

## Foodborne Disease Outbreaks: The Medium and The Message

Dr. Douglas Powell  
Associate Professor  
Dept. of Diagnostic Medicine/Pathobiology  
Kansas State University  
dpowell@ksu.edu | foodsafety.ksu.edu



## Burden Of Foodborne Illness In The US



- 76 million cases of foodborne illness, 325 000 hospitalizations and 5000 deaths (Mead et al., 1999)
- Limited data on economic consequences - \$6.9 billion (ERS, 2000)



## Food-as-foe

"I never thought you could die from E.coli. Never. I had heard of E.coli and I just thought it was food poisoning" she said. "I never ever thought Mason would die from it."



Mason Jones  
Dec. 24, 1999 - Oct. 6, 2005

- Family's call for E. coli lessons  
01.nov.05  
BBC News

## So. FL Girl Gets E. Coli From Hamburger Meat



Hamburger meat sold at Wal-Mart gives E. coli to a 15-year-old Pembroke Pines girl.

"You hear about E. coli, but you don't think it's going to happen to your family ... My daughter is a healthy teenager, she eats a hamburger and ends up in the hospital almost dying."

Source: NBC 6 South Florida,  
27.sep.07

## The International Food Safety Network

- The Food Safety Network provides research, commentary, policy evaluation and public information on food safety issues from farm-to-fork



## Eat Local: Movement Stresses Safety

- "Buying locally is much safer than just eating food that has been purchased en masse from god knows where."







benefits news suppliers book orders links

Your web source for grassfed meat, eggs & dairy

### NEWS UPDATE

#### Why Grassfed Is Best! What Are Grassfed Animal Products?

Most of the meat, dairy products, poultry, and eggs available in the stores come from animals that were raised in confinement, fattened on a grain-based diet, and treated with antibiotics or synthetic hormones.



benefits news suppliers book orders links

Your web source for grassfed meat, eggs & dairy

By contrast, "grassfed" products come from animals that are free to forage on pasture--- just like their wild ancestors. As in nature, their health and growth rate are determined by their genetics and the quality of the environment, not a pharmacopoeia of drugs.

## Organic = "Healthy"?! "I eat organic food and drink only green tea-- gallons of it when I'm writing. I smoke cigarettes, but organic ones"



Julie Delpy

Organic Style magazine March 2005

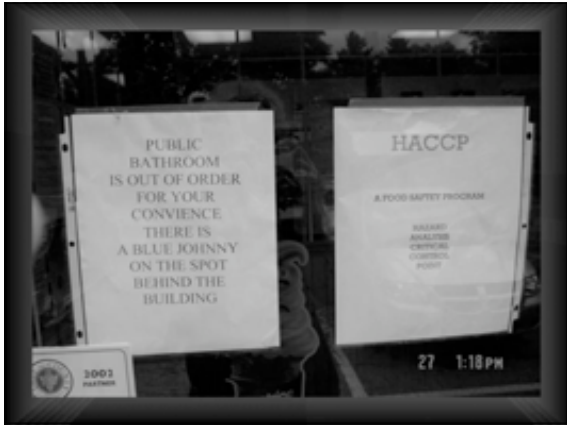


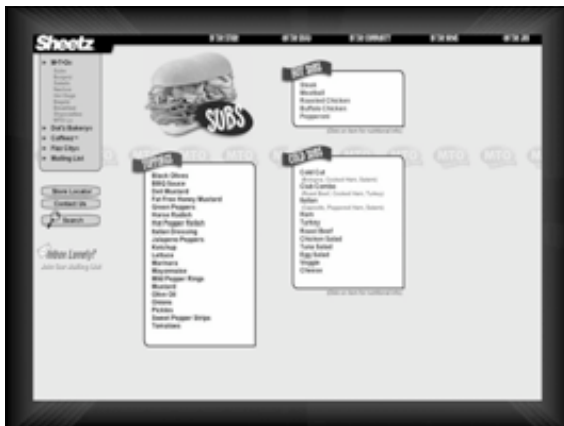
Source: <http://www.organicpastures.com/>

## Outbreaks - Table Listings

<http://www.foodsafety.kau.edu/en/article-details.php?a=1&c=4&sc=16&d=384>

Year	Location	Details	References
June/July 2007	Georgia	Source: Raw milk sold as pet food  Causal agent: <i>Campylobacter</i>  Illnesses: 3 families; 1 child hospitalized	***GEORGIA: Raw milk sickens three Georgia families*** 23 Jul 07 Atlanta Journal-Constitution
July 2007	Pennsylvania	Source: Raw milk given away from Stumps Acres Dairy  Causal agent: <i>Salmonella</i>  Illnesses: Undisclosed ("some consumers")	***Stump Acres Dairy stops giving away raw milk*** 22 Jul 07 York Daily Record





## Consumer Reaction?

- A customer at the store cheerfully assured him she wasn't worried about the food at Sheetz
- She gets diarrhea from her own cooking all the time

## Partnership for Food Safety Education -- July 20, 2004

- "In light of recent news related to salmonella and potential produce contamination..."
- "...In all cases, the first line of defense to reduce risk of contracting foodborne illness is to cook, clean, chill and separate."



