

March 22, 2002

# Consumer Research on Food Safety Labeling Features for the Development of Responsive Labeling Policy

Volume 1  
Final Report

Contract No. 53-3A94-98-03,  
Delivery Order 19

Prepared for

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# Executive Summary

The U.S. Department of Agriculture's Food Safety and Inspection Service (USDA, FSIS) needs data on consumers' use and understanding of different labeling features and whether consumers desire that certain labeling features be mandatory for some meat, poultry, and egg products. FSIS contracted with RTI to conduct focus group discussions with household grocery shoppers and food preparers. FSIS can use the findings from the focus groups to guide labeling policy development.

RTI conducted six focus groups—two groups in each of three locations (Raleigh, North Carolina; Philadelphia, Pennsylvania; and St. Louis, Missouri). In each location, we conducted one focus group with individuals who have a high school education or less and one focus group with individuals who have a college education. We conducted two focus groups with individuals in each of the following age groups: 18 to 30 years old, 35 to 55 years old, and 60 years old or older.

The purpose of the focus groups was to collect information on consumers'

- Z use and understanding of the Nutrition Facts panel, handling statements, and the Safe Handling Instructions (SHI) label;
- Z use of preparation (cooking and heating) instructions and their attitudes toward uniform guidelines;
- Z preferences for labeling features (i.e., cooking statements and logos) on not-ready-to-eat (NRTE) products and attitudes toward mandatory preparation instructions;

- Z use and understanding of product dates and their attitudes toward mandatory product dating;
- Z preferences for labeling of irradiated meat and poultry products; and
- Z use of ingredients statements and preferences for labeling of food products with possible allergens.

Prior to the focus group discussions, participants completed a 13-item questionnaire that collected information on their use of product dates and preparation instructions, their awareness of irradiated meat and poultry products, and demographics (e.g., education, age, race). The moderator then led participants in a discussion to unveil participants' usage and understanding of different labeling features—the Nutrition Facts panel, handling statements, the SHI label, preparation instructions, product dating, and ingredient statements. In addition, participants discussed their preferences for labeling of NRTE products, irradiated meat and poultry products, and products with possible allergens. Finally, participants discussed whether they thought it was necessary for the FSIS to require preparation instructions for all NRTE meat, poultry, and egg products and product dating for all meat, poultry, and egg products.

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## E.1 KEY FINDINGS

The key findings from the focus group discussions are summarized below.

Participants find the Nutrition Facts panel, handling statements, and the SHI label to be useful and necessary labeling features.

### *Nutrition Facts Panel*

- Z Most participants read the Nutrition Facts panel when shopping for meat, poultry, and egg products. They understand this information and find it useful in making purchase decisions.

### *Handling Statements*

- Z Nearly all participants have seen handling statements and generally follow the instructions provided. Although most participants describe handling statements as “*common sense*,” they think they are necessary and critical pieces of information.

### *Safe Handling Instructions*

- Z Most participants have seen the SHI label and associate it with raw meat and poultry. Although they consider these

instructions to be common sense, they think it serves as a good reminder to handle raw meat and poultry safely.

- Z Some participants think the SHI label is helpful in determining whether a product requires cooking. Others do not rely on the SHI label for determining whether a product requires cooking; instead, they rely on their cooking experience.

Some participants like the idea of uniform guidelines for preparation instructions, while others think such guidelines are unnecessary.

#### *Preparation Instructions*

- Z About half of the participants look for preparation instructions when shopping for meat, poultry, and egg products. Most participants refer to preparation instructions to determine the cooking method (e.g., bake or microwave) and cooking time.
- Z Many participants refer to preparation instructions when preparing meat, poultry, and egg products, especially when preparing a product for the first time.
- Z Participants find preparation instructions most useful for frozen and refrigerated entrees/dinners, dehydrated products, and egg products.
- Z Some participants like the idea of uniform guidelines for preparation instructions. Uniform guidelines would specify that certain information (e.g., cooking time, temperature, and method) be provided in a specific format. Other participants do not think such guidelines are necessary; they think it should be up to individual companies to decide what information to provide and in what format.

The focus group findings suggest that consumers desire additional labeling features for NRTE products. Most participants like the use of cooking statements (e.g., “Cook Thoroughly”) in conjunction with cooking logos or symbols.

#### *Labeling of NRTE Products*

- Z Most participants like the use of cooking statements (e.g., “Cook Thoroughly”) in conjunction with cooking logos or symbols on NRTE product labeling. They believe such labeling would be useful in identifying products that require cooking for safety. These findings are consistent with the findings from the previous focus group study we conducted for FSIS on labeling of NRTE products (Cates, Carter-Young, and Gledhill, 2001).
- Z Many participants support regulations requiring preparation instructions on the labeling for all NRTE meat, poultry, and egg products so consumers safely prepare the product. Participants who do not support mandatory preparation instructions believe that it is manufacturers’ responsibility, not the government’s, to provide preparation instructions.

The focus group findings suggest there is some confusion among consumers regarding product dating. Participants suggest that a universal dating system be adopted in which products display the same date, preferably a use-by date.

### *Food Product Dating*

- Z Most participants check product dates before purchasing meat, poultry, or egg products to ensure product freshness and safety. Many participants check the date again before cooking or preparing the product.
- Z Participants think product dates are most useful for refrigerated entrees/dinners, processed products, raw meat and poultry, and egg products.
- Z Although many participants rely on product dates, most find the use of different dates confusing (because some products have a use-by date and others have a sell by-date). Participants would like to see a universal dating system adopted in which products display the same date, preferably a use-by date.
- Z Some participants do not understand how product dates are determined and are unsure whether product dates are verified for accuracy.
- Z Most participants support mandatory product dating for all meat, poultry, and egg products to ensure product safety. Several participants are opposed to mandatory product dating; they think it should be up to manufacturers to provide this information.

Participants think it is misleading to label irradiated meat and poultry products as “pasteurized.”

### *Labeling of Irradiated Meat and Poultry Products*

- Z Many participants are unaware of irradiated meat and poultry products and are unsure of the safety of irradiated products given their limited knowledge.
- Z Participants like the following statements for irradiated meat and poultry products:
  - X “Irradiated to Decrease Harmful Bacteria”
  - X “Irradiated for Your Safety”
  - X “Treated by Irradiation”
- Z Participants consider irradiation and pasteurization to be two different processes; hence, they consider it misleading to label irradiated meat and poultry products as “pasteurized.”

Some participants support special allergen labeling, while others believe it is consumers' responsibility to select products they can safely consume.

### *Labeling of Products with Possible Allergens*

- Z About half of the participants read the ingredients statement on product labeling. Some participants always read this information, and many only read it when trying a product for the first time.
- Z Only some participants think all of the ingredients are listed in a product's ingredients statement. Some participants find the ingredients statement confusing because they are unfamiliar with the names of many ingredients.

- Z Most participants would like to see the source of the ingredient listed next to the ingredient itself in the ingredients statement (e.g., whey [milk]) and semolina [wheat]). They think this information would be useful to consumers with food allergies.
- Z About half of the participants support mandatory allergen statements on product packaging (e.g., “May Contain Allergens”). Some participants do *not* support mandatory allergen statements; they think it is consumers’ responsibility to read the ingredients statement and check for possible allergens. Some doubt the usefulness of such generic statements.
- Z Participants are apathetic about a toll-free telephone number or web site consumers could access for allergen information.

---

## E.2 RECOMMENDATIONS

Although consumer focus group findings should not be generalized to the general population of consumers in any statistical sense, the findings can be used to help guide policy decisions. Our suggested recommendations based on the focus group findings are summarized below.

- Z Focus group participants from the current study and the previous study we conducted for FSIS agree that cooking statements/logos would be a useful labeling feature for NRTE products. Consistent with our recommendations from the previous study, we again recommend that FSIS consider the costs and merits of requiring cooking statements/logos on NRTE products to convey that cooking for safety is required.
- Z Although some participants support mandatory preparation instructions for all NRTE meat, poultry, and egg products, others do not. Hence, there is no consensus among participants regarding FSIS’s role in this matter.
- Z The focus group findings suggest that there is some confusion among consumers regarding product dating. Participants suggest that product labeling display one date that provides guidance as to when consumers should use the product. We recommend that FSIS consider the costs and merits of requiring product dating for all meat, poultry, and egg products, preferably a use-by date.
- Z We also recommend that FSIS consider implementing a consumer education campaign through the general media on product dating. We suggest that FSIS educate consumers on how product dates are determined and how they can use product dates in making storage decisions at home.

