than $25,000
   - $25,000 - $49,999
   - $50,000 - $74,999
   - $75,000 - $99,999
   - More than $100,000

9. Are you of Hispanic or Spanish origin?
   - Yes
   - No
10. How would you describe your race? *(Read list. Recruit a mix of races.)*
   - [ ] Caucasian or White
   - [ ] African-American or Black
   - [ ] Asian or Pacific Islander
   - [ ] Other

11. In the past 5 years, have you, or any member of your household, worked for any of the following? *(Read list. If YES to any of these, thank the respondent and terminate.)*
   - [ ] A market research, advertising, or public relations firm
   - [ ] A grocery store, restaurant, food processing company, or a food service kitchen
   - [ ] The federal government
   - [ ] The healthcare industry

12. Have you participated in a focus group or paid research discussion in the past 6 months?
   - [ ] Yes  
     *Thank the respondent and terminate.*
   - [ ] No  
     *Continue.*

Great! You qualify for our study. The discussion group is [DATE] and begins promptly at [TIME]. You will receive a $XX cash honorarium and a free gift for your time and opinions.

Would you like to participate in the group discussion at [TIME] on [DATE]?
   - [ ] Yes  
     *Continue.*
   - [ ] No  
     *Thank the respondent and terminate.*

May I please have your name and address so that I may send you a confirmation letter with directions to our offices? *(Confirm address and phone number.)* Please arrive at least 15 minutes prior to the group.

If you have any questions or find that you are unable to attend, please call [PHONE] as soon as possible. Thank you very much. We look forward to seeing you on [DATE] at [TIME].
NON-BOOMBURBS
Focus Groups to Test Materials for the “Is it DONE yet?” Campaign
Screening Questionnaire for non-Boomburbs
Location—Date, Time

Name: ____________________________
Address: ____________________________
City: __________________ State: ______ Zip: __________________
Home Phone: __________________ Work Phone: ____________

Hello, this is _____________ from [FACILITY], a local market research firm. May I please speak with the male/female head of household?

(Hello, this is _____________ from [FACILITY], a local market research firm.) We are working with RTI, a nonprofit research organization, and the U.S. Department of Agriculture (USDA) on a research study about cooking and would like to include your opinions. We are holding a group discussion on [DATE] at our office in [LOCATION] with 7 other people like yourself. The discussion group starts at [TIME] and will last no longer than two hours. This discussion group is for research purposes only and is in no way sales related. As a token of our appreciation, you will receive $XX and a free gift for participating in this study.

First, however, I would like to ask you a few questions to see if you qualify for the study.

Record Gender — Do not ask. (Recruit 3-4 males to show.)

☐ Male
☐ Female

1. In the past 2 months, have you heard or read anything about food thermometer usage?
   ☐ Yes  Continue.
   ☐ No  Thank the respondent and terminate.

2. Do you have any children who are 10 years old or younger living in your home?
   ☐ Yes  Continue.
   ☐ No  Thank the respondent and terminate.

3. Do you have primary or shared responsibility for cooking for this household?
   ☐ Yes  Continue.
   ☐ No  Ask to speak with that person. Repeat introduction.
4. Are you currently a vegetarian, that is, you do not eat meat or poultry?
   □ Yes  
   □ No  

   Thank the respondent and terminate.  
   Continue.

5. About how many times a week do you prepare meat and poultry at home? Would you say… (Read list.)
   □ Less than once a week  
   □ At least once a week  
   □ About twice a week  
   □ Three or more times a week  

   Thank the respondent and terminate.  
   Thank the respondent and terminate.  
   Thank the respondent and terminate.  
   Continue.

6. Which of the following categories best describes your age? (Read list. Recruit a mix of ages.)
   □ Under 18  
   □ 18 to 35  
   □ 36 to 55  
   □ 56 or older  

   Thank the respondent and terminate.  
   Continue.  
   Continue.  
   Thank the respondent and terminate.

7. What is the last year of school you completed? (Read list. Recruit a mix of educations.)
   □ Less than a high school degree  
   □ High school graduate or GED  
   □ Some college or 2-year college degree  
   □ College graduate or postgraduate degree  

   Continue.  
   Continue.  
   Continue.  
   Thank the respondent and terminate.

8. Are you of Hispanic or Spanish origin?
   □ Yes  
   □ No

9. How would you describe your race? (Read list. Recruit a mix of races.)
   □ Caucasian or White  
   □ African-American or Black  
   □ Asian or Pacific Islander  
   □ Other
10. In the past 5 years, have you, or any member of your household, worked for any of the following? (Read list. If YES to any of these, thank the respondent and terminate.)
   - A market research, advertising, or public relations firm
   - A grocery store, restaurant, food processing company, or a food service kitchen
   - The federal government
   - The healthcare industry

12. Have you participated in a focus group or paid research discussion in the past 6 months?
   - Yes  Thank the respondent and terminate.
   - No    Continue.

Great! You qualify for our study. The discussion group is [DATE] and begins promptly at [TIME]. You will receive a $XX cash honorarium and a free gift for your time and opinions.

Are you available to participate in the group discussion at [TIME] on [DATE]?
   - Yes    Continue.
   - No     Thank the respondent and terminate.

May I please have your name and address so that I may send you a confirmation letter with directions to our offices? (Confirm address and phone number.) Please arrive at least 15 minutes prior to the group.

If you have any questions or find that you are unable to attend, please call [PHONE] as soon as possible. Thank you very much. We look forward to seeing you on [DATE] at [TIME].
Appendix B: Prediscussion Questionnaire
You have been asked to participate in this study because you have recently heard or read about food thermometer usage in the past 2 months. Please answer the following questions about your food thermometer usage.

1. Prior to reading or hearing about food thermometer usage, did you own a food thermometer?
   a. Yes
   b. No  **GO TO QUESTION 5**

2. Prior to reading or hearing about food thermometer usage, how often did you use a food thermometer when cooking turkeys, roasts, or other large pieces of meat?  **(Circle one.)**
   a. Always
   b. Often
   c. Sometimes
   d. Never
   e. Did not cook turkeys, roasts, or other large pieces of meat

3. Prior to reading or hearing about food thermometer usage, how often did you use a food thermometer when cooking hamburgers?  **(Circle one.)**
   a. Always
   b. Often
   c. Sometimes
   d. Never
   e. Did not cook hamburgers

4. Prior to reading or hearing about food thermometer usage, how often did you use a food thermometer when cooking chicken breasts?  **(Circle one.)**
   a. Always
   b. Often
   c. Sometimes
   d. Never
   e. Did not cook chicken breasts

5. Where did you hear or read about food thermometer usage?  **(Circle all that apply.)**
   a. Radio advertisement
   b. Radio news story
   c. Television advertisement
   d. Television news story
   e. Newspaper advertisement
   f. Newspaper article
   g. Magazine advertisement
   h. Magazine article
   i. USDA Food Safety Mobile
   j. Other (specify):  ____________

6. After reading or hearing about food thermometer usage, did you purchase or receive a food thermometer?
   a. Yes
   b. No

7. After reading or hearing about food thermometer usage, how often do you use a food thermometer when cooking turkeys, roasts, or other large pieces of meat?  **(Circle one.)**
   a. Always
   b. Often
   c. Sometimes
   d. Never
   e. Do not cook turkeys, roasts, or other large pieces of meat
8. After reading or hearing about food thermometer usage, how often do you use a food thermometer when cooking hamburgers? *(Circle one.*)
   a. Always
   b. Often
   c. Sometimes
   d. Never
   e. Do not cook hamburgers

9. After reading or hearing about food thermometer usage, how often do you use a food thermometer when cooking chicken breasts? *(Circle one.*)
   a. Always
   b. Often
   c. Sometimes
   d. Never
   e. Do not cook chicken breasts

10. Are you male or female?
    a. Male
    b. Female

11. What is your age? *(Circle one.*)
    a. 18–25
    b. 26–35
    c. 36–59
    d. 60 years or older

12. What is the last year of school you completed? *(Circle one.*)
    a. Less than a high school degree
    b. High school graduate or GED
    c. Some college or 2-year college degree
    d. College graduate (4-year or postgraduate study)

