

Persuasive Communication: Food Selection / Handling

Christine M. Bruhn, Ph.D.
Director, Center for Consumer Research
University of California, Davis

Communication Goal:

- **Choice consistent with personal values**
- **Aware of science-based information relative to risk and benefits**

Communication: A Two Way Process

- Listen**
- Understand Concerns**
- Assess knowledge**
- Determine information sources**
- Develop / Deliver Message**
- Evaluate Effectiveness**

Three Examples

- **General Audience**
 - **Safe handling of produce**
- **At Highest Risk for Foodborne Illness**
 - **Safe handling in general**
- **Controversial Topic**
 - **Safety enhanced product**

Consumer Handling of Fresh Fruits and Vegetables: Goals

- **Identify consumer handling practices**
- **Evaluate effectiveness of washing method**
- **Develop scientific-based consumer handling recommendations**
- **Evaluate guidelines for consumer understanding and usage**

Consumer Behavior Assessment

Focus Groups – current practices & attitudes

Mail Survey – quantify information

- **Nationwide, 2000 consumers**
- **Handling and washing questions**
- **Convenient information sources**
- **Demographics**

Focus Groups – response to educational brochure

At the Supermarket

1. In the grocery cart, **separate** fruits and vegetables from meat, poultry, and fish to avoid cross-contamination.



2. When bagging fresh fruits and vegetables to take home from the supermarket, put fresh produce and meat, poultry, and fish in **separate bags**.



Home Storage

In general, store fresh fruits and vegetables in the refrigerator produce drawer or on a refrigerator shelf.

Store meat, poultry, or fish in the clean meat drawer or on a tray on the bottom shelf **below** other refrigerated foods. This prevents meat juices from dripping on other foods.

Prepare the Kitchen



1. Clean the sink with hot soapy water or cleanser **before** and **after** washing and preparing fresh fruits and vegetables.

2. If possible, use a **different** cutting board and preparation area for meat/poultry/fish and fresh fruits and vegetables.

Always wash cutting boards and preparation areas **before** and **after** food preparation.



Wash especially well between the preparation of meat/poultry/fish and the preparation of foods that will be eaten without cooking.

3. Washing with detergent removes soil and food, but only some bacteria. **For additional safety, always sanitize cutting boards and food preparation areas** after cutting meat, poultry, fish or any produce item with visible dirt, or that grows on or in the ground. Choose **one** of the following methods:



a. Pour boiling water over the clean wood or plastic boards for **20 seconds**.

b. Rinse clean wood and plastic cutting boards with a solution of 1 teaspoon chlorine bleach in a quart (4 cups) of water.

c. Place plastic boards in dishwasher and run, using the normal cleaning cycle.



4. **Always wash knives** after cutting meat, poultry, or fish with hot soapy water before cutting fresh fruits and vegetables or use different knives for cutting meat products and fresh produce.

Wash Your Hands

Always wash hands with hot soapy water for at least 20 seconds **before** and **after** handling fresh fruits and vegetables.



Wash ALL Fruits and Vegetables

(including organically grown, Farmer's Market and homegrown produce)



1. Wash fruits and vegetables just before cooking or eating.

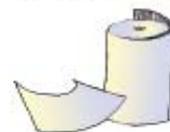
2. Wash under running water.

3. When possible, scrub fruits and vegetables with a clean scrub brush or with hands.



4. For **melons**, scrub the rind with a brush under running water before cutting or peeling. This removes bacteria before it is spread by the knife when slicing.