- Z Participants consider irradiation and pasteurization to be two different processes; hence, they consider it misleading to label irradiated meat and poultry products as “pasteurized.” This finding is consistent with FSIS’ current belief that the labeling of irradiated meat and poultry products as “pasteurized” has the potential for creating consumer confusion.
- Z Some participants support special allergen labeling, while others believe it is consumers’ responsibility to select products they can safely consume. Hence, there is no consensus among participants regarding FSIS’s role in allergen labeling. Participants prefer source labeling to the use of allergen statements.

# 1

## Introduction

The U.S. Department of Agriculture's Food Safety and Inspection Service (USDA, FSIS) needs data on consumers' use and understanding of different labeling features and whether consumers desire that certain labeling features be mandatory for some meat, poultry, and egg products. FSIS contracted with RTI to conduct focus group discussions with household grocery shoppers and food preparers. FSIS can use the findings from the focus groups to guide labeling policy development.

RTI conducted six focus groups—two groups in each of three locations (Raleigh, North Carolina; Philadelphia, Pennsylvania; and St. Louis, Missouri). The purpose of the focus groups was to collect information on consumers'

- Z use and understanding of the Nutrition Facts panel, handling statements, and the Safe Handling Instructions (SHI) label;
- Z use of preparation (cooking and heating) instructions and their attitudes toward uniform guidelines;
- Z preferences for labeling features (i.e., cooking statements and logos) on not-ready-to-eat (NRTE) products and attitudes toward mandatory preparation instructions;
- Z use and understanding of product dates and their attitudes toward mandatory product dating;
- Z preferences for labeling of irradiated meat and poultry products; and
- Z use of ingredients statements and preferences for labeling of food products with possible allergens.

This report discusses the design of the focus group study and presents the key findings from the focus group discussions and

the questionnaire administered to participants prior to the discussion. The report is organized as follows: Section 2 provides a background on the Agency's need for consumer research on food safety labeling features; Section 3 describes the study design; Section 4 presents information on participants' demographics; Section 5 presents the findings from the focus group discussions and the prediscussion questionnaire; and Section 6 concludes the report with our recommendations.

# 2

## Background

In April 2001, RTI completed consumer research for FSIS on consumer perceptions of NRTE meat and poultry labeling terminology following the implementation of FSIS Notice 23-99, “Instructions for Verifying *Listeria monocytogenes* (*Lm*) Reassessment” (Cates, Carter-Young, and Gledhill, 2001). This notice provided instructions to program employees to verify that establishments have conducted a reassessment of their Hazard Analysis and Critical Control Points (HACCP) plans for controlling *Lm* in ready-to-eat (RTE) products. As a result of this notice, some manufacturers have recategorized their RTE products to NRTE products. Thus, it was hypothesized that two similar food products within a processing category with different preparation instructions (e.g., a hot dog, which is required by federal regulations to be fully cooked and RTE), would result in consumer confusion when some brands include “heating” instructions for quality and other brands provide “cooking” instructions for safety.

The focus group research conducted by RTI showed that consumers consider the information and directions provided on a product label as the key factor in determining whether a product is RTE or NRTE. Consumers associate “heating instructions” with RTE products and “cooking instructions” with NRTE products. Consequently, when cooking instructions are provided on products traditionally regarded as RTE, consumers are confused about how to prepare the product. Of particular interest was the finding that consumers do not rely on product name qualifying terms (i.e., baked, fried) to determine whether a product is fully cooked. The research also revealed that the focus group

participants generally support the idea of NRTE product labels displaying a logo and statement (e.g., “Cook Thoroughly”) to inform consumers that the product is not ready to eat and requires cooking for safety.

This research showed that there is a need to clearly differentiate RTE and NRTE products for the consumer. It also identified additional areas of research need. Informing consumers on how to properly prepare NRTE foods to destroy pathogens, a critical part of the farm-to-table concept, is important in controlling foodborne illness. Use-by/sell-by dates may also help inform consumers on how long a product can be stored before the quality and safety of the product become questionable. In light of these food safety concerns, the Agency needs data on whether consumers believe preparation instructions and use-by/sell-by dates are useful and whether these features should be required on all meat, poultry, and egg products.

In addition, FSIS needs consumer research on other timely food safety labeling issues for future policy considerations. Those issues include the labeling of irradiated meat and poultry products and allergen labeling. FSIS also desires information on consumers’ use and understanding of other labeling features (i.e., Nutrition Facts panel, handling statements, and SHI) required on some meat, poultry, and egg products.

# 3

## Methods

In this section, we describe the focus group methodology, present the study design, and discuss the development of the moderator guide and prediscussion questionnaire.

---

### 3.1 FOCUS GROUP METHODOLOGY

Market researchers often use qualitative research methods to learn more about consumers' preferences and attitudes. Focus groups are one of the most frequently used methods of qualitative research (Greenbaum, 1988). A focus group discussion generally consists of 8 to 10 individuals who discuss selected topics with a skilled moderator for approximately 1 to 2 hours. Recruiters prescreen participants to ensure that they meet certain criteria. Participants generally receive a monetary incentive for their participation.

Focus groups are a valuable tool for collecting information on consumers' preferences and attitudes. Although the results should not be generalized to a larger population in any statistical sense, they can be useful in guiding policy decisions.

The moderator uses a moderator guide to serve as an outline that provides structure for the focus group discussion. The moderator encourages interaction among group members and follows through on responses to ensure that the discussion centers on the main topics. According to Greenbaum (1988), the dynamics of the group process result in the generation of more useful information, on a cost-efficient basis, than would otherwise be available.

Focus groups help researchers gain an understanding of the "why" behind consumers' attitudes and behavior (Greenbaum, 2000). Although the results of focus group discussions should not be generalized to a larger population in any statistical sense, (Kruger, 1988; Fern, 1982), they can be useful in guiding policy

decisions. For example, the Agency used focus groups in developing the SHI label for raw meat and poultry packaging (Teague and Anderson, 1995).

### 3.2 STUDY DESIGN

RTI conducted a total of six focus groups—two groups in each of three locations (Raleigh, North Carolina; Philadelphia, Pennsylvania; and St. Louis, Missouri). We selected the sites to provide geographic diversity. In each location, we conducted one focus group with individuals who have a high school education or less and one focus group with individuals who have a college education. We conducted two groups with individuals between the ages of 18 and 30, two groups with individuals between the ages of 35 and 55, and two groups with individuals 60 years of age or older. Table 3-1 shows the population and location for the six focus groups.

Table 3-1. Focus Group Populations and Locations

Group	Age	Education <sup>a</sup>	Location
1	60+	C	Raleigh, NC
2	18 – 30	HS	Raleigh, NC
3	35 – 55	HS	Philadelphia, PA
4	18 – 30	C	Philadelphia, PA
5	60+	HS	St. Louis, MO
6	35 – 55	C	St. Louis, MO

<sup>a</sup>HS = High school education or less; C = College education.

Each focus group included eight participants, for a total of 48 participants. Each group included four males and four females and reflected the racial diversity of the area in which the group was conducted. In addition to the population characteristics specified above, participants met the following additional criteria:

- Z have primary responsibility or share responsibility for shopping for groceries in the household;
- Z have primary responsibility or share responsibility for cooking in the household;
- Z are not vegetarian;

- Z prepare food and cook at home at least three times a week;
- Z have prepared frozen, prepackaged meat/poultry/egg products (e.g., frozen dinners or entrees) in the past week;
- Z have prepared hot dogs, luncheon/deli meats, or egg products in the past week;
- Z have not participated in a focus group in the past 6 months; and
- Z have no family member (including participant) employed by the federal government; the food industry; the health care industry; or a marketing research, advertising, or public relations company currently or within the past 5 years.

In addition, we attempted to recruit at least three individuals for each group that have or have members in their household with food allergies.

Appendix A provides a copy of the questionnaire used to screen and recruit participants. Participants received a monetary incentive of \$50 in Raleigh and \$60 for Philadelphia and St. Louis.

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### 3.3 MODERATOR GUIDE AND PREDISCUSSION QUESTIONNAIRE

The moderator guide serves as an outline that provides structure for the focus group discussion. Working with FSIS, RTI developed a draft moderator guide that we pretested by conducting a focus group with household cooks and grocery shoppers in Bethesda, Maryland. We revised the moderator guide based on the pretest findings.

The moderator guide was designed to collect information on participants'

- Z use and understanding of the Nutrition Facts panel, handling statements, and the SHI label;
- Z use of preparation (cooking and heating) instructions and their attitudes toward uniform guidelines;
- Z preferences for labeling features (i.e., cooking statements and logos) on NRTE products and attitudes toward mandatory preparation instructions;
- Z use and understanding of product dates and their attitudes toward mandatory product dating;
- Z preferences for labeling of irradiated meat and poultry products; and

- Z use of ingredients statements and preferences for labeling of food products with possible allergens.