13. Are you of Hispanic or Spanish origin?
    a. Yes
    b. No

14. How would you describe your race? *(Circle one.*)
    a. Caucasian or white
    b. African-American or black
    c. Asian or Pacific Islander
    d. Other

Thank you!
Appendix C: Moderator Guide
I. **Introduction—Welcome Group and Establish Tone (5 minutes)**

- **Who we are and who we represent**
  - Introduce moderator and co-moderator
  - Study being sponsored by USDA, FSIS

- **Why you have been asked to participate**
  - You have recently heard or read information about food thermometer usage in the past two months
  - You have children under the age of 10 years old

- **The purpose of tonight’s discussion is to discuss your opinions and preferences for educational materials recently developed by USDA for a consumer campaign on food thermometer usage.**

- **We did not develop any of the materials we will discuss tonight, so we will not be offended if you have any criticisms. We encourage you to be honest and share your opinions.**

- **How the discussion group will work**
  - Discussion will last about an hour and a half.
  - Discussion is being audiotaped and videotaped, but in summary reports no names will be attached to responses.
  - Government and university representatives viewing behind one-way mirror.
  - We would like the discussion to be open and informal and encourage interaction.
  - We would like to hear from everyone in the group.
  - No right or wrong answers or ideas—we want to hear all YOUR opinions.
  - One person talk at a time.
  - Turn off cellular phones.

- **Participant introductions—first name, your favorite meal to prepare, and the ages of your children.**
II. Thermometer Usage (25 minutes)

- Prior to reading or hearing about food thermometer usage, did you use a food thermometer when cooking meat or poultry?
  - If yes, for what foods did you use a food thermometer? [Probe: hamburgers]
  - If yes, did you use a food thermometer every time you cooked or only some of the time? If not every time, why?
  - If no, why didn’t you use a food thermometer?

- What did you hear or read about food thermometer usage in the past 2 months? Explain.
  - Was it new information or something you already knew?
  - Where did you hear or read about it? [Probe: Mobile, advertisement, radio. Show local newspaper and magazine advertisements and articles.]

- Based on what you read or heard, did you start using a food thermometer when cooking meat and poultry? Why?
  - If yes, for what foods do you use a food thermometer? [Probe: hamburgers]
  - If yes, do you use a food thermometer every time you cook or only some of the time? If not every time, why?
  - If no, why don’t you use a food thermometer? Do you own a food thermometer?

- [Present dial and digital thermometers.] Did anyone receive a food thermometer from the USDA Meat and Poultry Hotline or USDA Food Safety Mobile?
  - If yes, did you receive a digital or dial food thermometer?
  - If yes, did you use it?
    - If yes, did you like or dislike it? Explain.
    - If yes, was it easy or difficult to use? Explain.
    - If yes, will you continue to use it? Explain.
    - If no, why haven’t you used it? Explain.

- [For those who did not receive thermometer.] Which thermometer would you prefer to use? What do you like or dislike? Which thermometer would you buy?

- [Pass out Thermy thermometers.] What do you think about this thermometer? Would you use this thermometer? What do you like or dislike? Would you buy this thermometer?

- [Pass out T-sticks.] What do you think about these thermometers? Would you use them? What do you like or dislike? Would you buy them?
Will you teach your children how to use a food thermometer? Why or why not?

III. Is It Done Yet? Campaign Materials (60 minutes)

The United States Department of Agriculture or USDA recently developed an educational campaign to increase consumers’ use of food thermometers in daily cooking for all cuts of meat, including smaller cuts such as hamburgers and chicken breasts. The campaign targets parents of young children since young children are more susceptible to foodborne illness or food poisoning.

USDA wants to inform parents of young children that using a food thermometer is the only safe and effective way to prepare meat and poultry; that is, that meat has reached a high enough temperature to destroy harmful foodborne bacteria. Looking at the color of the meat or relying on time and oven temperature or your previous cooking experience are not safe methods of testing for doneness.

In early August, USDA disseminated educational materials in Ann Arbor, Grand Rapids, and Lansing. Now, I would like to discuss with you the campaign’s materials. Please keep in mind the purpose of the campaign as we discuss the materials.

**Brochure (20 minutes)**

- [Show and pass out brochure.] Have you recently seen this brochure? If yes, where? If yes, did you read it?

- [Participants read brochure.] What is your initial reaction after reading this brochure?

- Did anything grab your attention in this brochure?

- What, if anything, do you particularly like about this brochure?

- What, if anything, do you particularly dislike about this brochure?

- What did you find most informative or useful in this brochure?

- Did you learn anything new in this brochure?

- Do you think there is anything missing in this brochure? Do you think there is anything that should have been covered but wasn’t?

- Is there anything confusing or hard to understand in this brochure?

- Do you have any suggestions on how we can improve the brochure?
For those who recently read this brochure, did this brochure encourage you to seek out more information about a food thermometer, purchase a food thermometer, or use a food thermometer? [Probe: www.IsItDoneYet.gov] Why or why not?

[For those who did not previously see brochure] How likely would you seek out more information about a food thermometer, purchase a food thermometer, or use a food thermometer after reading this brochure? Would you say not very likely, somewhat likely, or very likely? Why or why not?

Where would you most likely notice this brochure and pay attention to it? [Probe: grocery store, cooking store, doctors office]

Newspaper/Magazine Advertisement (15 minutes)

[Show and pass out advertisement. Show local newspaper and magazine advertisements.] Have you seen this advertisement? If yes, where?

[Participants read advertisement.] What, if anything, initially grabs your attention in this advertisement?

What, if anything, do you particularly like about this advertisement?

What, if anything, do you particularly dislike about this advertisement?

What did you find most informative or useful in this advertisement?

Did you learn anything new in this advertisement?

Do you think there is anything missing in this advertisement? Do you think there is anything that should have been covered but wasn’t?

Do you have any suggestions on how we can improve this advertisement?

For those who recently saw this advertisement, did this advertisement encourage you to visit the USDA Food Safety Mobile, seek out more information about a food thermometer, purchase a food thermometer, or use a food thermometer? [Probe: www.IsItDoneYet.gov] Why or why not?

[For those who did not previously see advertisement] How likely would you seek out more information about a food thermometer, purchase a food thermometer, or use a food thermometer after seeing this advertisement? Would you say not very likely, somewhat likely, or very likely? Why or why not?

Did you see or read any other newspaper advertisements or articles about food thermometer usage in the past 2 months? [Show local articles and ads.]
**Public Service Announcement (20 minutes)**

- [Play 60-second PSA.] Have you recently heard this public service announcement or PSA? If yes, when or where?
- What is your initial reaction after hearing this PSA?
- Did anything grab your attention in this PSA?
- What, if anything, do you particularly like about this PSA?
- What, if anything, do you particularly dislike about this PSA?
- What did you find most informative or useful in this PSA?
- Did you learn anything new in this PSA?
- Is there anything confusing or hard to understand in this PSA?
- Do you have any suggestions on how we can improve this PSA?
- For those who recently heard this PSA, did this PSA encourage you to seek out more information about a food thermometer, purchase a food thermometer, or use a food thermometer? [Probe: www.IsItDoneYet.gov] Why or why not?
- [For those who did not previously hear this public service announcement] How likely would you seek out more information about a food thermometer, purchase a food thermometer, or use a food thermometer after hearing this PSA? Would you say not very likely, somewhat likely, or very likely? Why or why not?
- Where and when would you expect to hear this PSA played?
- Did you hear or see any other radio or television announcements about food thermometer usage in the past 2 months? [Probe: radio interviews with food safety experts, radio promotions, television news stories.]
  - If yes, did this announcement encourage you to attend the USDA Food Safety Mobile, call the Meat and Poultry Hotline, or seek out more information about a food thermometer?

