



# Communicating About Food Safety The Psychology of Food Risks

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# Food Risks are Different

- The psychology of food risks is informed by studies of other hazards, but . . . Food is special.
- "Dis-moi ce que tu manges, je te dirai ce que tu es."  
[Tell me what you eat and I will tell you what you are]  
- Anthelme Brillat-Savarin (1826)



# You Are What you Eat

- We literally (and figuratively) internalize the risks we perceive related to food and drink.
- As a result, potential food hazards are often seen as objects of disgust
  - Characterized by revulsion at the prospect of oral incorporation of an offensive and contaminating object.
  - For many, consuming impure foods results in an “unclean body” and/or an “unclean spirit”.



# Food Carries Meaning

- Food carries distinct religious, symbolic, and cultural meanings that set it apart from other concerns.
  - Feasting, fasting, and the ritual preparation and consumption of certain foods, and taboos or restrictions regarding the touching or eating of other foods all play crucial roles in religious and cultural practices and identities.
  - People often use their food choices to represent and communicate who they are as individuals, their roles in society, or to express their political or ideological beliefs.
  - Giving or sharing food with other is symbolically, psychologically, and emotionally linked with love, nurturing and intimacy, and is considered crucial to creating and maintaining bonds between people.

## Poison Carries Stigma

- Stigmas are attached to being accused of unsanitary practices, giving or purveying spoiled, unclean, or unsafe foods to others, or for making others ill.
  - *As a result, some people may deny, or refuse to take responsibility for errors of omission or commission that result in these outcomes.*
- So, risk communicators must be tactful in how they present information dealing with these issues.
  - At the same time, they may also want to use the aversion people have toward being stigmatized as a motivation to change behaviors.

## One Man's Meat

- What's considered food in one culture can be an object of disgust in another.



# Cuy



# Cuy





# Casu Marzu (Maggot Cheese)



## Kopi Luwak (coffee)

- How to make the most expensive coffee in the world



## Kopi Luwak (coffee)



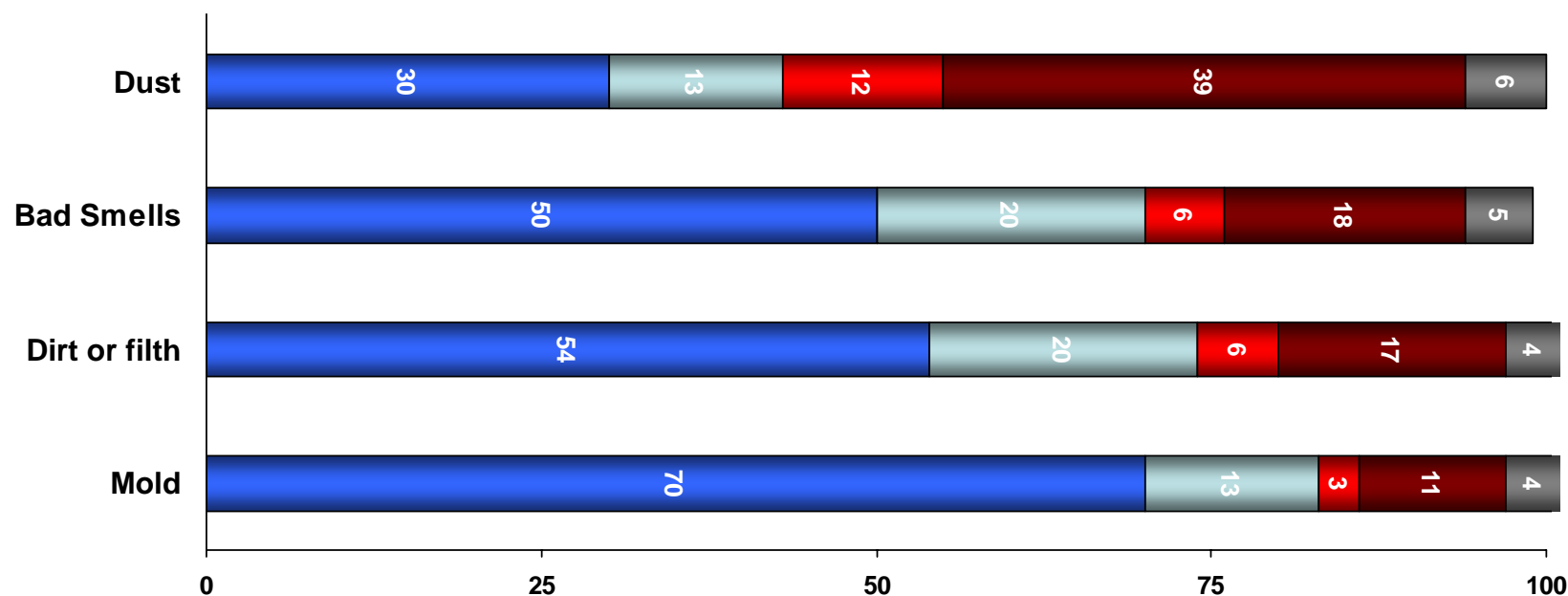
# Kopi Luwak (coffee)