Appendix B presents the final moderator guide and the handouts distributed during the group discussion. Table 3-2 provides a brief summary of each section in the moderator guide. We asked participants to limit their discussion to meat, poultry, and egg products. We presented participants with the product categories shown below and often referred to these categories throughout the discussion:

- Z frozen entrees and dinners
- Z refrigerated entrees and dinners
- Z processed products
- Z canned products
- Z dehydrated products
- Z raw meat and poultry
- Z egg products

Prior to the focus group discussions, participants completed a 13-item questionnaire that collected information on their use of product dates and preparation instructions, their awareness of irradiated meat and poultry products, and demographics (e.g., education, age, race). Appendix C provides a copy of the prediscussion questionnaire.

We conducted the focus groups between December 6, 2001, and December 12, 2001. Each focus group lasted about 90 minutes and was audiotaped and videotaped. Volume 2 of this report provides the transcripts from each focus group discussion.

Table 3-2. Moderator Guide Summary

Section	Purpose
Introduction	Moderators described the purpose of the discussion and how it would be conducted; participants introduced themselves.
Nutrition Facts Panel, Handling Statements, and Safe Handling Instructions	Participants discussed their use and understanding of the Nutrition Facts panel, handling statements, and the SHI label.
Preparation Instructions and Labeling of NRTE Products	Participants discussed their use of preparation (cooking or heating) instructions and their attitudes toward uniform guidelines for preparation instructions. Participants also discussed their preferences for cooking logos and statements for NRTE products and their attitudes toward mandatory preparation instructions for all NRTE products.
Food Product Dating	Participants discussed how they determine product storage time, their use and understanding of product dates, and their knowledge of how product dates are determined and validated. Participants also discussed their attitudes toward mandating product dating.
Labeling of Irradiated Meat and Poultry Products	Participants discussed their awareness and understanding of irradiation and pasteurization. Participants evaluated alternative labeling statements for irradiated products and discussed whether it was appropriate to label irradiated meat and poultry products as “pasteurized.”
Labeling of Products with Possible Allergens	Participants discussed their use of ingredients statements. Participants who for shop for individuals with food allergies discussed how they identify products with possible allergens. Participants discussed alternative features for allergen labeling (including the source of the allergen in the product’s ingredients statement, requiring mandatory allergen statements, and providing an 800 number or web site that consumers could access for allergen information).
Conclusion	Participants shared any final comments.



# 4

## Participant Demographics

A total of 48 individuals ages 18 to over 70 participated in the six focus groups. All participants have primary or shared responsibility for cooking and grocery shopping in their households; prepare food and cook in the home at least three times a week; and regularly prepare prepackaged meat, poultry, and/or egg products. Table 4-1 summarizes demographic information for the focus group participants. Table 4-2 provides demographic information by group as reported in the prediscussion questionnaire.

Table 4-1. Participant Demographics—Summary

---

Gender	
Male:	50%
Female:	50%
Race/Ethnicity	
Caucasian:	69%
African American:	25%
Asian/Pacific Islander:	2%
Other race/multiracial:	2%
No response:	2%
Hispanic or Spanish origin:	8%
Average income	
All participants:	\$49,353
High school education groups:	\$41,310
College education groups:	\$57,396

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Table 4-2. Participant Demographics, by Group

Question	Number of Participants							Percentage of Participants (%)
	Group 1 (n = 8)	Group 2 (n = 8)	Group 3 (n = 8)	Group 4 (n = 8)	Group 5 (n = 8)	Group 6 (n = 8)	Total (n = 48)	
Gender								
Male	4	4	4	4	4	4	24	50
Female	4	4	4	4	4	4	24	50
Age								
18–24	0	3	0	3	0	0	6	13
25–30	0	5	0	4	0	0	9	19
31–34	0	0	0	1 <sup>a</sup>	0	0	1	2
35–39	0	0	3	0	0	1	4	8
40–44	0	0	3	0	0	3	6	13
45–49	0	0	1	0	0	0	1	2
50–55	0	0	1	0	0	3	4	8
56–59	0	0	0	0	0	0	0	0
60+	8	0	0	0	8	1 <sup>a</sup>	17	35
Hispanic or Spanish origin	1	1	1	0	1	0	4	8
Race/ethnicity								
White/Caucasian	5	5	4	6	6	7	33	69
Black/African American	2	3	3	2	1	1	12	25
Native American/Alaskan Native	0	0	0	0	0	0	0	0
Asian/Pacific Islander	1	0	0	0	0	0	1	2
Another race or multiracial	0	0	1	0	0	0	1	2
No answer	0	0	0	0	1	0	1	2

Note: Group 1 = Raleigh, ages 60+, college education

Group 2 = Raleigh, ages 18–30, high school education

Group 3 = Philadelphia, ages 35–55, high school education

Group 4 = Philadelphia, ages 18–30, college education

Group 5 = St. Louis, ages 60+, high school education

Group 6 = St. Louis, ages 35–55, college education

(continued)

Table 4-2. Participant Demographics, by Group (continued)

Question	Number of Participants							Percentage of Participants (%)
	Group 1 (n = 8)	Group 2 (n = 8)	Group 3 (n = 8)	Group 4 (n = 8)	Group 5 (n = 8)	Group 6 (n = 8)	Total (n = 48)	
<b>Education</b>								
11th grade or less	0	1	0	0	0	0	1	2
High school graduate or GED	0	7	7	0	7	0	21	44
Some college	0	0	1 <sup>a</sup>	1 <sup>a</sup>	0	0	2	4
College graduate	5	0	0	6	0	4	15	31
Postgraduate	3	0	0	1	0	4	8	17
No answer	0	0	0	0	1	0	1	2
<b>Total household income before taxes</b>								
\$9,999 or less	0	1	0	0	0	0	1	2
\$10,000 – \$14,999	0	0	0	0	0	0	0	0
\$15,000 – \$19,999	0	0	0	0	0	0	0	0
\$20,000 – \$24,999	1	1	1	0	0	1	4	8
\$25,000 – \$34,999	0	1	3	1	3	1	9	19
\$35,000 – \$49,999	2	2	1	2	1	1	9	19
\$50,000 – \$74,999	3	2	3	2	2	4	16	33
More than \$75,000	2	1	0	3	0	1	7	15
No answer	0	0	0	0	2	0	2	4
Participant or household member has food allergies <sup>b</sup>	3	2	4	2	4	4	19	40

<sup>a</sup>As part of the recruiting process, each participant was screened to ensure that he or she met certain criteria (e.g., college educated). However, several individuals reported different information for education or age on the prediscussion questionnaire.

<sup>b</sup>The food allergy information is based on what participants reported in the screening process and in the focus group discussion.

Note: Group 1 = Raleigh, ages 60+, college education      Group 4 = Philadelphia, ages 18–30, college education  
 Group 2 = Raleigh, ages 18–30, high school education      Group 5 = St. Louis, ages 60+, high school education  
 Group 3 = Philadelphia, ages 35–55, high school education      Group 6 = St. Louis, ages 35–55, college education



# 5

## Results

In this section, we present the findings from the six focus group discussions and summarize the results from the prediscussion questionnaire. Appendix D provides individual summaries for each of the six focus groups.

---

### 5.1 NUTRITION FACTS PANEL

<b>Nutrition Facts</b>	
<b>Amount per serving</b>	
<b>Calories</b>	190
Fat Calories	100
<b>%DV</b>	
<b>Total Fat</b> 12g	<b>19%</b>
Sat. Fat 2.5g	<b>12%</b>
<b>Cholest.</b> 0mg	<b>0%</b>
<b>Sodium</b> 190mg	<b>8%</b>
<b>Total Carb.</b> 14g	<b>5%</b>
<b>Protein</b> 8g	

In this section, we discuss participants' use and understanding of the information provided in the Nutrition Facts panel. USDA permits voluntary nutrition labeling on single-ingredient, raw meat and poultry products and mandates nutrition labeling for all other meat, poultry, and egg products with certain exceptions (§317.300 – §317.400 for meat, §381.400 – §381.500 for poultry, and §590.411[e] for egg products).

Most participants read the Nutrition Facts panel when shopping for meat, poultry, and egg products and find this information useful in making purchase decisions. Most participants seek out information regarding

- Z calories,
- Z sodium,
- Z cholesterol,
- Z fat, and
- Z sugar.

Some participants also seek out information on carbohydrates. A few participants are interested in fiber, protein, and vitamins.

Most participants read the Nutrition Facts panel when shopping for meat, poultry, and egg products. They understand this information and find it useful in making purchase decisions.

In most cases, only one or two participants from each group do *not* refer to the Nutrition Facts panel. The exception to this was Group 3 (Philadelphia, high school education, ages 35–55) where *most* of the participants do not read the Nutrition Facts panel. Participants say they do not read the Nutrition Facts panel because they do not have any particular health concerns or are not concerned about their weight. One participant stated, “*I do not have any health concerns that would force me to read the information.*” Another participant admits, “*If it’s something I like, I don’t care what’s in it.*” Other participants offered similar comments.