Sanitize the brush by putting it in the dishwasher, placing it in boiling water for 20 seconds, **or** rinsing it in bleach solution. (As described in points 3a, b, and c)



5. Dry fruits and vegetables with **disposable** paper towels.

6. **Do not use antibacterial soaps or dish detergents** to wash fresh fruits and vegetables because soap or detergent residues can remain on the produce. The FDA has not evaluated the residues which could be left from soaps and detergents.*



Distribution

- **Cooperative Extension Offices**
 - **On-line**
 - **Master Gardeners**
 - **Education Programs**
- **Referenced in media interviews**
- **Offered to Fight BAC**
- **Updated and Reprinted in 2008**

**USDA
Funded
multistate
Research
project**

2003



FS - Ed.
**Food Safety Materials
for Persons Living with
HIV/AIDS**

Take Control: A Hands-on Approach to Food Safety for Persons Living with HIV/AIDS

Order this booklet by completing the Washington State University order form at the bottom of this page, or view and print the booklet at the following Web site: <http://foodsafety.wsu.edu>

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Food Safety for High Risk Populations—A Continuing Education Course for Health Care Providers

Obtain more information about this continuing education course by contacting Val Hillers, PhD, RD, Extension Food Specialist, Department of Food Science and Human Nutrition, Washington State University, Pullman, WA at the following email address: hillersv@wsu.edu

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Take Control



A Hands-on Approach to:
**Choosing Safe Foods,
Shopping, Handling,
Preparing & Storing Food**
for Persons Living with HIV/AIDS





Eating Away from Home

People infected with HIV are more likely to contract a foodborne illness than other people.

Eating out can be a wonderful experience, but... don't take any chances!

Here are a few valuable tips:

- It's OK to ask how a particular dish is made.
 - ✓ Ask whether it contains raw ingredients such as eggs, meat, or fish.
 - ✓ Ask how the meat is cooked.
 - ✓ Remember to order food *well done*.
- If meat is served rare or bloody, send it back to the kitchen for further cooking.
- Fish should be flaky, not rubbery when you cut it.
- Order fried eggs cooked on both sides until both the white and the yolk are firm. Scrambled eggs should be cooked until they are not runny.

For added safety:

Order your meal from the menu. Avoid salad bars and buffets because of the risk others have contaminated the food when they dished up their plates.

If you bring leftover food home, refrigerate it immediately. If you order take-out food, refrigerate or eat it within 2 hours. (*Do not keep food out of the refrigerator longer than 2 hours*). Discard leftovers after 4 days. Bacteria grow quickly at room temperature.

When eating away from home choose...

- **Soft cheeses made with pasteurized milk.**

Why? Soft cheeses such as Feta, Brie, Camembert, blue-veined cheese, queso blanco, queso fresco, and Panela are sometimes made with raw, unpasteurized milk and may contain harmful bacteria.



- **Hot dishes with pre-cooked seafood or smoked fish** (instead of seafood served cold).

Why? Some smoked fish is NOT heated to high enough temperatures to kill bacteria. Pre-cooked seafood may be contaminated after cooking. Long storage times allow bacteria, such as *Listeria*, to grow.

- **Hot dogs heated to steaming hot** (avoid hot dogs that are served cold).



Why? Hot dogs can become contaminated AFTER processing. During the long storage time, *Listeria* can grow to high levels. Reheating kills *Listeria*.

- **Grilled sandwiches in which the meat is heated** (instead of sandwiches with cold deli meat).

Why? Deli meat and lunch meats can become contaminated after processing. During the long storage time, *Listeria* can grow to high levels. Reheating kills *Listeria*.

- **Fully cooked shellfish** such as steamed clams, mussels, and fried oysters (instead of raw or undercooked shellfish).

Why? Harmful bacteria and viruses may be in raw or undercooked seafood.



Avoid the same risky foods you would avoid at home. Make sure foods are prepared as safely as if you were at home.

- **Fully cooked fish** that is firm and flaky (instead of raw or under-cooked fish, such as sushi or sashimi).

Why? Harmful germs are found in raw or undercooked seafood.

- **Fully cooked eggs** so that the white and the yolk are firm.

Why? Eggs may contain *Salmonella* inside or outside the eggshell. Cooking or pasteurizing eggs kills *Salmonella*.

