HEALTH COMMUNICATION “DONE RIGHT”:
HOW EFFECTIVE MESSAGING CAN IMPACT RISK PERCEPTIONS AND MOTIVATIONS

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“The risks that upset people are completely different than the risks that kill people.”
Scientists focus on danger – consumers on the ‘whole cow’
Irradiation back on the table

Food-related illnesses renew calls for controversy to continue

By Jim Downing - Bee Staff Writer

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Story appeared in BUSINESS section, Page D1

Meat and milk from cloning are safe, 2 FDA scientists say

The study, which deems labeling unnecessary, signals the agency's receptiveness to formally approving such food.

Quote

"Most Americans find cloning animals to be a pretty scary proposition."

Carol Tusek Foreman,
Consumer Federation of America

Dirty birds

Even 'premium' chickens harbor dangerous bacteria

If you eat undercooked or mishandled chicken, our new tests indicate, you have a good chance of feeling miserable. CR's
"In fact, probably getting out of your automobile and walking into the store to buy beef, has a higher probability than you'll be hit by an automobile than ... the probability of any harm coming to you from eating beef."

U.S. Agriculture Undersecretary
Japanese import ban on U.S. beef
January, 2006
Risk communication defined

An open, two-way exchange of information and opinion about risk leading to better understanding and better risk management decisions.

Source: USDA, 1992
Risk communication goals

- Disclose information about hazards to the potential victims.
- Enhance public protection via information related to risk reduction.
- Educate decision makers about public concerns and perceptions.
- Tailor communication so it takes into account the emotional response to an event.
- Empower audience to make informed decisions.
- Prevent negative behavior and/or encourage constructive responses to crisis or danger.
HOW DO WE DO COMMUNICATION “RIGHT”?
One of the primary goals of risk communication should be:

“to make the risk data come alive.”

Covello (1988, p. 15)
Some tips on

MAKING THE DATA COME ALIVE
Tip 1. Threat

COMPONENTS:

A. SEVERITY

B. SUSCEPTIBILITY

• IN WORDS THEY WOULD USE
• USING METAPHOR OR ANALOGY
• AT A 4TH – 6TH GRADE LEVEL
Tip 2. Use Graphics

• SHOW THE AUDIENCE WHAT THE DATA MEANS

![Bar chart showing cases per 100,000 from 2006 to 2015 with a CDC target of 13 cases in 2015.](chart.png)
Numbers Condition (Stone et al., 1997)

**STANDARD TOOTHPASTE**

Cost: $2.29
Number of people with gum disease in a given year (per 5,000 users):

30

**IMPROVED TOOTHPASTE**

Cost: ?
Number of people with gum disease in a given year (per 5,000 users):

15

How much would you be willing to pay for IMPROVED TOOTHPASTE?
Graphical-Asterisks Condition

STANDARD TOOTHPASTE
Cost: $2.29
Number of people with gum disease in a given year (per 5,000 users):
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *

IMPROVED TOOTHPASTE
Cost: ?
Number of people with gum disease in a given year (per 5,000 users):
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * *

How much would you be willing to pay for IMPROVED TOOTHPASTE?
Primary Findings of Stone, Yates, and Parker (1997)

- People paid more for the safer product when presented with risk information via graphical displays than via numerical displays.

- This finding held for asterisks, stick figures, and bar graphs.

- Later work showed that this “graphical effect” holds for other percentage risk reductions in addition to 50% (Schirillo & Stone, 2005).
Top Causes of Food Poisoning-Related Death

- Salmonella: 31%
- Listeria: 28%
- Toxoplasma: 21%
- Norwalk-like viruses: 7%
- Campylobacter: 5%
- E.coli O157:H7: 5%
- Other: 3%

Salmonella is a bacteria that can cause illness and death in animals.

Top Salmonella Outbreak Vehicles

- Eggs: 80%
- Other: 10.8%
- Chicken: 5.4%
- Beef: 2.2%
- Shrimp: 1.6%

Eggs are the #1 outbreak vehicle for Salmonella.
Tip 3. Communicate Efficacy

• You can do this!
  – Should do
  – Could do
• This works!
Five keys to safer food

**Keep clean**
- Wash your hands before handling food and often during food preparation.
- Wash your hands after going to the toilet.
- Wash and sanitize all surfaces and equipment used for food preparation.
- Protect kitchen areas and food from insects, pests, and other animals.