Most participants agree that the information on the Nutrition Facts panel is understandable; however, as summarized below, several participants find some of the information confusing.

- Z A few participants find the “% Daily Value” information confusing. For example, if a product’s Nutrition Facts panel states that the “% Daily Value” is 38 percent for sodium then they believe that 38 percent of that product’s contents is sodium.
- Z A few participants would like to know how the information on the Nutrition Facts panel applies to their own health.
- Z One participant suggests using one standard unit of measure for the “amount per serving” information (i.e., provide all information in either milligrams or grams).
- Z One participant does not understand the difference between the different types of fat.
- Z One participant does not understand why products labeled as “sugar-free” have grams of sugar listed on the Nutrition Facts panel.

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## 5.2 HANDLING STATEMENTS

In this section, we discuss participants’ awareness, use, and understanding of handling statements. Packaged products that require special handling to maintain their wholesome condition must display handling statements (§317.2[k] for meat and §381.125[a] for poultry). Examples of handling statements include the following:

- Z “Keep Frozen”
- Z “Keep Refrigerated”
- Z “Keep Refrigerated After Opening”

Nearly all participants have seen handling statements and generally follow the instructions provided. Although most participants describe handling statements as, “*common sense*,” they think they are necessary and critical pieces of information.

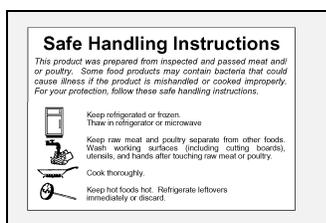
Nearly all participants have seen handling statements on refrigerated and frozen meat, poultry, and egg product labeling. Although most participants describe handling statements as “*common sense*,” they think they are necessary and critical pieces of information. Some participants think handling statements are useful reminders in case they mishandle the product or are unsure if a product needs to be refrigerated after opening. A few participants mentioned previous experiences where they relied on handling statements to determine whether they should eat a product after it had set out for a long period.

The majority of participants generally follow handling statements. A few participants follow the unsafe practice of thawing frozen entrees or dinners at room temperature to shorten the product’s cooking time.

Most participants think companies provide handling statements for both food safety and food quality purposes, while some think companies provide them just for food safety reasons. Participants think companies provide these instructions so consumers will enjoy their products (and will buy them again) and will safely consume them. One participant stated, “*If it doesn’t taste good, you won’t buy it again.*” Other participants offered similar comments.

A few participants think handling statements are used as disclaimers for liability reasons. One such participant stated, “*I think some of that stuff [handling statements] is common sense, but it almost seems that putting it on there protects themselves [manufacturers] in case somebody were to sue for liability reasons.*”

### 5.3 SAFE HANDLING INSTRUCTIONS



In this section, we discuss participants’ awareness and use of the SHI label. Meat and poultry products that have not received an adequate lethality treatment for pathogens (i.e., raw or partially cooked product) are required to display the SHI label (§317.2[l] for meat and §381.125[b] for poultry).

Most participants have seen the SHI label and associate it with raw meat and poultry. Although they consider these instructions to be common sense, they think it serves as a good reminder to handle raw meat and poultry safely.

Most participants have seen the SHI label. They associate this label with raw meat and poultry. The majority of participants do not refer to the information provided on the SHI label when preparing raw meat and poultry at home. Participants describe the instructions as “*common sense*” and instead rely on their past experience and knowledge when handling raw meat and poultry. Although participants do not generally read the SHI label, they believe it serves as a good reminder and should be provided on raw meat and poultry packaging.

Some participants think the SHI label is helpful in determining whether a product requires cooking, especially for new cooks. One participant stated, “*Seeing the cooking sign [on the SHI label] would make me think that it’s raw and that it needs to be cooked.*” Some participants do not rely on the SHI label for determining whether a product requires cooking, and instead rely on their cooking experience. One participant stated, “*I can’t imagine not knowing [whether or not to cook it].*”

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## 5.4 PREPARATION INSTRUCTIONS

In this section, we discuss participants’ use of preparation instructions and their attitudes toward uniform guidelines for preparation instructions. Currently, no federal regulations require preparation instructions or provide guidelines on how this information should be displayed. For the purposes of the focus group discussions, we defined preparation instructions as information on how to cook or prepare a product and noted that preparation instructions may be called “cooking instructions,” “heating instructions,” “baking instructions,” or something similar.

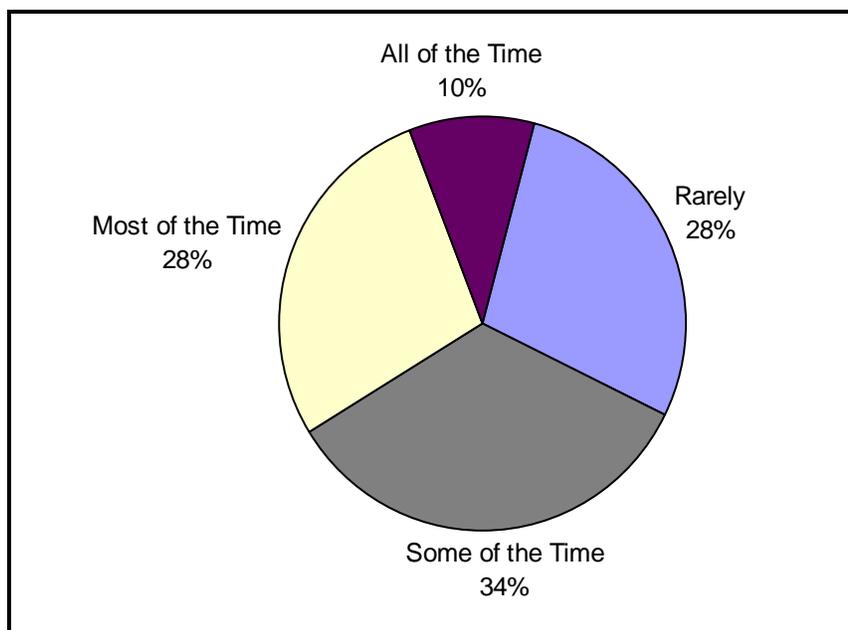
### 5.4.1 Use of Preparation Instructions

About half of the participants look for preparation instructions when shopping for meat, poultry, and egg products. Most participants refer to preparation instructions to determine the cooking method (e.g., bake or microwave) and cooking time. Some participants also read preparation instructions to determine preparation difficulty and convenience, whether other ingredients or materials (e.g., a baking sheet or foil) are needed, and whether the directions are easy to follow.

Many participants use preparation instructions. They find them most useful for frozen and refrigerated entrees/dinners, dehydrated products, and egg products.

As shown in Figure 5-1, about 70 percent of participants use preparation instructions at least some of the time. Most participants read and follow preparation instructions before preparing a product for the first time, but do not generally refer back to them. Few participants read and follow preparation instructions word-for-word each time they prepare a product; instead they rely on their familiarity and past experience with the product. Some participants vary the suggested cooking time to accommodate their ovens or microwaves. Some participants rely on their senses (i.e., sight, taste, or touch) to determine doneness, and a few participants also add or subtract ingredients that are not suggested in the product's preparation instructions.

Figure 5-1. Percentage of Participants Who Use Preparation Instructions on Meat, Poultry, and Egg Product Labeling  
Many participants use preparation instructions at least some of the time.



Source: Prediscussion questionnaire (n = 48). Because a probability-based sample was not used, the results from the prediscussion questionnaire should not be generalized to the U.S. population of household shoppers and cooks in any statistical sense.

Some participants noted that the packaging for raw meat and poultry does not always provide preparation instructions; thus, participants rely on their past experience with the product, and some rely on recipes and cookbooks to prepare raw meat and poultry. Few participants use a food thermometer to measure the internal temperature of meat and poultry.

As shown in Table 5-1, participants think preparation instructions are most useful for frozen and refrigerated entrees/dinners, dehydrated products, and egg products. Participants think preparation instructions are somewhat useful for raw meat and poultry products, especially products they prepare infrequently (e.g., turkeys, ducks, and large roasts). Participants think preparation instructions are least useful for canned and processed products; however, several participants think novice cooks and children would find them useful.

Table 5-1. Participants' Opinions on the Usefulness of Preparation Instructions for Meat, Poultry, and Egg Products  
Participants consider preparation instructions to be most useful for frozen and refrigerated entrees/dinners, dehydrated products, and egg products.

Product Category	Most Useful	Somewhat Useful	Least Useful
Frozen entrees and dinners	M		
Refrigerated entrees and dinners	M		
Processed products			M
Canned products			M
Dehydrated products	M		
Raw meat and poultry		M	
Egg products	M		

Nearly all participants think preparation instructions are product specific; that is, they do not think preparation instructions displayed on one product can be used for another similar product. Also, nearly all participants follow product-specific preparation instructions; they do not rely on their past experience with other similar products.