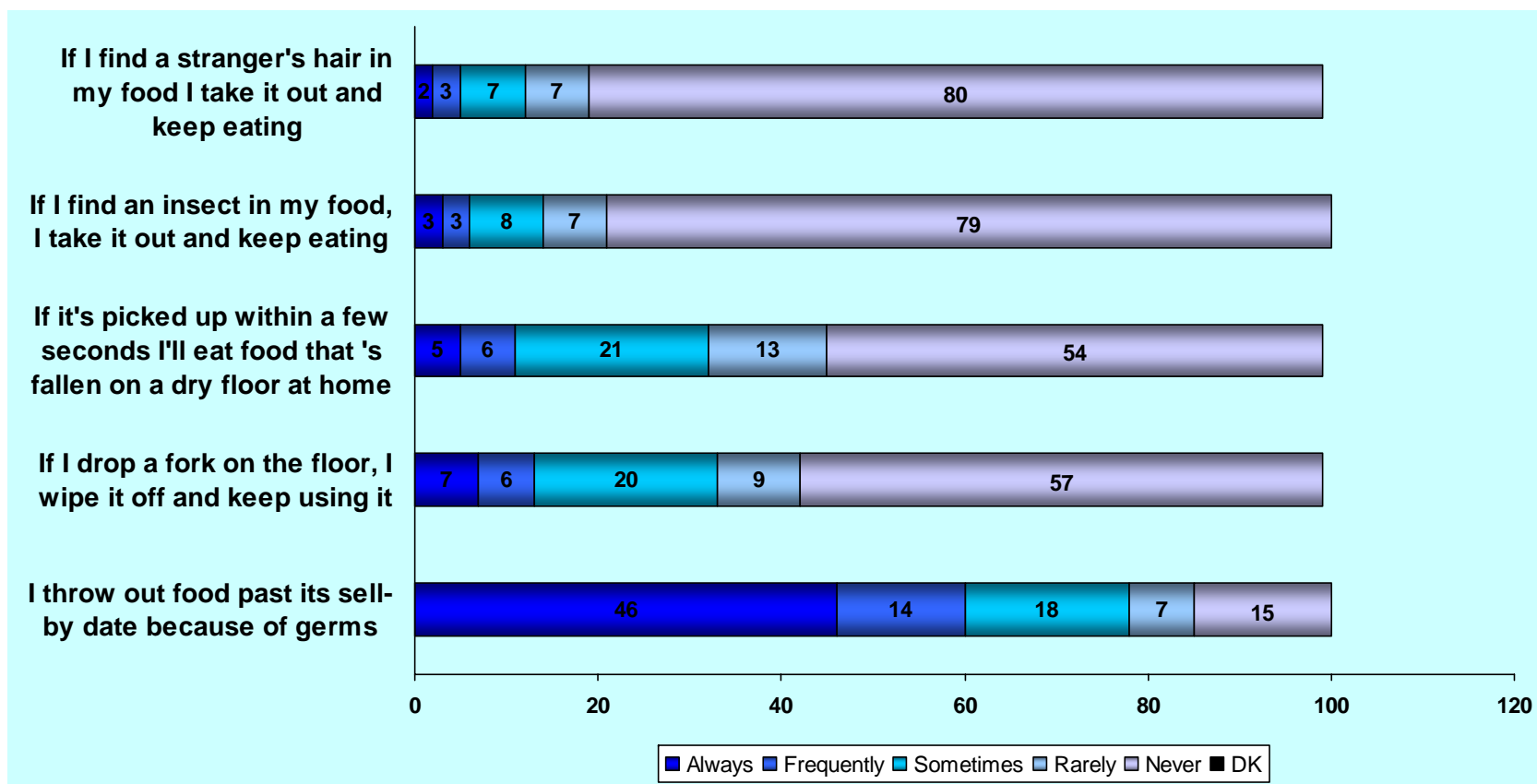
# Food Risks are Invisible

We use other indicators to decide if “germs” are present

- Most (83%) believe that mold is a good indicator that germs are present
- Nearly three-quarters believe that dirt, filth, and bad smells indicate the presence of germs
- 43% believe that dust is a good indicator of germs.