When foods that contain eggs are sold in grocery stores, it is almost certain that pasteurized (heated) eggs were used to make the food. Sometimes these foods are made with raw eggs when prepared at restaurants or at home. Foods that may contain raw or undercooked eggs include Hollandaise-type sauces, Caesar salad dressing, and some desserts. Ask your server if you suspect a food may have been made with raw eggs.

- Dishes that **do not have raw sprouts.**

Why? The seed and the sprout may contain *E.coli* O157:H7 or *Salmonella*. Washing sprouts does NOT make them safe to eat.

Many restaurants put raw sprouts on salads and sandwiches. When ordering, tell your server not to include raw sprouts with your meal. Cooked sprouts are okay to eat.

Distribution

- Available through Cooperative Extension
- Referenced in USDA Food Safety Educator

Safe production includes activities at each stage of production from farm to table

Production



Processing



Pathogen killing step



Final preparation
and cooking

On-farm sanitation, safety of animals' food and water
biosecurity, probiotics, and other
"Good Agricultural Practices"

Plant sanitation, quality control
HACCP, inspection and other
"Good Manufacturing Processes"

**Pasteurization, retort canning,
irradiation**

Consumer education,
Foodhandler certification,
Restaurant inspection



Food Irradiation

- Exposes foods to measured levels of energy
- Can reduce microbes, replace fumigants, extend shelf life
- Food is like fresh
- Considered safe by scientific community
- Approved for meat, poultry and some other foods
- Under review for leafy greens and other foods

Organizations Opposing Food Irradiation

- **Dangerous chemicals are formed**
- **Nutritional value is destroyed**
- **Will cover up filthy handling operations**
- **All people have to do is cook the product**

Food irradiation: Potential annual public health benefits by specific pathogen

Pathogen	Prevented cases	Prevented hospitalizations	Prevented major complications	Prevented deaths
<i>E. coli</i> O157:H7 and other STEC	23,000	700	250 HUS cases	20
<i>Campylobacter</i>	500,000	2,600	250 GBS cases	25
<i>Salmonella</i>	330,000	4,000	6,000 RA cases	140
<i>Listeria</i>	625	575	60 miscarriages	125
<i>Toxoplasma</i>	28,000	625	100-1,000 cases Cong. toxo	94
Total	881,625	8,500	6,660 major illnesses	352

R. Tauxe, CDC. 2001

Consumer Response

- **When people hear science-based information about irradiation**
 - **60%-99% will select irradiated meat/poultry**
- **When people only hear negative information**
 - **10-15% will select irradiated meat/poultry**
- **Parents with young children are least likely to select irradiation protected meat/poultry**
- **When negative information is countered, interest in buying increases**