Most participants believe companies provide preparation instructions for both food quality and food safety purposes. They think companies provide preparation instructions so consumers will be satisfied with the product and safely prepare the product. One participant stated, *"If you don't like it, it doesn't taste good, you're not going to buy the product again."* Another participant stated, *"Well if you get sick after you eat it, you're...not going to buy it again."* A few participants think companies provide

preparation instructions primarily for quality purposes. One participant stated, *“I don’t think it says that if you don’t cook it for that length of time it’s going to have bacteria in it.”*

A few participants think preparation instructions are also provided for liability reasons. One participant stated, *“I think they’d [companies] rather avoid a major lawsuit and lose their business.”* Only a few participants think the federal government requires companies to provide preparation instructions on product labeling for food safety purposes.

#### 5.4.2 Attitudes toward Uniform Guidelines

We asked participants about their preferences for uniform guidelines for preparation instructions. Uniform guidelines would specify that certain information be provided in a specific format. Some participants like the idea of uniform guidelines. They suggest that all preparation instructions include the following information:

- Z cooking time
- Z cooking temperature
- Z recommended cooking method
- Z easy to read, step-by-step directions

A few participants suggest including the following information:

- Z Precautions (e.g., “May Produce Steam”)
- Z Friendly tips (e.g., “Do Not Add Too Much Water”)
- Z Information on how to store leftovers

Some participants like the idea of uniform guidelines for preparation instructions, while others think such guidelines are unnecessary. Uniform guidelines would specify that certain information (e.g., cooking time, temperature, and method) be provided in a specific format.

Most participants in Group 2 (Raleigh, high school, ages 18–30) and Group 4 (Philadelphia, college, ages 18–30) do *not* like the idea of uniform guidelines or are indifferent to the concept. They think uniform guidelines are unnecessary. They believe companies already provide appropriate and useful information and that it should be up to individual companies to decide what information to provide and in what format. One participant stated, *“I think they’ve already done a good job.”*

Most participants agree that they would prefer to see preparation instructions displayed on the back of the product packaging. Several participants suggest placing the preparation instructions

next to the Nutrition Facts panel. Some participants suggest that preparation instructions be large enough to read.

## 5.5 LABELING OF NRTE PRODUCTS

In this section, we discuss participants' preferences for labeling of NRTE meat, poultry, and egg products. Although the use of the SHI label is mandatory on some NRTE products,<sup>1</sup> other labeling features that indicate that cooking is required such as cooking statements (e.g., "Cook Thoroughly") and preparation instructions are optional. For the purposes of the focus group discussions, we referred to NRTE products as products that need to be cooked for safety and defined "cooking for safety" to mean that a product must be properly cooked before eating to prevent foodborne illness.

### 5.5.1 Preferences for Cooking Statements and Logos



We asked participants about their preferences for using cooking statements (e.g., "Cook Thoroughly") in conjunction with universal logos or symbols on product labeling to indicate that cooking for safety is required. The side bar shows the logos that we presented to the focus group participants.<sup>2</sup>

Most participants like the use of cooking statements in conjunction with cooking logos on NRTE product labeling; however they do *not* like the idea of replacing preparation instructions with cooking statements/logos.

Most participants like the use of cooking statements in conjunction with cooking logos on NRTE product labeling. Participants agree that a combination of both cooking statements and logos would be useful to consumers. They think that cooking statements/logos would be especially useful for those consumers who speak English as a second language and those who cannot read. One participant compared the logos to those used on clothing labels and thinks that having a coding system for food would be useful. Some participants think that cooking statements/logos would be helpful in distinguishing between RTE and NRTE foods. One participant stated, "*Some products need to be cooked. Some just*

<sup>1</sup>Meat and poultry products that have not received an adequate lethality treatment for pathogens (i.e., raw or partially cooked product) are required to display the SHI label (§317.2[l] for meat and §381.125[b] for poultry).

<sup>2</sup>In previous focus groups conducted for FSIS (Cates, Carter-Young, and Gledhill, 2001), we found that most participants liked the use of universal logos or symbols; the sidebar shows the two logos most preferred by the focus group participants.

*need to be heated. It would be nice to label these products accordingly.”*

Most participants do *not* like the idea of replacing preparation instructions with cooking statements/logos. They prefer to see both preparation instructions and cooking statements/logos on NRTE meat, poultry, and egg product labeling.

### 5.5.2 Attitudes toward Mandatory Preparation Instructions

Many participants support mandatory preparation instructions to help consumers safely prepare NRTE meat, poultry, and egg products. Participants who oppose mandatory preparation instructions say it is manufacturers' responsibility, not the government's, to provide this information.

Many participants support regulations requiring preparation instructions on the labeling for all NRTE meat, poultry, and egg products. They think preparation instructions are necessary for food safety reasons and are especially important for novice cooks. One participant stated, *“If handling statements are important to them [USDA, FSIS], I don't see why it [preparation instructions] wouldn't be just as important.”* Another said, *“Because if you prepared it [the product] wrong, you'll get sick. If the companies don't protect themselves, the government should be looking out for us too.”* One participant summed it up by saying, *“The more information provided, the better.”*

Participants who do *not* support such regulations believe that it is manufacturers' responsibility, not the government's, to provide instructions on how to properly prepare and cook the product. One participant stated, *“I don't think the government needs to tell this company how to print the cooking instructions on there. Things like nutrition facts and safety, sure, but not how to cook it.”* Some participants think that companies will provide preparation instructions if they want consumers to buy their products. One participant stated, *“It's their [the consumer's] decision to buy [the product]... They'll realize that there are no instructions on it, so they won't buy it.”* Some participants believe companies already do a good job of providing preparation instructions, so government regulations are unnecessary.

## 5.6 FOOD PRODUCT DATING

In this section, we summarize participants' use and understanding of dates on meat, poultry, and egg product labeling and their attitudes toward mandatory product dating. With the exception of infant formula and some baby food, product dating is not required

by federal regulations, and no uniform standards are used for food product dating in the United States.

#### 5.6.1 Use of Product Dates

As shown in Figure 5-2, 86 percent of participants check product dates all or most of the time before purchasing meat, poultry, or egg products. Participants check product dates to ensure product freshness and safety. Participants tend to purchase products that have some time between the date of purchase and the date shown on the product. Most participants refer to product dates when making purchase decisions for perishable products. For example, when deciding which brand of product to buy, most participants say they will not purchase a brand without a date.

Most participants check product dates before purchasing meat, poultry, or egg products to ensure product freshness and safety. Many participants check the date again before cooking or preparing the product.

As shown in Figure 5-2, 69 percent of participants check product dates all or most of the time before cooking or preparing the product. Participants check product dates to ensure that the product is still fresh and safe to eat. Some participants do not refer back to the product date because they use the product within a week or so after purchase. Some participants rely on the smell and appearance of the product, instead of product dates, to determine storage time. After freezing raw product, most participants do not refer back to the product date, although several participants have concerns about the safety of raw product that has been stored in the freezer for a long period of time.

Some participants will use meat, poultry, or egg products a few days beyond their sell-by or use-by date as long as the product smells and looks okay. Others will throw a product away as soon as the sell-by or use-by date has expired.