# Germ Phobia is Prevalent



# Sympathetic Magic

- Beliefs in “sympathetic magic” prevail even in modern societies.
  - Foods that come into contact with or are associated with objects or substances that are seen as “dirty” become stigmatized, even if they have been made clean.
  - The cellophane effect
- “Psychological contagion” also works in a positive sense.
  - Foods can take on desirable qualities simply because they were made by a loved one

# People Know Little about Agriculture

- Fewer than 2% of Americans live on a farm.
- People who live in cities say they know more about how food is grown and produced.
- Few have any sense of how the food system has changed over the last few decades.
- People don't know what they don't know.





# Food Safety Education is Broken

- Fewer people cooking majority of meals at home
- Fewer cooking meals from scratch
- The decline of “home economics”
- “ready to eat”, “heat and serve”, “triple washed”
  
- Good food safety practices rarely shown or emphasized on televised cooking shows
- Recipes often have vague cooking instructions
- Recipes rarely include instructions for proper cooling, storage, or reheating.



# Lack of Feedback Loops

- Foodborne illness is usually blamed on someone else.
  - Few believe that they have made themselves ill.
  - Fewer believe that it is likely that they have made someone else ill.
- Many also believe that symptoms of foodborne illness become evident shortly after eating a tainted food.
- As a result, people don't connect their actions with the consequences.
  - Problem for home cooks
  - Problem for food service

# The Nature of the Risk Matters

- What kind of food?
- What contaminant?
- What action is necessary?
- Who is responsible?
- How serious are the consequences?



# Who has Control?

- Who is perceived as having responsibility for creating and for solving the problem?
- Consumer?
- Farmer?
- Processor?
- Retailer?
- Government?
  - Blame is a powerful force
  - Errors of Omission
  - Errors of Commission



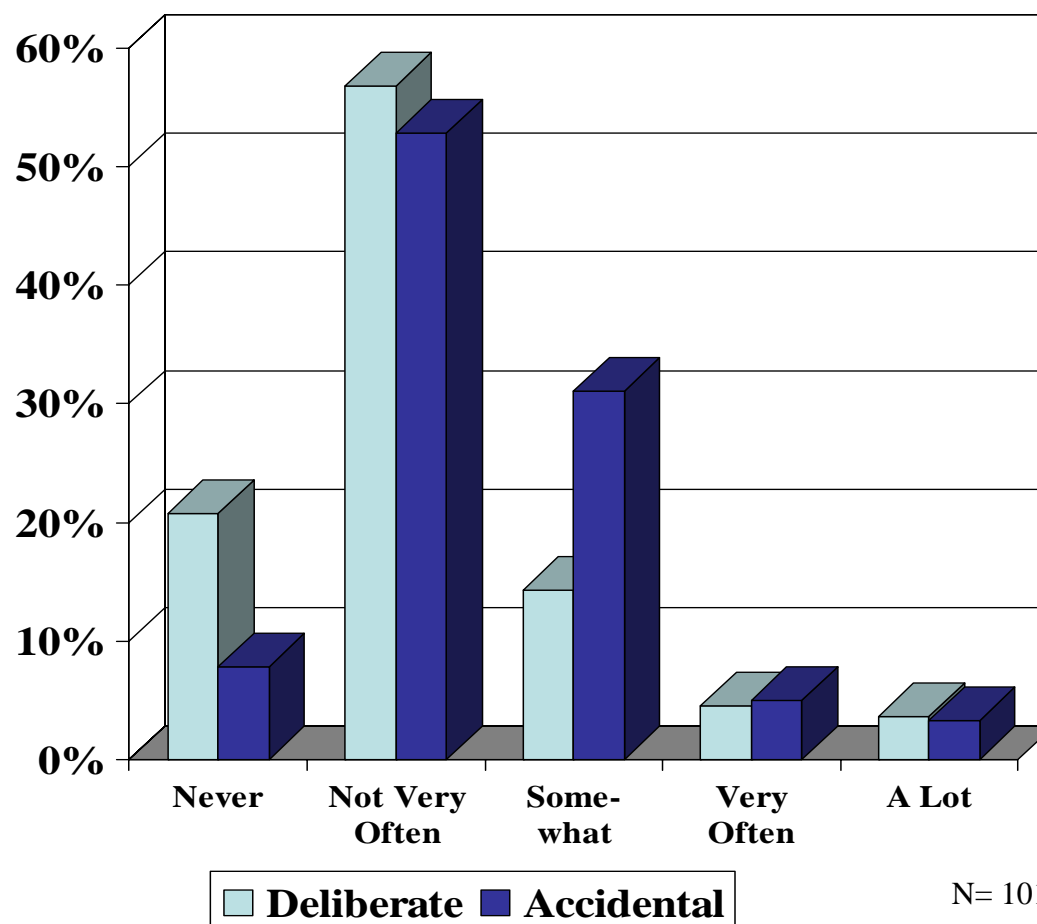
## Accident or on Purpose?