**Why?**
While most food-borne diseases are caused by bacteria, viruses, and parasites, food-borne illness can also be caused by food handlers who are sick but do not wash their hands properly. The hands of food handlers can transfer harmful bacteria to food and water, which can cause food-borne illness.

**Separate raw and cooked**
- Separate raw meat, poultry, seafood, and other foods from prepared foods.
- Use separate equipment and utensils for handling raw and prepared foods.
- Store food in containers to avoid contact between raw and prepared foods.

**Why?**
Raw food, especially meat, poultry, and seafood, and their juices, can contain dangerous microorganisms that may be transferred onto other foods during food preparation and storage.

**Cook thoroughly**
- Cook food thoroughly, especially meat, poultry, eggs, and seafood.
- Leave food at room temperature for more than 2 hours.
- refrigerate promptly all cooked and perishable food preferably below 5°C.
- Keep cooked food piping hot (more than 64°C) prior to serving.
- Use a food thermometer.

**Why?**
Proper cooking kills almost all dangerous microorganisms. Studies have shown that cooking food in temperatures of 70°C can help ensure it is safe for consumption.

**Keep food at safe temperatures**
- Do not leave cooked food at room temperature for more than 2 hours.
- Do not store food too long even in the refrigerator.
- Do not thaw frozen food at room temperature.

**Why?**
Microorganisms can multiply very quickly if food is stored at room temperature. By holding at temperatures below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped. Some dangerous viruses grow at temperatures between 0°C and 60°C.

**Use safe water and raw materials**
- Use safe water or treat it to make it safe.
- Select fresh and wholesome foods.
- Choose foods processed for safety, such as pasteurized milk.
- Use fresh fruits and vegetables, especially if eaten raw.

**Why?**
Raw materials, including water and food, may be contaminated with dangerous microorganisms and chemicals. Banish bad bacteria by selecting safe and wholesome raw materials and simple measures such as washing and peeling may reduce the risk.

Knowledge = Prevention
Baby Boomers and Food Safety

About 1 in 6 Americans will get food poisoning each year. Older adults are at an increased risk of serious complications from foodborne illness. A few simple steps can help keep the golden years pleasant for you or older adults you help care for.

What May Make You Sick?

Here's a look at some of the most common food pathogens that affect older adults and where they're found:

- **E. coli O157:H7**: Undercooked ground beef, unpasteurized milk and juices, contaminated raw fruits and vegetables, and water.
- **Campylobacter**: Unpasteurized milk, raw or undercooked meat, poultry, or shellfish.
- **Salmonella**: Raw or undercooked eggs, poultry, or meat.

Why Are You at Risk?

Older adults are at elevated risk for hospitalization and death from foodborne infections. Why?

- Medication side effects (like a weakened immune system).
- Changes in functioning of organs like liver and kidneys.
- Underlying chronic conditions (such as diabetes or kidney disease).
- Age-related changes to GI tract.

When in doubt, throw it out.

Dates printed on food labels indicate when items will no longer be at peak quality. Dates are not for safety. Here's what each one means:

- **Sell-by date**: Buy the product before this date. It is safe to eat after this date.
- **Use-by date**: This is the last date recommended for best flavor or quality.

To learn more visit www.fsis.usda.gov and search “product dating.”

Foods to Avoid:

- **Soft cheeses**: Made from unpasteurized milk (feta, brie, Camembert, blue-wine and gorgonzola)
- **Raw or undercooked meats, poultry, eggs, or seafood**
- **Unpasteurized milk**
- **Raw sprouts**
- **Rotten, slimy or smelly foods**
- **Hot dogs, deli meats, and lunchmeat meats** that have not been heated to steaming hot

Safety Tips:

- **Clean**: Clean surfaces, utensils and hands with soap and warm water.
- **Separate**: Separate raw meat, poultry, and seafood from ready-to-eat foods in your grocery shopping cart, refrigerator, and during meal prep.
- **Cook**: Cooked food is safe only after it has been heated to a high enough temperature to kill harmful bacteria. Use a food thermometer.
- **Chill**: Chill raw and prepared foods promptly if not consuming after cooking.