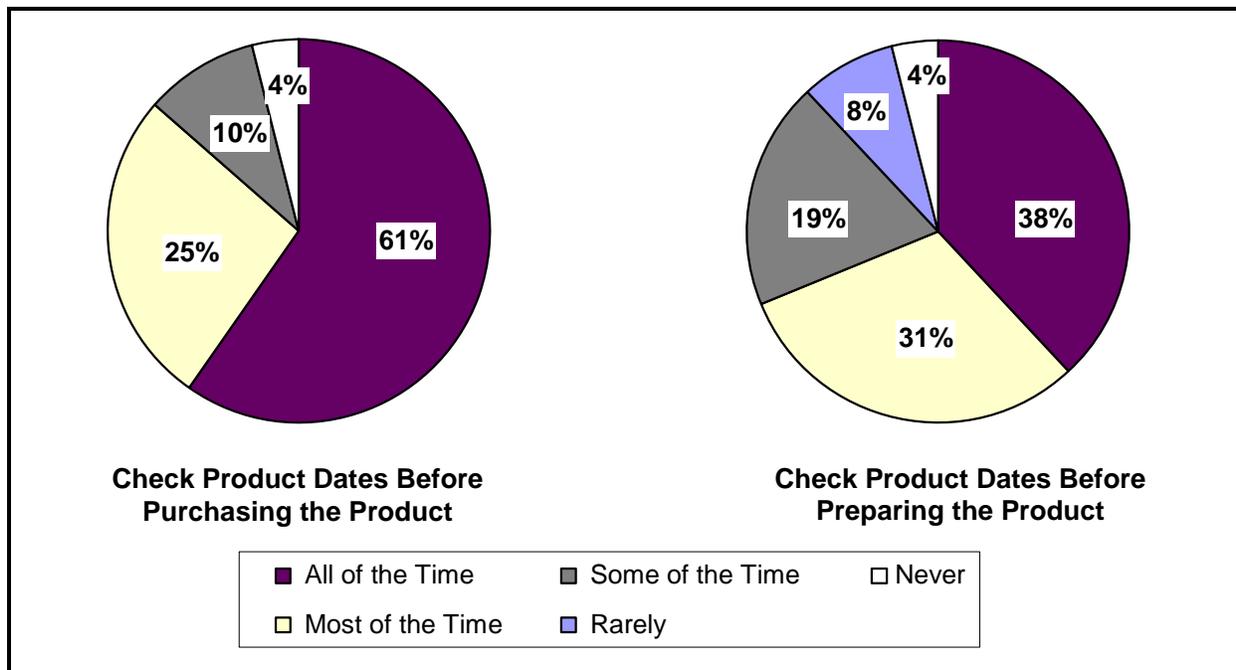
As shown in Table 5-2, participants think product dates are most useful for refrigerated entrees/dinners, processed products, raw meat and poultry, and egg products. Participants find product dates somewhat useful for dehydrated products. Participants find product dates to be least useful for frozen entrees/dinners and canned products. They do not look for product dates on these products.

### 5.6.2 Understanding of Product Dates

Most participants correctly defined the different types of product dates (sell-by, best-if-used-by, and use-by) we asked about in each group discussion. Some participants find the use of different dates confusing and do not distinguish among them.

Figure 5-2. Percentage of Participants Who Use Sell-By and/or Use-By Dates on Meat, Poultry, and Egg Product Labeling

Participants frequently check product dates before purchasing and preparing meat, poultry, and egg products.



Source: Prediscussion questionnaire (n = 48). Because a probability-based sample was not used, the results from the prediscussion questionnaire should not be generalized to the U.S. population of household shoppers and cooks in any statistical sense.

Table 5-2. Participants' Opinions on the Usefulness of Product Dates for Meat, Poultry, and Egg Products  
 Participants think product dates are most useful for refrigerated entrees/dinners, processed products, raw meat and poultry, and egg products.

Product	Most Useful	Somewhat Useful	Least Useful
Frozen entrees or dinners			M
Refrigerated entrees or dinners	M		
Processed products	M		
Canned products			M
Dehydrated products		M	
Raw meat and poultry	M		
Egg products	M		

**Types of Dates**

A **“Sell-By”** date tells the store how long to display the product for sale. You should buy the product before the date expires.

A **“Best-if-Used-By (or Before)”** date is recommended for best flavor or quality. It is not a purchase or safety date.

A **“Use-By”** date is the last date recommended for the use of the product while at peak quality.

Source:

<http://www.fsis.usda.gov/opa/pubs/dating.htm>

Participants correctly define the sell-by date as being for the store’s use; that is, the date by which the store should pull the product from its shelves. Many participants believe the sell-by date is provided for quality purposes, rather than food safety; some participants think the date is provided for food safety purposes or find it difficult to distinguish between safety and quality. Most participants believe a product is still good after the sell-by date, but they are unsure for how long and will not buy a product if the sell-by date has expired or is close to expiring. Some participants are concerned with using a product after the sell-by date has passed because they are unsure of its freshness. Many participants consider the sell-by date not very useful because it does not provide any guidance on how long one can safely store the product at home. One participant stated, *“If the store can’t sell it after that date, why would I want to buy it?”*

Participants correctly define the best-if-used-by date as when to consume the product for best taste, freshness, and quality. Most participants believe this date is provided for quality purposes. Most participants find this date to be the least useful to consumers. A few participants even describe the date as *“misleading.”* One participant said, *“I don’t like that [the best-if-used-by date], I think it’s misleading. If it only said, ‘best-if-used-by,’ then I would guess I could probably still use it.”*

Participants correctly define the use-by date as the date by which the consumer should use the product. One participant stated, “...*after this date, it’s not going to be good any more.*” Many participants consider the use-by date to be mainly provided for food safety purposes rather than quality; some participants think the date is provided for quality purposes or find it difficult to distinguish between safety and quality. Most participants agree that the use-by date is most useful to consumers.

Participants think that manufacturers, the government, and supermarkets (for raw meat and poultry) determine product dates and verify their accuracy. Some participants believe that manufacturers (e.g., their quality control department) determine product dates and periodically perform tests to check the accuracy of these dates. Some participants think the government plays a role by establishing guidelines that manufacturers must follow or periodically verifying that product dates set by manufacturers are safe and accurate. A few participants think that because meat, poultry, and egg products are inspected by USDA, the Agency periodically performs tests to see if product dates are accurate. One participant stated, “*If the government’s going to put ‘USDA’ [USDA’s inspection legend] on there [the product], of course they should be able to say, ‘Yeah, we’re checking on them periodically to see if what we’re saying is fresh for you is actually fresh for you.’*”

Several participants are unsure but hope that the government plays a role in determining and verifying product dates. One such participant stated, “*I would like to think that the USDA sets standards and helps in making them [the manufacturers] follow them.*” Another said, “*I feel like the USDA would not let them [the manufacturers use product dates] if they [the manufacturer’s product dates] were bad.*” A few participants think *Consumer Reports* conducts tests on the accuracy of product dates.

These findings suggest there exists some confusion among participants as to how products dates are determined and verified.

### 5.6.3 Attitudes toward Mandatory Product Dating

Most participants support mandatory product dating for all meat, poultry, and egg products to ensure product safety. One

participant said, “*The federal government needs to step in on this one.*” Most participants find the use of different dates confusing and would like to see a universal dating system adopted in which all products display the same date, preferably a use-by date. One participant said, “*I think a use-by date is a lot better because you know that after that date you don’t use it anymore. But a sell-by date means, ‘just get it out of the store by this day.’ That doesn’t mean that two weeks later you can or can’t use it.*” Several participants prefer the sell-by date, particularly for raw meat and poultry products.

Most participants support mandatory product dating for all meat, poultry, and egg products and would like to see a universal dating system adopted in which all products display the same date, preferably a use-by date.

Several participants do not support mandatory product dating for all meat, poultry, and egg products. Instead, they think it should be manufacturers’ responsibility to provide product dates when deemed necessary. One participant stated, “*I put faith in the manufacturers to provide an appropriate date and a safe product.*” A few participants are concerned about the cost of such a regulation.

## 5.7 LABELING OF IRRADIATED MEAT AND POULTRY PRODUCTS

In this section, we discuss participants’ awareness of irradiated meat and poultry products and their preferences for labeling irradiated products. Only refrigerated or frozen raw meat and poultry products, meat by-products, and certain other meat products may be irradiated. Irradiated meat and poultry products are required to display the Radura symbol on the label. In addition to the Radura symbol, manufacturers of irradiated products must also provide a written statement on the product label such as “Treated by Irradiation” or “Treated with Radiation” if the name of the product does not include the word “irradiated” (§424.22[c] for meat and poultry).

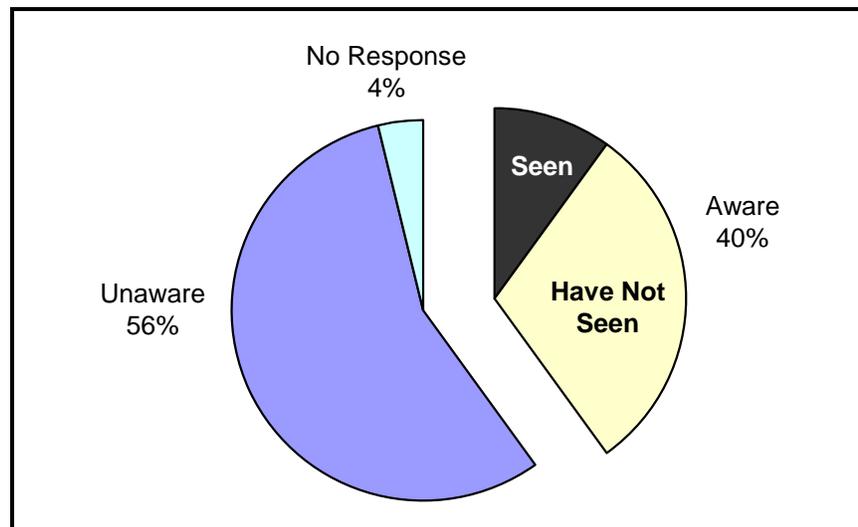
Irradiated meat and poultry products are required to display the Radura symbol and an irradiation statement on the label.