- Accidental contamination is perceived as a *loss* of control
  - The assumption is that control will be regained
- Purposeful contamination is perceived as a *lack* of control.

# How Often is Food Unsafe to Eat?

How often would you say that products that are in your local grocery store are unsafe to eat because of {accidental errors}/ {deliberate tampering} that occurs somewhere in the food supply chain?

- Deliberate food tampering:
  - 78% “not very often” or “never”
    - 22% at least ‘somewhat often’
- Accidental food contamination:
  - 61% “not very often” or “never”
    - 39% at least ‘somewhat often’

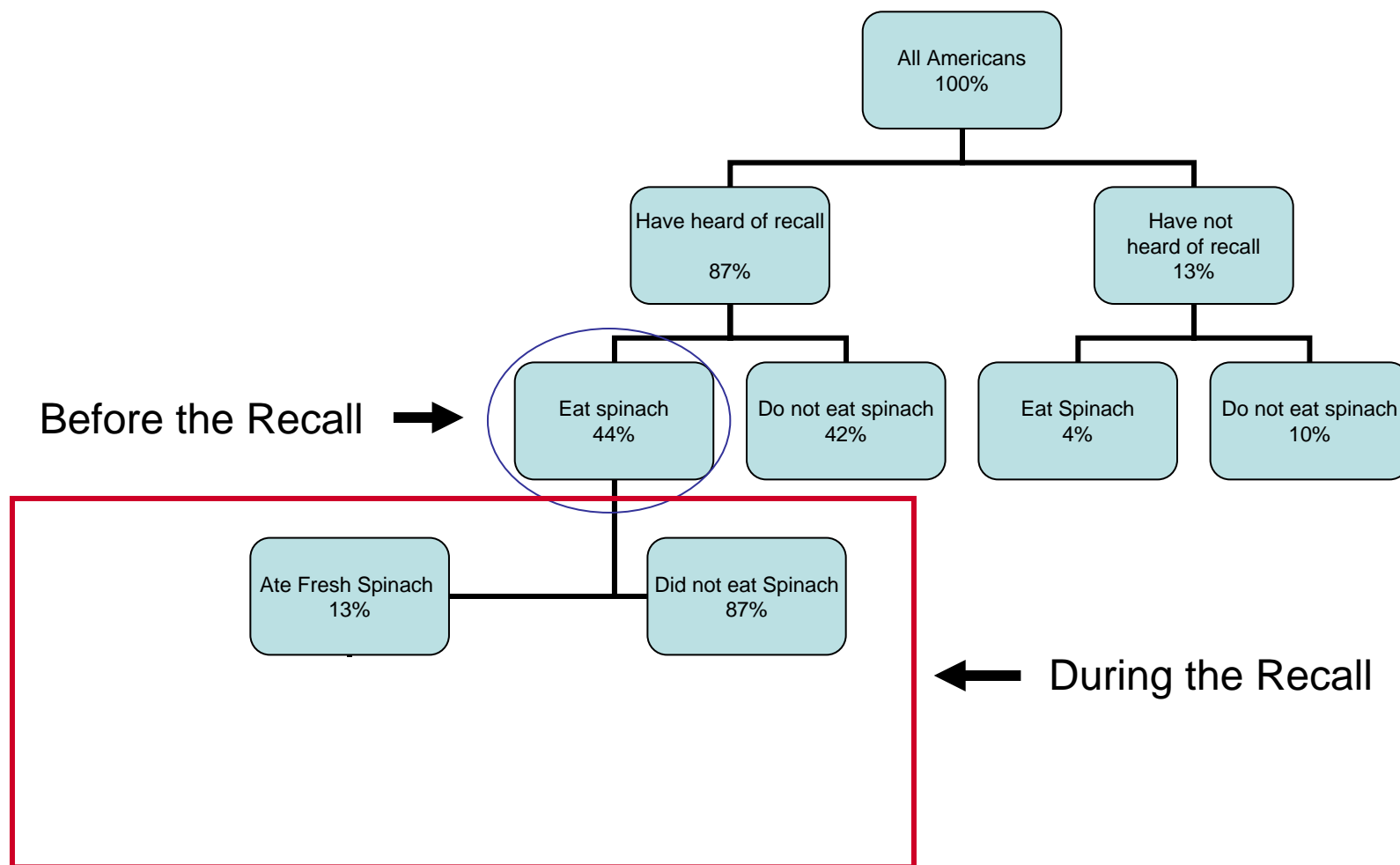


# Knowledge-Behavior Gap

- Knowing what to do is a necessary but not sufficient condition for action.
  - Training people to engage in safe food preparation procedures doesn't guarantee that they will put those practices into action.