**Magnet and Web site (5 minutes)**

- [Show magnet and pass out handouts.] Have you seen this magnet before? If yes, where? If yes, did you receive one?
- What, if anything, do you particularly like about this magnet?
- What, if anything, do you particularly dislike about this magnet?

- [Pass out handout.] Have you seen or visited this Web site before?

- Did you know there was a Web site called IsItDoneYet.gov?

- What is your initial impression of this Web site? Explain.

**IV. Impressions of the USDA Food Safety Mobile (if time allows)**

- Did anyone visit the USDA Food Safety Mobile? If yes, where?

- Did you learn anything new about food safety during your visit to the Mobile? Explain. [Probe: clean, separate, cook, chill, thermometer use]

- Have you made any specific changes in the way you handle and prepare food since your visit to the Mobile? If yes, what changes have you made? [Probe: clean, separate, cook, chill, thermometer use]

**V. Wrap Up**

That’s all our questions.

- Any other comments or questions?

- Thank you for participating.
  - Pass out information packets and free gifts
  - Cash incentive
Appendix D: Campaign Materials
Fiesta Burgers

Ingredients
Makes 4 servings.

- 1 ½ pounds ground beef
- ¼ cup onion, chopped
- 2 tablespoons red bell pepper, finely chopped
- 1 tablespoon picante sauce or salsa
- 2 teaspoons prepared Dijon-style mustard
- 1 tablespoon prepared horseradish (optional)
- salt and pepper to taste
- 4 sesame seed hamburger buns
- leaf lettuce and sliced tomatoes
- condiments and garnishes of choice

Preparation Directions

1. Wash hands with soap and warm water for 20 seconds before handling the meat.
2. In a bowl, mix ground beef with onion, red pepper, picante sauce or salsa, mustard, horseradish if desired, salt and pepper.
3. Form into four burgers, about ¾ inch thick.
4. Wash hands with soap and warm water for 20 seconds after handling the meat.
5. Using utensils, place burgers on grill that has reached medium high heat.
6. Check each burger with a food thermometer after approximately 10–15 minutes. A hamburger is done when it reaches 160 °F. Clean the thermometer between uses with hot soapy water.
7. Place burgers on buns and top with condiments and garnishes of choice.
8. Remember to clean the food thermometer with hot soapy water after checking the final temperature.

“Is it done yet?”

You can’t tell by looking. Use a food thermometer to be sure.

To keep your food safe at home, remember to:

CLEAN Wash hands and surfaces often.
SEPARATE Don’t cross-contaminate.
COOK Cook to proper temperatures.
CHILL Refrigerate promptly.

USDA Meat and Poultry Hotline
1-888-MPHotline (1-888-674-6854)
TTY: 1-800-256-7072
www.IsItDoneYet.gov

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August 2004
**Thermometers Aren’t Just for Turkey Anymore**

These days, food thermometers aren’t just for your holiday roasts – they’re for all cuts and sizes of meat and poultry, including hamburgers, chicken breasts, and pork chops. Using a food thermometer when cooking meat, poultry, and even egg dishes is the only reliable way to make sure you are preparing a safe and delicious meal for your family.

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.

**Why Use a Food Thermometer?**

Everyone is at risk for foodborne illness. Young children under 10 are especially vulnerable. One effective way to prevent illness is to use a food thermometer to check the internal temperature of meat, poultry, and egg dishes. Using a food thermometer not only keeps your family safe from harmful food bacteria, but it also helps you to avoid overcooking, giving you a safe and flavorful meal that is done on time.

**Seeing Isn’t Believing**

Many people assume that if a hamburger is brown in the middle, it is done. However, looking at the color and texture of food is not enough – you have to use a food thermometer to be sure! According to USDA research, **one out of every four** hamburgers turns brown before it reaches a safe internal temperature. The only safe way to know if meat, poultry, and egg dishes are “done” is to use a food thermometer. When a hamburger is cooked to 160°F, it is both safe and delicious!

**How To Use a Food Thermometer**

The food thermometer should be placed in the thickest part of the food and should not be touching bone, fat, or gristle. Begin checking the temperature toward the end of cooking, but before the food is expected to be “done.” Compare your thermometer reading to the USDA Recommended Temperatures to determine if your food is done. Because there are so many types of food thermometers, it is important to follow the instructions for your food thermometer. Make sure to clean your food thermometer with hot soapy water before and after each use!

**USDA Recommended Internal Temperatures**

- **Steaks & Roasts:** 145 °F
- **Pork:** 160 °F
- **Ground Beef:** 160 °F
- **Chicken Breasts:** 170 °F
- **Whole Chicken:** 180 °F
PRINT ADVERTISEMENT
“Is it done yet?”

You can’t tell by looking.
Use a food thermometer to be sure.

1 out of every 4 hamburgers looks done before it has reached a safe internal temperature of 160 °F.

USDA Meat & Poultry Hotline
1-888-MPHotline (1-888-674-6854)

www.IsItDoneYet.gov


**RADIO PSA SCRIPT FOR USDA’S “IS IT DONE YET?” CAMPAIGN**

**30-Second Version**

OUTDOOR SOUNDS—BIRDS, ETC.

SOUNDS OF A COOKOUT, MEAT SIZZLING ON THE GRILL

Dad 2:  Russ, serve up those burgers, they look done!

Dad 1:  Mike, you can’t tell if they’re safe to eat by the color of the meat.

Dad 2:  Is that a meat thermometer—it looks like my kid’s video game.

Dad 1:  It’s digital—and it beeps when the meat is perfectly cooked.

Dad 2:  Leave it to you to own the most cutting-edge barbecue technology.

Dad 1:  You better believe it, when it comes to keeping our kids safe.

Dad 2:  Good point.

Kid 1 (age 8):  Dad, is it done yet?

(the thermometer beeps)

Dad 1:  Sure is. Perfectly cooked, perfectly safe.

ANNOUNCER:  For more information visit www.isitdoneyet.gov

**SPONSORSHIP ANNOUNCEMENT SCRIPT: USDA-IS IT DONE YET?**

Food Thermometer Use (:05)

ANNOUNCER:

“...brought to you by USDA’s Food Safety and Inspection Service. Reminding you to use a food thermometer. Visit: “is it done yet dot gov” (www.isitdoneyet.gov)

**RADIO PUBLIC SERVICE ANNOUNCEMENT SCRIPT: USDA-IS IT DONE YET?**

Food Thermometer Use (:10)

ANNOUNCER:

Make sure your family’s meal ....is perfectly cooked, perfectly safe. Use a food thermometer! Visit: “is it done yet dot gov” (www.isitdoneyet.gov)

**NPR :15 SPOT**

USDA’s Food Safety and Inspection Service, reminding you to make sure your family’s meal is perfectly cooked and perfectly safe by using a food thermometer. More information available on the web at IS IT DONE YET DOT GOV
RADIO PSA SCRIPT FOR USDA’S “IS IT DONE YET?” CAMPAIGN

60-Second Version

OUTDOOR SOUNDS — BIRDS, ETC.
SOUNDS OF A COOKOUT, MEAT SIZZLING ON THE GRILL
Kid 1 (aged 8): Dad, we’re starved—is the food done yet?
Dad 1: Let me check—almost, Josh.
Dad 2: Russ, come on, serve up those burgers, look how brown they are.
Dad 1: Mike, you can’t tell if they’re safe to eat by the color of the meat.
Dad 2: Hey, is that a meat thermometer—it looks like one of the kids’ video games.
Dad 1: It’s digital—you can set it, and it beeps when the meat is perfectly cooked.
Dad 2: Leave it to you to own the most cutting-edge barbecue technology in town.
Dad 1: You better believe it, when it comes to keeping our kids safe.
Dad 2: Good point. Where can I get one of those?
Dad 1: Supermarket, department store, online. You don’t need a fancy thermometer, just one that works.
Dad 2: No way, you’re not having all the fun—I’m getting one of those ..Ah..do they come with ring tones?
Kid 1: Dad, is it done yet?
(the thermometer beeps)
Dad 1: 160 degrees. Perfectly cooked, perfectly safe.
ANNOUNCER: You can’t tell by looking—use a food thermometer to be sure. For more information visit www.isitdoneyet.gov

SPONSORSHIP ANNOUNCEMENT SCRIPT: USDA-IS IT DONE YET?
Food Thermometer Use (:05)
ANNOUNCER:
“...brought to you by USDA’s Food Safety and Inspection Service. Reminding you to use a food thermometer. Visit “is it done yet dot gov” (www.isitdoneyet.gov)

RADIO PUBLIC SERVICE ANNOUNCEMENT SCRIPT: USDA-IS IT DONE YET?
Food Thermometer Use (:10)
ANNOUNCER:
Make sure your family’s meal ....is perfectly cooked, perfectly safe. Use a food thermometer! Visit: “is it done yet dot gov” (www.isitdoneyet.gov)

NPR :15 SPOT
USDA’s Food Safety and Inspection Service, reminding you to make sure your family’s meal is perfectly cooked and perfectly safe by using a food thermometer. More information available on the web at IS IT DONE YET DOT GOV
MAGNET
Keep Your Family Safe

“Is it done yet?”