Awareness of irradiated meat and poultry products is low. Prior to being contacted for the focus group study, 40 percent of the participants were aware that some meat and poultry products are treated with radiation to decrease harmful bacteria (see Figure 5-3). Several participants linked their awareness to recent press coverage on using radiation to treat anthrax-tainted mail. Five of the 64 participants recall seeing an irradiated meat or poultry

product, and one participant has purchased an irradiated meat or poultry product.

Figure 5-3. Percentage of Participants Who Are Aware of and Have Seen Irradiated Meat and Poultry Products  
Awareness of irradiated meat and poultry products is low.



Source: Prediscussion questionnaire (n = 48). Because a probability-based sample was not used, the results from the prediscussion questionnaire should not be generalized to the U.S. population of household shoppers and cooks in any statistical sense.

Many participants are unaware of irradiated meat and poultry products and are unsure of the safety of irradiated products given their limited knowledge.

Most participants do not consider themselves well informed or educated on the process of irradiation and all desire more information. Many participants are unsure about the safety of irradiated products. One participant asked, “Do we need food to be irradiated?” Another participant said, “I don’t know if I want to eat something that’s been irradiated.” Given their limited knowledge of irradiation, some participants were not comfortable evaluating the alternative labeling statements for irradiated meat and poultry products.

Participants evaluated the following irradiation statements:

- Z “Treated by Irradiation”
- Z “Treated with Radiation”
- Z “Irradiated for Your Safety”
- Z “Irradiated to Decrease Harmful Bacteria”
- Z “Irradiated by an Electronic Process to Decrease Harmful Bacteria”

Most participants prefer the following statements:

Participants like the following statements for irradiated meat and poultry products:

- Z “Irradiated to Decrease Harmful Bacteria”
- Z “Irradiated for Your Safety”
- Z “Treated by Irradiation”

Z “Irradiated to Decrease Harmful Bacteria”

Z “Irradiated for Your Safety”

Participants like these two statements because they provide information on what irradiation does to the product (i.e., makes it safer and decreases harmful bacteria). However, one participant remarked that the statement, “Irradiated for Your Safety” implies that prior to irradiation, products have not been safe.

Some participants want a statement that is short and simple and think that consumers should take the initiative and educate themselves about irradiation. These participants prefer this statement:

Z “Treated by Irradiation”

A few participants prefer the statement, “Irradiated by an Electronic Process to Decrease Harmful Bacteria.” They think this statement provides the most information about the process of irradiation.

Participants dislike the statement “Treated with Radiation.” A few participants in each group say they associate this statement with cancer, chemotherapy, or “nuking.”

A few participants suggest the following alternative statements:

Z “Meat Irradiated by Standards Set by the USDA”

Z “Processed to Decrease Harmful Bacteria”

Z “Irradiated.”

At this time, FSIS considers labeling statements or claims for irradiated products that include the term “pasteurization” to have the potential for creating consumer confusion (USDA, FSIS, 2001). FSIS continues to examine the term “pasteurization” and its use on a case-by-case basis. For future policy development, FSIS desires information on consumer perceptions of irradiated meat and poultry products labeled with the term “pasteurization.”

Most participants properly defined the term “pasteurization.” They understand it to be a heating process to kill bacteria. Each group provided a definition:

Z *“A process invented by Louis Pasteur that heats a product to a certain temperature to kill bacteria.”*

Z *“A process that cooks a product to kill bacteria.”*

- Z “A process that heats a product to a certain point to kill bacteria.”
- Z “Removes bacteria from milk to make it safe to drink.”
- Z “A heating process to kill certain bacteria.”
- Z “A process that removes impurities from a product.”

Participants correctly define “pasteurization” and associate the process with dairy products, egg products, and fruit juices.

A few participants correctly believe that pasteurization is also used to prolong a product’s shelf life.

Participants repeatedly identified dairy products (e.g., milk, cheese, and yogurt), egg products, and fruit juices (e.g., orange and apple juices) as foods that are pasteurized. One participant also mentioned beer, and another participant mistakenly believes that condensed soups are pasteurized.

Participants are unsure about the need to cook pasteurized products; some participants think pasteurized products require cooking and others think that cooking is not required. One participant said, “*I don’t have a clear enough definition of it to say that*” pasteurized products need to be cooked. Another participant stated, “*It depends on what the food was, I would think.*”

Participants consider irradiation and pasteurization to be two different processes so they consider it misleading to label irradiated meat and poultry products as “pasteurized.”

Nearly all participants do not think the term “pasteurized” should be used on meat and poultry products treated with radiation. They consider pasteurization and irradiation to be two different processes; hence, they think that labeling irradiated meat and poultry products as “pasteurized” would be “*misleading*” and “*deceitful*.” One participant stated, “*I don’t think you can compare the two. It’s a totally different process.*” Another said, “*It’s misleading. You can’t tell someone they’re buying one thing that actually has been treated with something else.*”

## 5.8 LABELING OF PRODUCTS WITH POSSIBLE ALLERGENS

In this section, we discuss participants’ use of ingredients statements on product labeling and their preferences for labeling products with possible allergens. Products with two or more ingredients are required to display an ingredients statement on the product label (§317.2[f] for meat, §381.118 for poultry, and §590.411[c] for egg products). The ingredients statement must provide the common or usual names of the ingredients listed in descending order of predominance, with certain exceptions. For

future policy development, FSIS desires information on whether consumers would find it useful to have additional labeling features to help them identify products with possible allergens.

#### 5.8.1 Use of Ingredients Statements

About half of the participants read the ingredients statement, particularly for products for which they are unfamiliar. Most participants who have or have household members with food allergies always read ingredients statements.

About half of the participants read the ingredients statement on product labeling. Of those participants who read the ingredients statement, some always read them, and many only read them when trying a product for the first time. Only some participants think *all* of the product's ingredients are listed. Some participants find the ingredients statement confusing because they are unfamiliar with the names of many ingredients.

Nineteen participants have or have members in their household with food allergies. A few participants have celiac sprue disease, which means consuming foods with allergens could result in severe reactions, and most participants have household members who get moderate side effects from consuming foods with allergens. Most participants who have or have household members with food allergies always read the ingredients statement to identify possible allergens. Several participants do not always read the ingredients statement and rely on their knowledge and past experience with a product. A few participants also look at the picture on the product label or rely on lists of "approved" foods.

#### 5.8.2 Preferences for Allergen Labeling

For some food ingredients (e.g., whey), the source (i.e., milk) of the ingredient, as well as the ingredient (whey) itself, may be a possible allergen. The source of the ingredient may or may not be listed in the ingredients statement. We asked participants whether they think it is necessary to provide both the source and the ingredient in the ingredients statement.

Most participants would like to see the source of the ingredient listed next to the ingredient itself in the ingredients statement. Participants opposed to this idea believe it is consumers' responsibility to know this information if they have food allergies.

Most participants would like to see the source of the ingredient listed next to the ingredient itself in the ingredients statement. They believe this information would be useful to consumers with food allergies in making purchase decisions. A few participants prefer that only the source be listed. Several participants, particularly in Group 5 (St. Louis, high school, ages 60+) think that listing only the ingredient is sufficient. They argue that if people are allergic to a particular ingredient then they should educate themselves and take personal responsibility to read ingredients statements to identify possible allergens.

Companies are not required to display statements providing special allergen information on product labeling. The following are examples of allergen statements that are currently used by some manufacturers:

- Z “Allergic Consumers, See Ingredient List”
- Z “Manufactured in a Facility that Uses Peanuts”
- Z “May Contain Allergens”

We asked participants whether the federal government should require companies to display special allergen statements like these on products with possible allergens. About half of the participants support mandatory allergen statements for products with possible allergens. They think such labeling would be beneficial to the consumer and support it for safety reasons. All of the participants in Group 3 (Philadelphia, high school, ages 35–55) support mandatory allergen statements and insist that the federal government require companies to provide allergen statements to prevent illness and death. One participant stated, “...*they're* [the government] *supposed to be watching out for us...People can get really sick and die from certain allergies.*” Some participants also suggest displaying allergen statements on the front of product packaging or above the ingredients statement.

About half of the participants support mandatory allergen statements (e.g., “May Contain Allergens”) for safety reasons. Some participants do *not* support mandatory allergen statements; they think it is consumers’ responsibility to read the product’s ingredients statement to check for possible allergens.

Some participants do *not* support mandatory allergen statements. They think that individuals with allergies should be responsible for reading ingredients statements to check for possible allergens. Several participants doubt the usefulness of allergen statements. One participant stated, *“If I’m allergic to something, I’m going to read the ingredient list anyway.”* Several participants think it would be difficult to provide allergen statements because there are a lot of different food allergies and they are concerned about too much information on the product label.