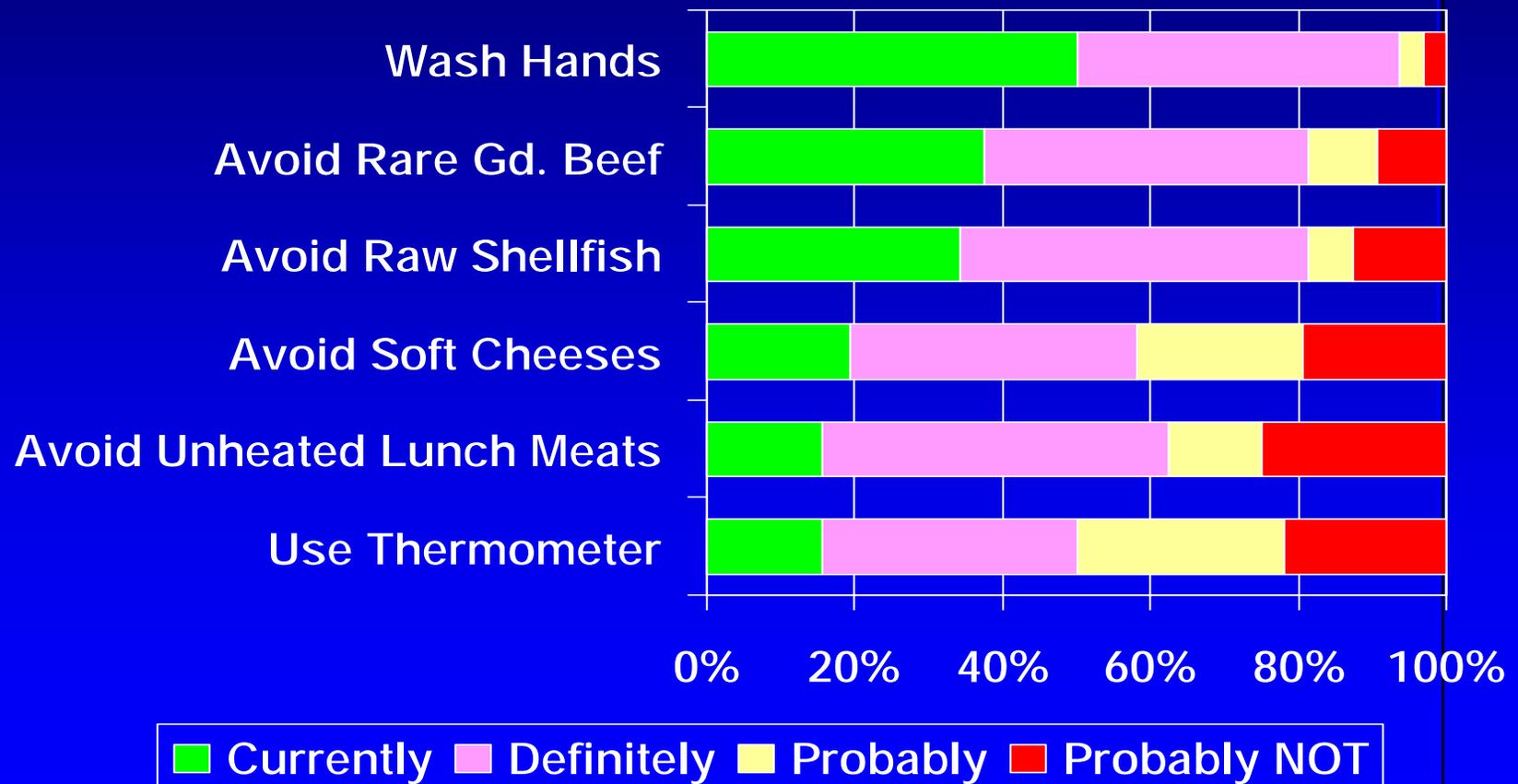
Extending the Message

- Community meetings / Trainings
- Handouts
- Web messages / resources
- MEDIA
 - Radio
 - Newspaper / magazines
 - Television

Evaluating Effectiveness

- Interest in educational material
- Reported behavior
- Observed behavior
- Changes in foodborne illness data
- Marketplace purchases

Practices Persons With HIV Will Follow



Barriers to Safe Handling

- Messages not heard by everyone
- Program funding is targeted to specific groups and is short term
- People must take the initiative and seek information
- People think they are already knowledgeable
- Time delay between unsafe behavior and getting sick

Barriers to Safe Handling

- **People don't follow recommendations**
 - **Optimistic biases – doesn't affect them**
 - **Too busy**
 - **Not convenience – thermometer**
 - **Not necessary**
 - **Taste preferences**

Food Safety Education Today

- Education focuses on 4 - 6 behaviors
- Guidelines are clear
- Recommendations are specific by age and health condition
- Messages are presented nationwide, but consumers don't know all the specifics
- People don't follow all the recommendations
- ***Education alone is not sufficient***

Needs

- Sustained educational program
- Endorsement and encouragement by physicians, health providers, and other trusted parties
- Models of appropriate behavior
- Timely regulatory approval for innovative technologies
- Regulatory oversight of false or misleading claims