You can’t tell by looking. Use a food thermometer to be sure.

**USDA Recommended Internal Temperatures**

- **145 °F**  Beef, lamb & veal steaks & roasts, medium rare (medium–160 °F).
- **165 °F**  Ground turkey & chicken. Stuffing & casseroles. Leftovers.
- **170 °F**  Chicken & turkey breasts.
- **180 °F**  Chicken & turkey, whole bird, legs, thighs & wings.

United States Department of Agriculture
Food Safety and Inspection Service
USDA is an equal opportunity provider and employer.
August 2004

USDA Meat & Poultry Hotline
1-888-MPHotline (1-888-674-6854)

www.IsItDoneYet.gov
THERMY™ THERMOMETER
Thermy™
Food Safety Thermometer

• High accuracy
• Quick response
• Digital instant read
• Self-calibrating
• Auto Off
• °F/°C switch
• Hold button

Thermy™ is the messenger of a national consumer education campaign of the USDA/FSIS designed to promote the use of food thermometers.

www.fsis.usda.gov/thermy

United States Department of Agriculture
Food Safety and Inspection Service
USDA is an equal opportunity provider and employer. USDA does not endorse any product, service, or organization.
“IS IT DONE YET?” WEB SITE
Is it Done Yet?

"Is it done yet?" You can't tell by looking. Use a food thermometer to be sure.

Is it done yet? Campaign Kicks Off in MI
The nation's top food safety official, Dr. Elise Murano, will launch an educational campaign on August 2 to promote the use of food thermometers when cooking meat and poultry.

Is it done yet? Brochure (Text Only) | PDF (1Mb)
Learn how to use a food thermometer - it's not just for turkey anymore! Get recommended internal temperatures and a recipe for safe, delicious, Fiesta Burgers.

Keep Your Family Safe Temperature Chart (PDF Only, 425Kb)
USDA's recommended internal temperatures for meat and poultry products in handy chart form.

Thermometer Placement & Temperatures
Review USDA's recommended internal temperatures for various meat, poultry, and egg products. Images and video illustrate proper thermometer placement.

News, Videos, Photos & Images
Feature stories; information for the media; graphics to download.

Food Thermometer Research
Important research prompted USDA's food thermometer education campaign. Studies suggest effective strategies for encouraging thermometer use.

Background Information
Additional information about the "is it done yet?" initiative, including a schedule of events during the pilot in Michigan.
Appendix E: Focus Group Summaries
BOOMBURBS
This appendix section summarizes the key findings from the focus group discussions with Boomburbs in Ann Arbor, Grand Rapids, and Lansing, Michigan on September 28-30, 2004. Most Boomburbs were recruited from lists purchased from The Baldwin Group; however, the list was exhausted before recruiting was finished in Ann Arbor. Individuals were classified as Boomburbs if they completed at least a 4-year degree and have an annual household income of at least $50,000. At the time of each discussion, all participants had heard or read something about food thermometer usage in the past 2 months. All participants have children who are 10 years old or younger living in their households. Additionally, all participants have primary or shared responsibility in their households for cooking and prepare meat and poultry at home three or more times a week. Table 1 provides information on participants’ demographics.

Because of technical difficulties, the Ann Arbor discussion was not recorded. The findings reported are based on notes taken by the moderators and observers.

### Table 1. Participants’ Demographics

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<sup>a</sup>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.

### Thermometer Usage

Participants shared what they had heard or read about food thermometer usage in the past 2 months. Participants also discussed their use of food thermometers before and after their exposure to information about food thermometer usage. In Ann Arbor and Grand Rapids,
participants discussed their preferences for the digital, small dial\(^1\), Thermy\(^\text{TM}\), and T-stick thermometers presented at the discussion. Participants’ responses were based on the appearance of the food thermometers and their past experiences using these types of thermometers.

**Ann Arbor**

- Prior to their exposure to information about food thermometer usage, all eight participants owned a food thermometer. Many participants always used a food thermometer when cooking large pieces of meat or poultry (e.g., turkeys or roasts) but relied on their previous cooking experience to determine the doneness of small cuts of meat or poultry.

- Several participants saw the advertisement for the USDA Food Safety Mobile in the local newspaper. Three participants attended the Mobile at the Ann Arbor Hands-On Museum, the Briarwood Mall, or the Dixboro Fair and received a food thermometer. Other participants read about food thermometer usage in cooking magazines.

- After visiting the Mobile, participants were “more cautious” when cooking meat and poultry. At least two participants who visited the Mobile started using a food thermometer when cooking hamburgers or smaller cuts of meat (e.g., chicken breasts).

- Most participants liked the Thermy\(^\text{TM}\) thermometer but were concerned about its safety and worried that it looked too much like a toy and their children might play with it. Many participants really liked the thermometer’s magnet, so it could be stored in a convenient and easily accessible location.

**Grand Rapids**

- Prior to their exposure to information on food thermometer usage, three of the eight participants owned a food thermometer. One participant always used a food thermometer for all cuts of meats, including chicken breasts, when cooking in the oven, and occasionally when cooking on the stove. One participant usually used a food thermometer when cooking meats, except hamburgers, on an outdoor grill. Notably, a participant’s mother, who is a diabetic, brings her own food thermometer when visiting to check the internal temperature of her meat. Most participants either overcooked their meat or relied on previous cooking experience or time to determine the doneness.

- One participant heard the public service announcement (PSA) and two participants read about food thermometer usage in the local newspaper. Other participants heard or read about food thermometer usage on the national news, the Food Network, or in cooking magazines.

- After their exposure to information on food thermometer usage, most participants did not purchase a food thermometer or use a food thermometer more frequently. After watching a cooking show, one participant purchased a food thermometer to make candy. He started using it for meat and poultry recipes and now uses it often to prevent overcooking chicken breasts, prime rib, and roasts. After watching a

\(^1\)Unlike the traditional dial thermometer, we presented one with a smaller, plastic dial that cannot be left in meat during the cooking process.
program on the Discovery channel about foodborne illness, one participant considered using a food thermometer but has yet to use one.

- Some participants preferred the dial thermometer to the digital thermometer. Participants like that dial thermometers specify the safe internal temperatures of different meats prominently on the dial. Participants also like that they can leave dial thermometers in the meat while cooking in the oven. Additionally, participants like that dial thermometers do not require batteries, which can be expensive to replace. Some participants preferred the digital thermometer because it measures the internal temperature more quickly than the dial thermometer and the temperature is easier to read.

- Many participants really liked the Thermy™ thermometer. They described it as “cool,” and liked that it had a magnet for convenient storage. Several participants were concerned about the safety of the thermometer and worried it looked too much like a toy and that their children might play with it. Many 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.

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

**Lansing**

- Prior to their exposure to information about food thermometer usage, one of the six participants owned a food thermometer and always used it when cooking roasts. Other participants relied on color or their cooking experience to determine doneness.