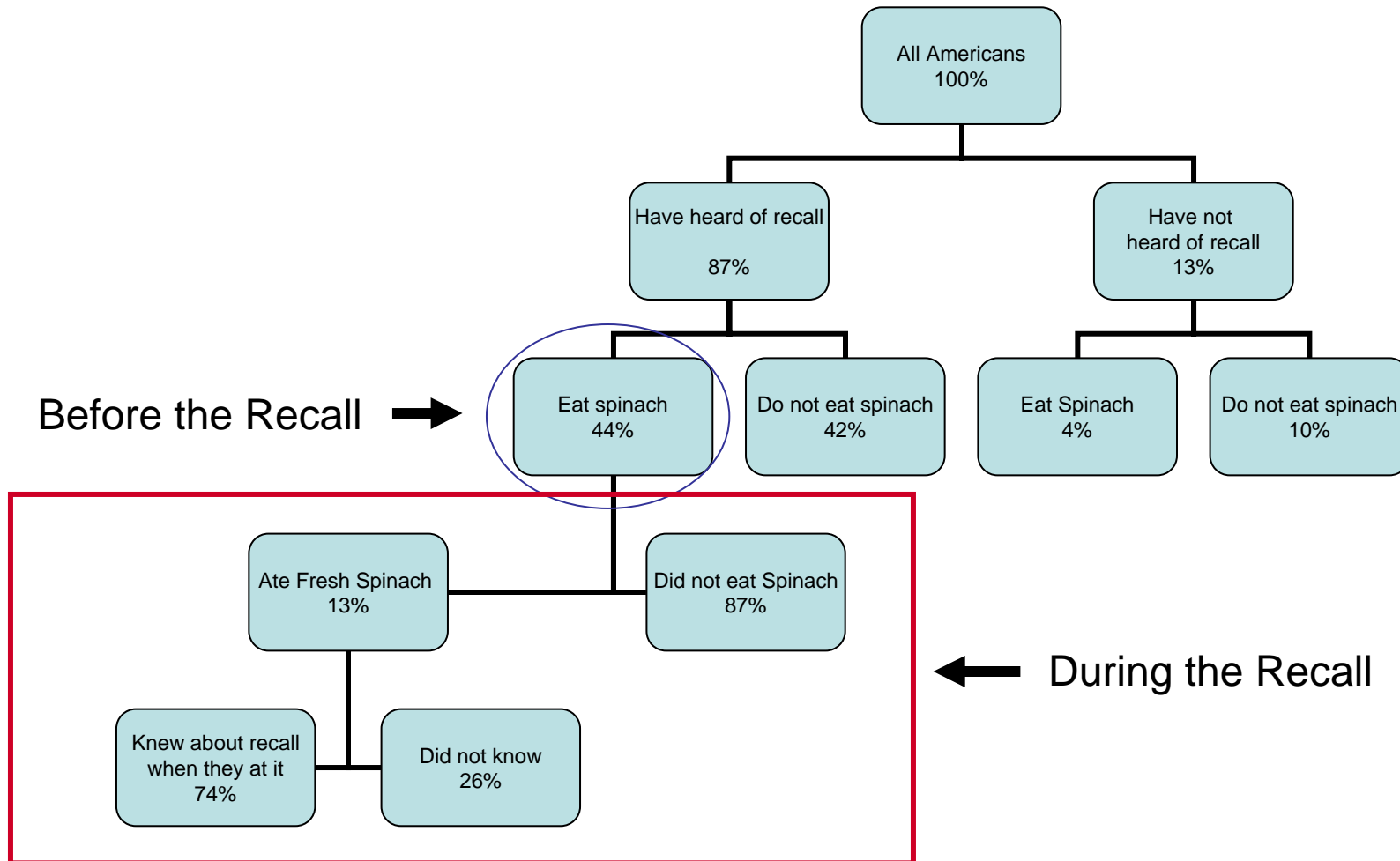


# Consumption of spinach *during* the recall



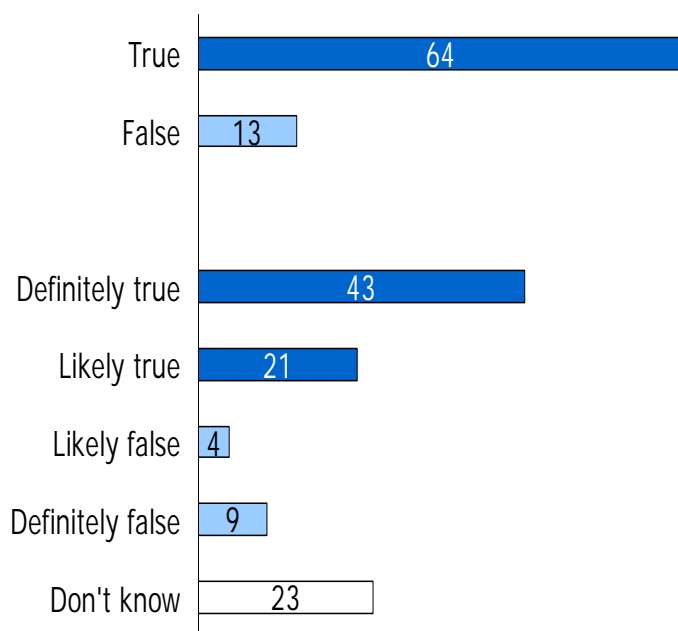