Tip 4. Connect with People

- Stories connect
- Emotions connect
Victim Stories

Parents haunted by decisions as raw milk’s impact lingers
BY COOKSON BEECHER | NOVEMBER 7, 2016

“I don’t know where to stick her; she doesn’t have any veins left.” That’s a medical specialist talking as she examined 3-year-old Jubilee Combs, a patient at a Kentucky hospital undergoing dialysis for a severe kidney disease acquired from drinking unpasteurized raw milk. That was two years ago while the little girl was being treated...

Tags: E. coli, E. coli outbreaks, hemolytic uremic syndrome, HUS, raw milk, unpasteurized milk

Victim warns expectant moms about food safety complications
Baby born prematurely with listeriosis after mother ate contaminated cantaloupe
BY COOKSON BEECHER | SEPTEMBER 8, 2016

Almost 5 years old now, Kendall Pastorek is right on track. She can walk, run, talk and say her ABCs. And while that normal progression of abilities common to many children her age might not seem all that impressive, to her mother and father Michelle Waskley-P Pastorek and Dave Pastorek, it’s “a miracle.” Little Kendall was...

Tags: cantaloupe, CDC, foodborne illness, Jensen Farms, Listeria, listeriosis, pregnancy, victims

Mother of Jack in The Box outbreak victim dies
BY CORAL BEACH | JANUARY 13, 2006

Suzanne Kiner, food safety advocate and mother of one of the child victims of the infamous 1993 Jack in The Box E. coli outbreak, died Jan. 5, 2006, at age 67. Kiner’s daughter Brianna was 9 years old in 1993 when she contracted what developed into a life-threatening infection from E. coli in a fast food hamburger...

Tags: Brianna Kiner, E. coli, E. coli O157:H7, ground beef, Jack in the Box, multi-state outbreaks, Suzanne Kiner
Real-Life Stories Reveal the True Impact of Foodborne Illness

BY JAMES ANDREWS | AUGUST 6, 2014

Alex Donley was a tender-hearted 6-year-old who dreamed of someday being a paramedic when he was stricken with an E. coli infection in 1993 after eating a hamburger made from contaminated ground beef. Four days later, he died in a hospital room after suffering a horrific bout of hemolytic uremic syndrome, a kidney disease stemming from the worst E. coli infections.

In the wake of Alex's death, his mother, Nancy Donley, chose to dedicate her life to fight for improvements to the safety of the U.S. food system. She took Alex's story to whoever would listen: food companies, trade groups, media, politicians, FDA and USDA.

After starting the nonprofit STOP Foodborne Illness, Donley and other parents of foodborne illness victims worked to advocate for tougher regulations on food contamination while educating consumers about proper food handling techniques to prevent illness.

Throughout her work, Alex's story was the main driver of Donley's activism. His story made others feel the impact foodborne illness has on families in a way that reciting statistics never could.

In the U.S., discussions of foodborne illness often refer to CDC estimates that 48 million Americans are sickened by foodborne pathogens each year, with as many as 3,000 dying as a result. But the real-life story of one of those 3,000 victims can do more to communicate the true nature of foodborne illness outbreaks, as food safety advocates such as Donley discussed on Tuesday at the International Association of Food Protection (IAFP) in Indianapolis.

"After Alex died, my mom said that not only did she lose a grandson, she lost a mother, because a part of me died when he died," Donley told the audience at IAFP.

She referred back to Alex's dream of becoming a paramedic to help others and save lives. Through sharing his story, his dream has come true.

"Because people have heard his story, lives have been saved, and he has gone on to help others the way he wanted to when he was 3 years old," she said.

Donley was part of a panel discussion on the impact that stories have on communicating the effects of foodborne illness, saying that stories can help families understand the severity of foodborne illness outbreaks.
Summary

• Make risk real
• Make risks connect
• Make risk meaningful
• And, tell them how to fix it.