- One participant received a food thermometer and learned how to properly use it at the Food Safety Mobile during the Great Lakes Folk Festival. One participant saw a local television news story about food thermometer and hamburgers. One participant saw a cooking demonstration at the Ag Expo hosted by the Michigan State University Cooperative Extension. Other participants read about food thermometer usage in cooking magazines.

- After their exposure to information about food thermometer usage, at least two participants started using a food thermometer or using one more often. After receiving a food thermometer at the Mobile, the participant used her new thermometer when cooking turkey breasts and pork loin. She was surprised that the meat had not been cooked to a safe internal temperature when she thought it was done. She was glad that she received the thermometer and plans to continue using it. After watching a local television news story about food thermometer usage, one participant used a food thermometer more often to set an example for her 15-year-old daughter. She taught her daughter to use a dial thermometer every time she cooks meat or poultry. The participant who attended the Ag Expo considered using a food thermometer to protect his children from foodborne illness but has yet to purchase one. Other participants did not make any changes in their thermometer usage.
Most participants would teach their children how to use a food thermometer, so they can prepare meat and poultry safely for themselves.

Brochure
Participants discussed their impressions of the brochure and offered suggestions to improve it. Participants also discussed the brochure’s impact on their awareness and knowledge of food thermometers and their use of food thermometers.

Ann Arbor
- Most participants liked the brochure, especially the “USDA Recommended Internal Temperatures” graphic.
- Most participants found the brochure very informative because it contained new information. Many participants were surprised by the CDC statistics on foodborne illness and wanted to know more, like, who is more susceptible to foodborne illness. Some participants were unaware and questioned that “one out of every four hamburgers turns brown before it reaches a safe internal temperature.” Additionally, many participants were unaware that egg dishes need to be cooked to a safe internal temperature.
- Many participants did not find the green color used in the brochure very appealing. Many participants did not think the recipe on the back cover went with the safety theme of the brochure. Some participants suggested replacing the recipe with a discussion on the Fight BAC!® messages in more detail; for example, the brochure should remind the reader not to place cooked meat on the same plate as raw meat. Participants liked the graphic of the mother and son but thought the kitchen looked retro and outdated.
- Participants offered the following suggestions to improve the brochure:
  - add an egg dish and its safe internal temperature to the “USDA Recommended Internal Temperatures” graphic since egg dishes are mentioned in the text;
  - add fish and its safe internal temperature to the “USDA Recommended Internal Temperatures” graphic;
  - explain how to properly use a food thermometer in the text; and,
  - encourage readers to save and keep the “USDA Recommended Internal Temperatures” graphic in a convenient location (e.g., kitchen cabinet or cookbook) by making it detachable or a sticker.
- After reading the brochure, many participants said they would likely use a food thermometer when cooking meat and poultry.
- Participants suggested distributing the brochure at doctors’ offices, grocery store meat departments, and baby stores to educate new parents.

Grand Rapids
- Most participants liked the brochure and found it very informative, but said they would more likely pick up and read the brochure if it included more statistics on foodborne illness and explained why it is important to use a food thermometer. One participant stated, “I would use a food thermometer if I knew my kids’ safety was being compromised.” A few participants suggested specifying the types of foodborne
bacteria and including pictures of bacteria; one participant said, "That would scare me to use a meat thermometer." A few participants suggested the brochure explain why USDA wants to educate consumers about using food thermometer.

- Many participants liked the recipe and thought it would encourage people to pick up and keep the brochure. Many participants liked the colors of the brochure and the campaign slogan, “Is It Done Yet?” Some participants also liked the Fight BAC!® messages and the “USDA Recommended Internal Temperatures” graphic. A few participants liked that a graphic showed a mother teaching her child about food safety.

- Most participants thought the brochure was informative. Many participants were unaware of the CDC statistics on foodborne illness and that egg dishes need to be cooked to a safe internal temperature.

- Many participants thought the outside grill in the front cover graphic and the kitchen shown in the graphic on the inside cover looked “pretty fancy” and were doubtful that many consumers could afford the appliances shown. At first glance, some participants thought the intent of the brochure was to sell grills and suggested replacing the grill graphic with statistics from CDC to get consumers’ attention.

- Participants offered the following additional suggestions to improve the brochure:
  - add an egg dish and its safe internal temperature to the “USDA Recommended Internal Temperatures” graphic;
  - provide additional details on how to properly use a food thermometer (e.g., discuss the need to check each piece of meat when cooking multiple pieces of meat, such as hamburgers and describe how to determine the location of the thickest part of the meat);
  - explain that internal temperatures do not vary depending on cooking method and use graphics to show different cooking methods;
  - explain whether a digital or dial thermometer is more accurate;
  - make the Fight BAC!® messages more prominent by moving the messages to the top and the recipe to the bottom;
  - prove “seeing isn't believing” by showing a comparison of two pieces of meat and ask the reader to guess which one is cooked to the safe internal temperature;
  - emphasize that a food thermometer allows for better food presentation;
  - mention the price range of food thermometers and emphasize "it’s an affordable way for everyone to protect their family;” and,
  - target all socioeconomic classes, not just the upper-class as suggested by the graphics.

- Participants suggested disseminating the brochure at schools, pediatricians’ offices, and grocery store meat departments. A few participants suggested displaying the brochures with the recipe cards available at most meat departments.

**Lansing**

- Most participants liked the brochure. They specifically liked the recipe, the “USDA Recommended Internal Temperatures” graphic, and the Fight BAC!® messages.
Some participants liked that the brochure included a Web site address and said they would visit the site for more information. A few participants tried to visit the Web site after hearing about food thermometer usage; at least one participant was unable to access the site.

Most participants found the brochure to be informative because it contained new information. Many participants were surprised by the CDC statistics on foodborne illness. One participant thought the number of illnesses was high and questioned how the statistics were determined. One participant wondered how many stomachaches are actually due to foodborne illness. A few participants would like to know their chances of getting foodborne illness from eating rare, medium, and well done hamburgers. Additionally, one participant was surprised that “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 middle?” One participant was unaware that there are different safe internal temperatures for different types and cuts of meat.

Most participants disliked the green color used in the brochure.

Participants offered the following suggestions to improve the brochure:
- include graphics of digital and dial thermometers and explain how to properly use each type;
- add information on susceptible populations and the symptoms of foodborne illness; and,
- include a graphic showing the inside of a hamburger that was cooked to 160°F.

After reading the brochure, some participants said they would likely use a food thermometer when cooking meat and poultry. One participant stated, “I don’t want to get others sick.” A few participants said they would use a food thermometer to stop overcooking their meat now that they know the safe internal temperatures.

Participants suggested disseminating the brochure at grocery store meat departments and stores that sell outdoor grills. One male participant stated, “The only way to get me to read this is if it was at my butcher’s while I was waiting for my meat.” At the end of the group discussion, many participants suggested targeting schools and daycare centers, so children would bring the message on thermometer usage home to their parents.

**Newspaper and Magazine Advertisement**

Participants discussed their impressions of the advertisement and offered suggestions to improve it.

**Ann Arbor**

- Some participants saw the ad in the local newspaper and subsequently attended the Food Safety Mobile.
- A few participants liked that the ad included the graphic of a mother teaching her child about food safety.
• Many participants did not like the colors (pink and green) of the ad and how they matched the color of the son and mother’s shirts. Several participants did not think the picture of the hamburger looked done or like a beef burger.

• Participants offered the following suggestions to improve the ad:
  – add CDC statistics on foodborne illness (from the brochure);
  – use a hamburger graphic that looks more realistic; and,
  – inform the reader that using a food thermometer “only takes a second and is a quick and convenient way to protect your family.”

**Grand Rapids**

• Most participants liked the ad, its colors, and the offer for a free food thermometer. Most participants believed the ad would more likely capture readers’ attention if the statement regarding a free food thermometer was more prominent.

• Some participants said the mother’s attire and the kitchen used in the ad was “unrealistic” and “too perfect.”