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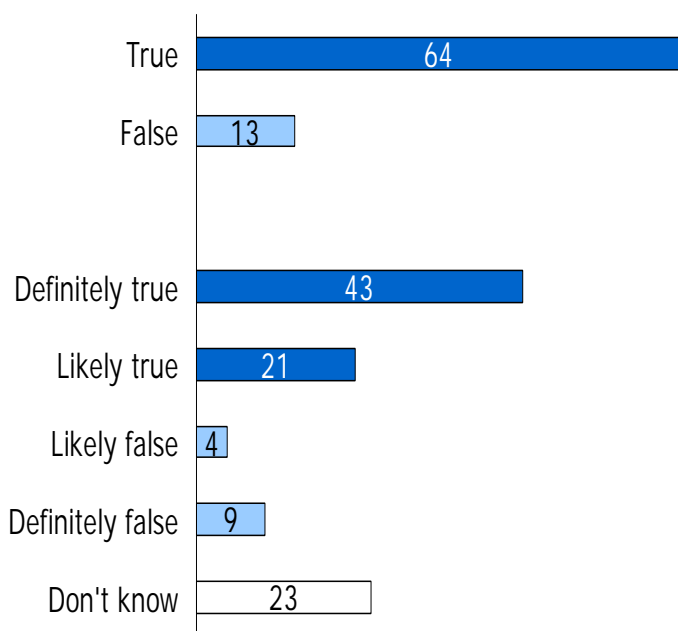
# Mental Models Matter