Participants in one group suggest that companies highlight or bold ingredients that may be common allergens in the ingredients statement. One participant stated, *“This would be very helpful for people with allergens to identify products more quickly, instead of reading an ingredient list for 20 minutes.”*

Participants are apathetic about a toll-free telephone number or web site consumers could access for allergen information. One participant stated, *“Manufacturers who are really concerned about their relationship with their consumers will take the initiative and provide such information to their customers.”* Those participants who support a toll-free telephone number or web site think the USDA, rather than the individual food companies, should sponsor it. They consider the USDA to be a more credible and knowledgeable source for food allergen information.

# 6

## Conclusion and Recommendations

The focus groups provided information on consumers' use and understanding of different labeling features—the Nutrition Facts panel, handling statements, the SHI label, preparation instructions, product dating, and ingredients statements. In addition, we collected information on consumers' preferences for labeling of NRTE products, irradiated meat and poultry products, and products with possible allergens. Finally, we collected information on consumers' attitudes toward mandatory preparation instructions for all NRTE meat, poultry, and egg products and mandatory product dating for all meat, poultry, and egg products.

Although consumer focus group findings should not be generalized to the general population of consumers in any statistical sense, the findings can be used to help guide policy decisions. Our key findings along with suggested recommendations based on these findings are summarized below.

### *Nutrition Facts Panel, Handling Statements, and Safe Handling Instructions*

- Z Most participants read the Nutrition Facts panel when shopping for meat, poultry, and egg products. They find this information understandable and very useful in making purchase decisions.
- Z Nearly all participants have seen and use handling statements. Although they consider this information common sense, they consider them to be a necessary labeling feature.
- Z Most participants have seen the SHI label. Although they consider these instructions to be common sense, they

think it serves as a good reminder to handle raw meat and poultry safely.

- Z Participants find the Nutrition Facts panel, handling statements, and the SHI label to be useful and necessary labeling features. Based on the focus group findings, we do not recommend any changes to the Nutrition Facts panel, handling statements, and the SHI label.

#### *Preparation Instructions*

- Z Some participants read preparation instructions when shopping for meat, poultry, and egg products, and many participants refer to them when preparing these products at home, especially when preparing packaged products for the first time. Participants find preparation instructions most useful for frozen and refrigerated entrees/dinners, dehydrated products, and egg products.
- Z Although some participants support uniform guidelines for preparation instructions, others do not think such guidelines are necessary. They believe companies already provide appropriate and useful information and that individual companies should decide what information to provide and in what format.
- Z The focus group findings suggest that consumer demand is insufficient to warrant developing and implementing uniform guidelines for preparation instructions at this time.

#### *Labeling of NRTE Products*

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*Consistent with our recommendations from the previous study, we again recommend that FSIS consider the costs and merits of requiring cooking statements/logos on NRTE products to convey that cooking for safety is required.*

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- Z Most participants like the use of cooking statements (e.g., “Cook Thoroughly”) in conjunction with cooking logos on NRTE product labeling. These findings are consistent with the findings from the previous focus group study we conducted for FSIS on labeling of NRTE products (Cates, Carter-Young, and Gledhill, 2001). Participants in both studies agree that cooking logos would be especially useful for consumers who speak English as a second language.
- Z These findings suggest the need for improved labeling of NRTE products. Consistent with our recommendations from the previous study, we again recommend that FSIS consider the costs and merits of requiring cooking statements/logos on NRTE products to convey that cooking for safety is required.
- Z Many participants support regulations requiring preparation instructions on the labeling for all NRTE meat, poultry, and egg products. They think that preparation instructions are necessary on NRTE products so consumers safely prepare the product. This is somewhat inconsistent with participants’ comments earlier in the discussion that preparation instructions are only somewhat useful for raw meat and poultry.

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*Although some participants support mandatory preparation instructions for all NRTE meat, poultry, and egg products, others do not. Hence, there is no consensus among participants regarding FSIS's role in this matter.*

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- Z Participants who do not support mandatory preparation instructions believe that it is manufacturers' responsibility, not the government's, to provide instructions on how to properly prepare and cook the product. Furthermore, they think that companies already do a good job of providing preparation instructions, so government regulations are unnecessary.
- Z Although some participants support mandatory preparation instructions for all NRTE meat, poultry, and egg products, others do not. Hence, there is no consensus among participants regarding FSIS's role in this matter.

*Food Product Dating*

- Z Most participants check product dates before purchasing meat, poultry, or egg products, and many check the date again before cooking or preparing the product. Participants find product dates most useful for refrigerated entrees/dinners, processed products, raw meat and poultry, and egg products.
- Z Although many participants rely on product dates, most find the use of different dates confusing (because some products have a use-by date and others have a sell by-date). Participants would like to see a universal dating system adopted in which products display the same date, preferably a use-by date.
- Z Some participants do not understand how product dates are determined and are unsure whether product dates are verified for accuracy.
- Z Most participants support mandatory product dating for all meat, poultry, and egg products to ensure product safety. Several participants are opposed to mandatory product dating; they think manufacturers should decide to provide this information.
- Z These findings suggest the need for more consistent dating of products. We recommend that FSIS consider the costs and merits of requiring product dating for all meat, poultry, and egg products, preferably a use-by date.
- Z We also recommend that FSIS consider implementing a consumer education campaign on product dating through the general media. We suggest that FSIS educate consumers on how product dates are determined and how they can use product dates in making storage decisions at home.

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*We recommend that FSIS consider the costs and merits of requiring product dating for all meat, poultry, and egg products, preferably a use-by date.*

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*Labeling of Irradiated Meat and Poultry Products*

- Z Many participants are unaware of irradiated meat and poultry products and are unsure of the safety of irradiated products given their limited knowledge.

- Z Participants consider irradiation and pasteurization to be two different processes; hence, they consider it misleading to label irradiated meat and poultry products as “pasteurized.” These findings concur with FSIS’ current belief; that is, labeling statements or claims for irradiated products that include the term “pasteurization” have the potential for creating consumer confusion.

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*Some participants support special allergen labeling, while others think it is consumers’ responsibility to select products they can safely consume. Hence, there is no consensus among participants regarding FSIS’s role in allergen labeling.*

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#### *Labeling of Products with Possible Allergens*

- Z Most participants would like to see the source of the ingredient listed next to the ingredient itself in the ingredients statement (e.g., whey [milk] and semolina [wheat]). They think this information would be useful to consumers with food allergies. Several participants think that listing only the ingredient is sufficient; they believe that it is consumers’ responsibility to read and understand the ingredients statement.
- Z About half of the participants support mandatory allergen statements on product packaging (e.g., “May Contain Allergens”) to ensure the safety of consumers with allergies. Other participants think that such regulations are unnecessary and that it is consumers’ responsibility to read the ingredients statement to check for possible allergens. Some doubt the usefulness of such generic statements.
- Z Participants are apathetic about a toll-free telephone number or web site consumers could access for allergen information.
- Z Some participants support special allergen labeling, while others think it is consumers’ responsibility to select products they can safely consume. Hence, there is no consensus among participants regarding FSIS’s role in allergen labeling. Participants prefer source labeling to the use of allergen statements.

# References

- Cates, S.C., H.L. Carter-Young, and E.C. Gledhill. April 2001. "Consumer Perceptions of Not-Ready-to-Eat Meat and Poultry Labeling Terminology." Prepared for the U.S. Department of Agriculture, Food Safety and Inspection Service, Labeling and Additives Policy Division.
- Fern, Edward F. 1982. "The Use of Focus Groups for Idea Generation: The Effects of Group Size, Acquaintanceship, and Moderator of Response Quantity and Quality." *Journal of Marketing Research* 19(February):1-13.
- Food Safety and Inspection Service, United States Department of Agriculture. *Code of Federal Regulations, Title 9, Part 200 to End*. Washington, DC: Office of the Federal Register National Archives and Records Administration, revised as of January 1, 2000.
- Greenbaum, Thomas L. 1988. *The Practical Handbook and Guide to Focus Group Research*. Lexington, MA: D.C. Heath and Company.
- Greenbaum, Thomas L. 2000. *Moderating Focus Groups*. Thousand Oaks, CA: SAGE Publications, Inc.
- Kruger, Richard A. 1988. *Focus Groups: A Practical Guide for Applied Research*. Newbury Park, CA: SAGE Publications, Inc.
- Teague, Jackqueline L., and D.W. Anderson. 1995. "Consumer Preferences for Safe Handling Labels on Meat and Poultry." *The Journal of Consumer Affairs* 29(1):108-127.
- USDA, FSIS. December 20, 2001. "Irradiation Q's and A's" <[http://www.fsis.usda.gov/oppde/larc/Irradiation\\_Q\\_&A.htm](http://www.fsis.usda.gov/oppde/larc/Irradiation_Q_&A.htm)>. As obtained on January 17, 2002.