• Participants offered the following suggestions to improve the ad:
  – include text or graphics with chicken breasts because some consumers do not eat a lot of hamburgers;
  – add a picture of a hamburger that looks done but has yet reached a safe internal temperature; and
  – add scare tactics, such as CDC statistics on foodborne illness or the statement “keep your family safe, use a food thermometer” to grab the reader’s attention.

**Lansing**

• Although most participants liked the look of the kitchen in the ad, many described it as “expensive-looking” and “not typical.”

• Some participants did not like the pink and green colors of the ad or the color coordination of the mother and son’s shirts and suggested replacing the pink and green with different colors. Male participants really disliked the woman’s outfit and suggested changing it.

**Public Service Announcement**

Participants discussed their impressions of the public service announcement (PSA) and offered suggestions for improving it.

**Ann Arbor**

• Most participants liked the PSA and thought it presented a clear message about thermometer usage. A few participants, however, said that if they heard it on the radio they would likely tune it out or change the station. A few participants thought a billboard would be more effective than a PSA.

• To improve the PSA, a few participants suggested adding the voices of more children and a sizzling sound to the grill.
Grand Rapids

- Most participants liked the PSA and thought that the slogan, “Is It Done Yet,” was “catchy.” One participant said, “I would have remembered that [the PSA].” Some participants were unaware of the fact that “one out of every four hamburgers turns brown before it reaches a safe internal temperature.” A few participants thought that a man and wife cooking at the grill would be more realistic than two men.

- Most participants preferred the 30-second version of the PSA to the 60-second version. Some found the music in the 60-second PSA distracting, and a few thought it was not necessary to mention the comparison of the thermometer to a video game and the different type of thermometers available.

- Some participants thought that the focus of the PSA on grilling hamburgers was too restrictive and were concerned that consumers would mistakenly think that they should only use a food thermometer when grilling hamburgers. Participants suggested that other types of meat (e.g., chicken breasts) should be mentioned in the PSA and that the PSA should state that a food thermometer should be used for cooking all cuts of meat using any cooking method.

- Participants thought the PSA was great for the summertime when many people cook on the grill, but suggested developing a PSA that focused on indoor cooking for the remainder of the year. Participants suggested that a PSA set indoors should include a woman cooking at the stove or oven.

- To improve the PSA, several participants thought the PSA should focus more on why children are more susceptible to foodborne illness and how parents can protect their children by using a food thermometer. Participants thought the emphasis on these messages would better capture the attention of listeners. One participant stated, “If you want parents to use a food thermometer, the health of our children is the hook.” A few participants suggested that the PSA should mention specific foodborne bacteria, like E. coli, and how it can affect their children.

- Participants said they would unlikely visit the Web site for more information. Participants believed the PSA provided sufficient information for them to evaluate whether they should start using a food thermometer.

Lansing

- A few participants recalled hearing the PSA on local radio stations. One participant recalled thinking, “I’m pretty confident [about my cooking] but maybe I shouldn’t be.”

- Many participants liked the PSA and thought it was “humorous but informative.”

- Most participants thought the PSA “could be more shocking,” and suggested adding statistics on foodborne illness, stressing the need to cook hamburgers to 160° F, and focusing more on children and foodborne illness to grab the listener’s attention. One participant suggested mentioning in the PSA that “Johnny got sick yesterday at a picnic, and...” Many participants also suggested using a memorable pop song or a celebrity’s voice to improve the listener’s recollection of the PSA.

Magnet

Participants discussed their impressions of the magnet and offered suggestions to improve it.
Ann Arbor

- Most participants liked the magnet, specifically, that the USDA logo was prominently displayed and that the internal temperatures for a variety of foods, including egg dishes, were provided.

- Most participants did not care for the picture frame. Because many participants would discard the frame, they suggested including the USDA logo and Hotline number on the inner magnet with the Web site address to improve the magnet.

Grand Rapids

- Participants really liked the magnet and said they would place it on their refrigerators. Some participants liked the frame and said they would use it to display their children’s school pictures.

- To improve the magnet, participants suggested that the USDA logo 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.

Lansing

- Most participants really liked the magnet. Participants stated, “This is great!” or “This is handy!” One participant said, “This is one magnet that won’t be in the junk drawer.”

- One participant who really liked the magnet but cannot use magnets on his refrigerator suggested developing a bookmark or recipe card similar to the magnet. He also suggested designing the magnet so you have the option of using it as is or peeling off the information to stick on the inside of a kitchen cabinet door.

- Many participants did not like the green color used on the magnet (the same green used in the brochure). Also, many participants did not particularly like the picture frame.

“Is it Done Yet?” Web Site

Participants in Ann Arbor and Lansing discussed their impressions of the “Is it Done Yet?” Web site and offered suggestions to improve it.

Ann Arbor

- Although many participants liked the Web site, several participants thought the Web site could be “more fun,” “flashy,” and include “more visuals.” Several participants liked the “Did You Know” icon and suggested adding more quizzes to the site. A few participants also liked 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 different cuts of meat and the proper internal temperatures.

Grand Rapids

- A few participants said the Web site looked “helpful” and “easy to navigate.” A few participants liked the feature, “Questions about Food Safety: Ask Karen.”

- Most participants said they would unlikely visit the Web site. One participant said she might visit the site to get more information on foodborne illnesses.
NON-BOOMBURBS
This appendix section summarizes the key findings from the focus group discussions with non-Boomburbs in Ann Arbor, Grand Rapids, and Lansing, Michigan, on September 28-30, 2004. Individuals were classified as non-Boomburbs if they have not completed a 4-year or higher degree. At the time of each discussion, all participants had heard or read something about food thermometer usage in the past 2 months. All participants have children who are 10 years old or younger living in their households. Additionally, all participants have primary or shared responsibility in their households for cooking and prepare meat and poultry at home three or more times a week. Table 1 provides information on participants’ demographics.

### Table 1. Participants’ Demographics

<table>
<thead>
<tr>
<th>Question</th>
<th>Ann Arbor (n = 7)</th>
<th>Grand Rapids (n = 8)</th>
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</table>

\(^a\)During the screening call, respondents indicated they were not college graduates. On the night of the discussion, however, participants indicated they were college graduates on the rescreener and prediscussion questionnaire.

### Thermometer Usage

Participants shared what they had heard or read about food thermometer usage in the past 2 months. Participants also discussed their use of a food thermometer before and after exposure to information about food thermometer usage. In Ann Arbor and Grand Rapids,
participants discussed their preferences for the digital, small dial\(^1\), Thermy\(^\text{TM}\), and T-stick thermometers presented at the discussion. Participants' responses were based on the appearance of the food thermometers and their past experiences using these types of thermometers.

**Ann Arbor**

- Prior to exposure to information about food thermometer usage, five of the seven participants owned a food thermometer. Some participants always used a food thermometer when cooking large pieces of meat or poultry (e.g., turkeys or roasts); one participant always used a food thermometer when cooking pork chops. Other participants relied on their previous cooking experience to determine the doneness of meat or poultry.

- Most participants saw the advertisement for the USDA Food Safety Mobile in the local newspaper. Although some participants wanted to attend the Mobile to receive a free food thermometer, only two participants actually visited the Mobile. One participant visited the Mobile at the local Kroger’s grocery store, and another visited the Mobile at the Ann Arbor Hands-On Museum. One participant read about food thermometer usage in a cooking magazine.

- After exposure to information about food thermometer usage, a few participants are “more conscience” and “cautious” when cooking meat and poultry. A few participants considered purchasing a food thermometer but have yet to purchase one. A few participants would like to use a food thermometer but are unaware of the safe internal temperatures for different types of meat.

- Of the two participants who received a dial food thermometer at the Mobile, one started using the food thermometer often when cooking chicken breasts; she likes the new thermometer and is happy to replace her old, larger one with it. The other participant still uses the food thermometer on just large pieces of meat; however, she found a chart of internal meat temperatures in a magazine and taped the chart to a kitchen cabinet so she can conveniently refer to it when using a food thermometer.