## The Bird Flu Virus is Present in the Uncooked Meat of an Infected Chicken

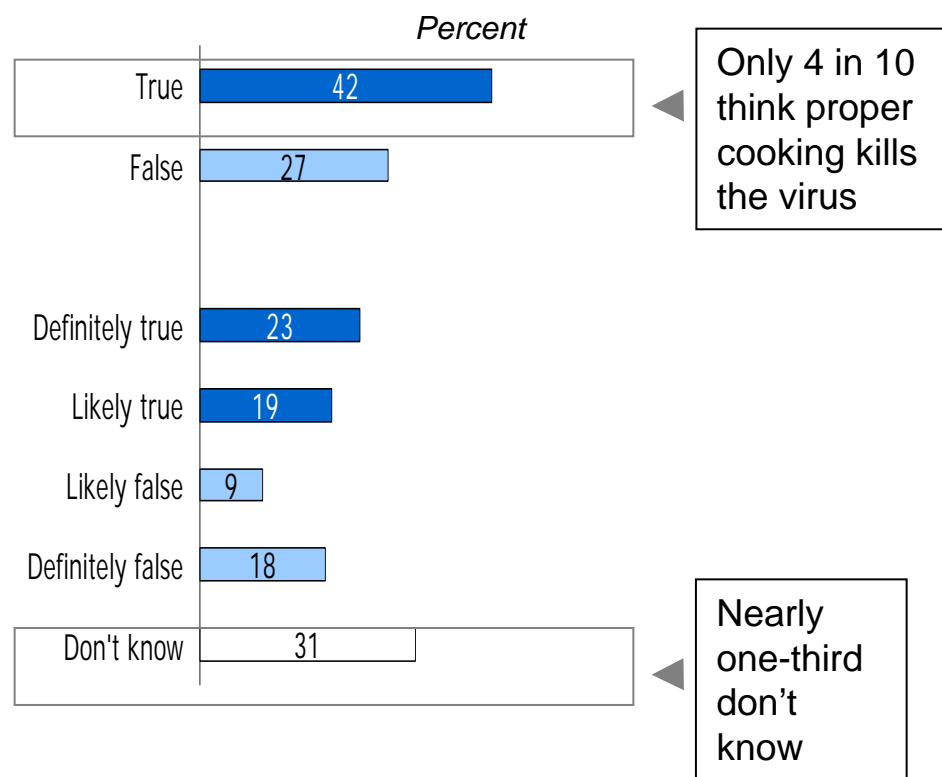


# Mental Models Matter

**The Bird Flu Virus is Present in the Uncooked Meat of an Infected Chicken**



**Cooking Chicken to Recommended Temperatures Kills the Bird Flu Virus**



# Mental Models Matter

- Microwaving
- Refrigeration



# News Story Recognition

Heard it

During the recall, no fresh spinach was considered safe to eat.	64%	
During the recall, properly cooking fresh spinach wasn't enough to make it safe to eat.	43%	
Since E. coli can be absorbed into the leaves of spinach, no amount of rinsing can wash the E. coli from the spinach.	26%	
Because of modern farming methods, large-scale food contamination is unavoidable.	23%	
It's safer to buy produce from local farmers than national companies.	22%	
All the bags that had contaminated spinach were processed on one day in one processing plant.	20%	
Because of poor government oversight, this type of contamination was bound to happen.	18%	
The government recalled all the spinach to punish spinach farmers.	12%	



# News Story Recognition

	Heard it	True
During the recall, no fresh spinach was considered safe to eat.	64%	<b>57%</b>
During the recall, properly cooking fresh spinach wasn't enough to make it safe to eat.	43%	<b>59%</b>
Since E. coli can be absorbed into the leaves of spinach, no amount of rinsing can wash the E. coli from the spinach.	26%	<b>56%</b>
Because of modern farming methods, large-scale food contamination is unavoidable.	23%	<b>48%</b>
It's safer to buy produce from local farmers than national companies.	22%	<b>46%</b>
All the bags that had contaminated spinach were processed on one day in one processing plant.	20%	<b>33%</b>
Because of poor government oversight, this type of contamination was bound to happen.	18%	<b>36%</b>
The government recalled all the spinach to punish spinach farmers.	12%	<b>12%</b>



# The Audience Matters

- There is no such thing as “the public”
  - We typically have multiple audiences
- Advertisers engage in “market segmentation” to sell products
- Different audiences have different needs, interests in, and abilities to understand and act on food safety messages
- Similar market segmentation practices are needed when communicating about food safety

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