- Most participants preferred the digital thermometer to the dial thermometer. A few participants, however, agreed that their parents would probably prefer the dial. One participant only preferred the digital because it measures temperature in Celsius degrees. A few participants liked the cover on the digital thermometer because it is “child-proof.”

- Most participants liked the T-stick thermometers. Some participants described them as “convenient,” and a few said they would be good to take along on picnics. Some participants said they would use the T-stick thermometers. One participant is “not a fan of anything disposable” and would prefer to use a food thermometer to check the doneness of hamburgers. One participant was concerned about the type of chemicals used in the T-sticks and whether they could contaminate her food.

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\(^1\)Unlike the traditional dial thermometer, we presented one with a smaller, plastic dial that cannot be left in meat during the cooking process.
Most participants liked the Thermy™ thermometer, especially, its magnet. Participants liked the idea of storing the thermometer in a visible and convenient location, like the stove or refrigerator, instead of a crowded kitchen drawer.

Most participants would teach their children how to use a digital thermometer at the appropriate age. Participants thought it would be easier for their children to learn to use a digital thermometer than a dial thermometer because of the digital reading.

**Grand Rapids**

- Prior to exposure to information about food thermometer usage, five of the eight participants owned a food thermometer, and some participants always used it when cooking turkeys or other large pieces of meat.

- One participant heard the public service announcement (PSA) about food thermometer usage on the radio, and one participant saw the advertisement in the local newspaper. 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. One participant heard about using a food thermometer when cooking hamburgers on the local television news. Other participants heard or read about food thermometer usage on the national news, the Food Network, or in cooking magazines.

- After exposure to information about food thermometer usage, 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].” One participant considered purchasing a food thermometer because she worries about foodborne bacteria in ground beef and other processed meats but has yet purchase one. Another participant considered using a food thermometer on wild game but does not know where to find the safe internal temperatures for such meat.

- Most participants said they would prefer to use a digital thermometer when cooking on the grill and a dial thermometer when cooking in the oven. Participants liked the digital thermometer because it is easy to read, looks "cool" and "modern," and is small enough "to take to picnics, tailgates, or the beach.” Participants, however, did not think the digital thermometer was long enough to accurately measure the internal temperature of larger cuts of meat. A few participants preferred the dial thermometer because “it is more reliable” and does not require batteries.

- Several participants really liked the Thermy™ thermometer because it is digital and displays the safe internal temperatures on its covering. Most participants really liked that the thermometer has a magnet so they “can stick it on the refrigerator and not search for it in a drawer.” A few participants thought the Thermy™ thermometer was "cool" but questioned "how well it would hold up;” they thought the plastic thermometer looked "cheap" and "not durable.” Some participants said they would purchase a Thermy™ thermometer and teach their children how to use it when cooking meat and poultry.

- Most participants did not like the T-stick thermometers and said they would not use them. Some would rather use a food thermometer to check the doneness of hamburgers. One participant said she would not feel confident about the T-sticks’ accuracy, and one participant said, "they would get lost in a drawer.” One participant mentioned they would be good to take to a restaurant.
**Lansing**

- Prior to exposure to information about food thermometer usage, five of the eight participants owned a food thermometer. Most of the participants only used their food thermometers when cooking turkeys, and a few used them when cooking other large pieces of meat. One participant often used a food thermometer when cooking pork, and one participant usually used a food thermometer when cooking all types of meat and poultry. Other participants relied on their previous cooking experience, taste, or color to determine the doneness of meat or poultry.

- One participant received a food thermometer and learned how to properly use it at the Food Safety Mobile during its visit to the Great Lakes Folk Festival. A few participants read the news article about food thermometer usage in the local newspaper. A few participants heard about food thermometer usage on local and national television news shows. One participant heard about food thermometer usage through a conversation with a Michigan State University Cooperative Extension staff member. One participant who read the local newspaper article also read information on food thermometer usage at her son’s pediatrician.

- After exposure to information about food thermometer usage, a few participants considered using a food thermometer, primarily to protect their children from foodborne illness, but most did not start using one. The participant who received a dial food thermometer from the Mobile 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]."

- Most participants would teach their children how to use a food thermometer at the appropriate age.

**Brochure**

Participants discussed their impressions of the brochure and offered suggestions to improve it. Participants also discussed the brochure’s impact on their awareness and knowledge of food thermometers and their use of food thermometers.

**Ann Arbor**

- Most participants liked the brochure. Participants described it as “nice,” “colorful,” and “concise.” Some participants liked the recipe on the back cover, and some liked the fact that the graphic showed a mother teaching her child about food safety. Most participants liked the colors used in the brochure.

- Most participants found the brochure informative since it contained new information. Many participants were surprised by the CDC statistics on foodborne illness. Some participants were unaware that “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. A few participants were surprised that 20 seconds is the safe amount of time to wash hands with soap and water. Additionally, several participants were unaware that egg dishes need to be cooked to a safe internal temperature.

- Participants offered the following suggestions to improve the brochure:
  - add an egg dish and its safe internal temperature to the “USDA Recommended Internal Temperatures” graphic since egg dishes are mentioned in the text;
- add fish and its safe internal temperature to the “USDA Recommended Internal Temperatures” graphic;
- 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 its panel, making the recipe smaller, or giving the graphic its own panel;
- use persons of all races and classes in the graphics, “not just upper-class;”
- make the Meat & Poultry Hotline number and Web site address more prominent;
- 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;
- use a dial thermometer in the “USDA Recommended Internal Temperatures” graphic so people know they do not have to use a digital thermometer; and,
- explain how to properly use a food thermometer in the text.

- After reading the brochure, many participants said they would likely use a food thermometer when cooking meat and poultry. Most participants said they would be more likely to use a food thermometer if they received a free one.
- Participants suggested disseminating the brochure at schools, pediatricians’ offices, and grocery store meat departments. One participant suggested inserting the brochure in the Sunday newspaper.

Grand Rapids

- Most participants liked the brochure, especially the ”USDA Recommended Internal Temperatures” graphic, because it was simple but informative. Participants said the pictures of prepared food (i.e., pork chops and steak) looked good; one participant said the pictures demonstrated that “you don’t have to scorch it [the meat] for it to be done.” Although one participant said the recipe was not necessary, most participants liked it and said it would encourage consumers to “pick it up and read it.” Most participants liked the colors used in the brochure.

- Most participants thought the brochure was informative. Many participants were startled by the CDC statistics on foodborne illness; a few participants wondered how many stomachaches are actually due to foodborne illness. Additionally, several participants were unaware that egg dishes need to reach a safe internal temperature.

- Participants offered the following suggestions to improve the brochure:
  - add an egg dish and its safe internal temperature to the “USDA Recommended Internal Temperatures” graphic since egg dishes are mentioned in the text;
  - provide a Spanish version of the brochure; and,
  - explain how to properly use a food thermometer in the text.

- After reading the brochure, many participants said they would likely purchase or use a food thermometer when cooking meat and poultry. One 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.

- Participants suggested disseminating the brochure at schools and grocery store meat departments.

**Lansing**

- Most participants liked the brochure because it “got to the point” and focused on food safety. Many participants described the brochure as “useful,” “informative,” “thorough,” and “concise.” Several participants liked the slogan, “Is It Done Yet?,” and the recipe on the back cover. Many participants liked the grill on the front cover and the “USDA Recommended Internal Temperatures” graphic. Most participants liked the colors used in the brochure.

- Participants said the brochure contained new information. A few participants were unaware that there are different safe internal temperatures for different types of meat. A few participants were unaware that egg dishes need to be cooked to a specific safe internal temperature. Several participants were unaware that the internal color of meat is not an indicator of doneness. One participant did not realize that “there were so many different types of thermometers to choose from.” After reading the Fight BAC!® messages, one participant who leaves leftovers to cool at room temperature learned that leftovers are to be refrigerated promptly. Many participants were surprised by the CDC statistics on foodborne illness; a few participants would like more, specific information on who is more susceptible to foodborne illness and how illnesses are determined and documented.

- Participants offered the following suggestions to improve the brochure:
  - make the Fight BAC!® messages more prominent because they are lost at the bottom of the brochure; and,
  - add fish and its safe internal temperature to the “USDA Recommended Internal Temperatures” graphic.

- After reading the brochure, a few participants contemplated using a food thermometer. 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.”

- Participants suggested disseminating the brochure at schools and grocery store meat departments. One participant suggested mailing the brochure to households.

**Newspaper and Magazine Advertisement**

Participants discussed their impressions of the advertisement and offered suggestions to improve it. In Grand Rapids, participants also discussed the ad’s impact on their awareness and knowledge of food thermometers and their use of food thermometers.

**Ann Arbor**

- Most participants saw the ad in the local newspaper. Two participants attended the Food Safety Mobile after seeing the ad. Several participants thought the colored advertisement was more attention-getting than the black and white one.
Many participants liked the ad. Several participants liked how the color of the ad matched the color of the son and mother’s shirts. Some participants liked the pink and green colors, while some did not. A few participants liked that the brochure used the graphic of the mother teaching her child about food safety.

A few participants said the newspaper ad included new information about food thermometer usage, like using a food thermometer when cooking hamburger. Also, a few participants said the ad encouraged them to "pay closer attention" when cooking hamburger because "looking isn’t enough" to determine doneness.

Some participants did not like that the ad looked like it was trying to sell something. Participants suggested the ad should look more like a PSA by emphasizing "an important message from USDA" or using CDC statistics on foodborne illness.

Participants offered the following suggestions to improve the ad:
- do not limit ad to hamburgers;
- add the safe internal temperatures of different cuts of meats;
- make the picture of the hamburger look more done or like a beef hamburger;
- use hamburgers during the summer time and use other types of meat during other seasons (i.e., turkeys at Thanksgiving);
- use a picture of an outdoor grill because more people cook hamburgers outside; and,
- set the oven clock in the picture for dinner time.

**Grand Rapids**

One participant saw the ad in the local newspaper. She did not read the ad but speculated that she would have if the food thermometer had gotten her attention.

Several participants thought the ad was "visually appealing" and liked how the color of the ad matched the color of the son and mother’s shirts. Several participants liked the pink and green colors while a few did not.

Several participants liked that one of the graphics showed a mother teaching her child about food safety. Several participants 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." Many participants thought the ad illustrated the importance of using a food thermometer but wanted to know more about why to use a food thermometer when cooking hamburgers.

A few participants were startled that “one out of every four hamburgers turns brown before it reaches a safe internal temperature.” One participant recalled hearing this information on the local news and being surprised even though she does not cook hamburgers.

Male participants would like to see a man teaching his children about food thermometer usage; they thought it would grab the reader’s attention. Most of the female participants, however, thought using a woman in the graphic was "more realistic."

Participants offered the following suggestions to improve the ad:
- use more statistics to further explain why there is a need to use a food thermometer when cooking hamburgers;
- add the safe internal temperatures of different cuts of meats;
- make the picture of the hamburger look more “realistic;”
- use a picture of an outdoor grill since more people cook hamburgers outside; and,
- use a billboard to display ad.

After reading the ad, some participants said they would likely use a food thermometer or get more information by calling the Meat & Poultry Hotline or visiting the Web site (www.IsItDoneYet.gov). One participant wondered, “What is going on with the meat if they [the government] got to teach the public?”

Lansing

- Many participants said they would not stop and read the ad if they saw it in a magazine. One participant said she would more likely read the ad if it was a poster on the doctor’s wall.
- Most participants did not particularly like the ad or think it provided any new information. Some participants did not like the pink and green colors of the ad. Additionally, a few participants said they would unlikely call the Meat & Poultry Hotline to receive a free thermometer.
- Participants offered the following suggestions to improve the ad:
  - use CDC statistics on foodborne illness;
  - stress the dangers children face if they contract foodborne illness;
  - emphasize the statement, “call for a free food thermometer,” to get readers’ attention;
  - use bolder colors instead of pink and green;
  - make the picture of the hamburger look more done or like a beef hamburger instead of a soy burger;
  - endorse or approve a particular food thermometer or brand; and,
  - offer a free food thermometer online to draw visitors to USDA’s Web site.

Public Service Announcement

Participants discussed their impressions of the PSA and offered suggestions to improve it. Participants also discussed the PSA’s impact on their awareness and knowledge of food thermometers and their use of food thermometers.

Ann Arbor

- One participant heard the PSA after visiting the Mobile at Kroger’s.
- A few participants liked that the Web site (www.IsItDoneYet.gov) was repeated in the 60-second PSA; a few participants said they may visit the Web site for more information.
Several participants preferred the 60-second PSA over the 30-second because it was "more informative" and provided information about color not being an indicator of doneness.

A few participants do not listen to radio advertisements and would probably change the radio channel if they heard the PSA. One participant suggested playing the PSA on television because more people watch television than listen to the radio or read the newspaper.

**Grand Rapids**
- One participant heard the PSA, and although he was surprised to hear it on a local radio station, he "related to it" and thought that not using a thermometer was "a bad habit" that he needs to break.
- Several participants thought the PSA was "funny," and a few liked that it exemplified that men are concerned about protecting their children from foodborne illness.
- Additionally, several participants preferred the 60-second PSA over the 30-second because it was "more realistic" and "less scripted." After listening to the 30-second PSA, a few participants thought they caught the PSA in the middle of it.
- A few participants thought the PSA was "unrealistic." If they heard the PSA on the radio, most participants said, "It would go in one ear and out the other," or they would change the channel.
- To grab their attention, most participants suggested the PSA needs to 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." Participants suggested the PSA should be "more direct and to the point" and use statistics.

**Lansing**
- One participant recalled hearing the PSA on a local radio station; he remembered the statement of the child, "Dad, is it done yet?"
- A few participants said the "beep" of the thermometer grabbed their attention; 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.
- After listening to the PSA, several participants said they would go to the Web site (www.IsItDoneYet.gov) to get more information about food thermometer usage.
- A few participants thought the PSA would be more informative if it included the safe internal temperatures of other meats.

**Magnet**
Participants discussed their impressions of the magnet and offered suggestions to improve it. In Lansing, participants also discussed the magnet's impact on their awareness and knowledge of food thermometers and their use of food thermometers.
Ann Arbor
- Most participants liked the magnet, specifically, that the USDA logo was prominently displayed; that the specific temperatures for a variety of food, including egg dishes, were listed; and the color gradation distinguished the range of temperatures.
- Most participants did not care for the picture frame. Because many participants would discard the frame of the magnet, they suggested adding the Meat & Poultry Hotline to the inner magnet with the Web site address.

Grand Rapids
- Most participants really liked the magnet and described it as "simple," "straightforward," and "convenient." Participants liked that they could conveniently refer to it when cooking meat and poultry.
- Most participants said the magnet was very informative and believe it should be used to widely distribute the word about food thermometer. Participants said consumers would likely use the magnet but discard the brochure.
- Most participants were "not impressed" by the frame of the magnet.
- Some participants suggested including the magnet inside food thermometer packaging. Others suggested distributing it at schools to educate children about food thermometer usage, so children can then educate their parents.

Lansing
- Most participants really liked the magnet and that they could conveniently refer to it when cooking meat and poultry.
- One participant was unaware there are different internal temperatures for different cuts of meat.
- Participants offered the following suggestions to improve the magnet:
  - make the slogan, "Is It Done Yet?," more prominent;
  - use the “USDA Recommended Internal Temperatures” graphic as a separate magnet to adhere it to stovetops;
  - add fish and its safe internal temperature to the chart;
  - use a more prominent color rather than green; and,
  - demonstrate how to properly use a food thermometer.
- After discussing the magnet, several participants said they were "hooked" and would use a food thermometer when cooking meat and poultry. A few participants were curious to test their cooking experience against a food thermometer.
- Two participants who did not own a food thermometer previously seemed excited to receive the free thermometers for their participation in the group discussion.