"Everybody's getting too anal about it -- I mean, come on now, we're dealing with living fruits and vegetables"

## Over 680 Ill, Taste of Chicago

- "The Pars Cove situation represents the first confirmed outbreak of illness associated with the event in at least 20 years. In the larger context of having safely served tens of millions of people in recent years, the Taste remains quite possibly the safest food service operation in the city."

– July 18, 2007 Chicago Department of Public Health

## Lessons Learned?

- Food safety begins on the farm
- Biological systems, not conspiracies
- Systems are only as good as the weakest link
- Stop blaming consumers



## Rallying For The Attention Of An MTV Generation



"Anyone who tries to distinguish entertainment from education doesn't know the first thing about either"

Marshall McLuhan



## Compelling Food Safety Information

- Unexpected or new intros for messages
- Attention grabbing
- Are the old messages working?
- What is the audience?
- What is the purpose?

## Youtube September 19

Popeye The Sailorman KILLED! E-coli in his Spinach!



## Youtube September 19

On Spinach Antipasto: (RID Enabled)



## Youtube September 19



## Background - Communication




- "If you think the 10 commandments being posted in a school is going to change behavior of children, then you think "Employees Must Wash Hands" is keeping the piss out of your happy meals. It's not."

Source: Jon Stewart, Saturday Night Live monologue, 2002



## Purpose

- To examine washrooms for three items essential for personal hygiene in KSU's men's washrooms.
  - Running water
  - Soap
  - Paper towel




### Dude, wash your hands

Next time you visit a bathroom that is missing soap, water or paper towels, let someone in charge know.

Hand hygiene is the most effective way to prevent the spread of germs. It can reduce the risk of illness and protect your health.

When you visit a bathroom that is missing soap, water or paper towels, let someone in charge know.


Hand hygiene is the most effective way to prevent the spread of germs. It can reduce the risk of illness and protect your health.

When you visit a bathroom that is missing soap, water or paper towels, let someone in charge know.

Hand hygiene is the most effective way to prevent the spread of germs. It can reduce the risk of illness and protect your health.

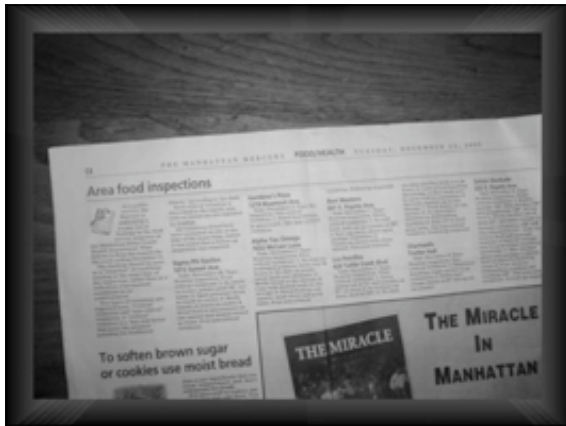
## Following U of G Norovirus Outbreak

- MSN screen names were changed
- Isolated students, electronic communication
- How could we use YouTube to demonstrate suggestions?

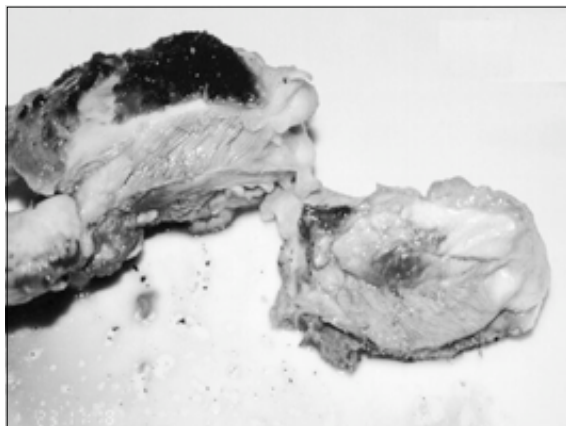



## Jessica Simpson Who?





### Safer Food With Smiley Faces - Danish Food Safety Authorities

A graphic consisting of four circular smiley face icons arranged horizontally. From left to right: the first is a happy face with a wide, upward-curving mouth; the second is a neutral face with a simple horizontal line for a mouth; the third is a neutral face with a simple horizontal line for a mouth; the fourth is a sad face with a downward-curving mouth.





### Cause For Consumer Confusion?

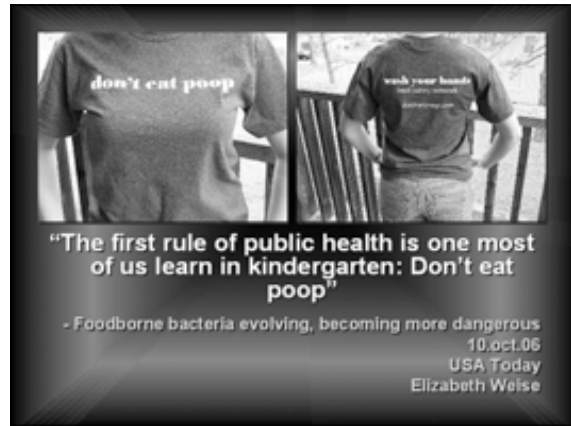
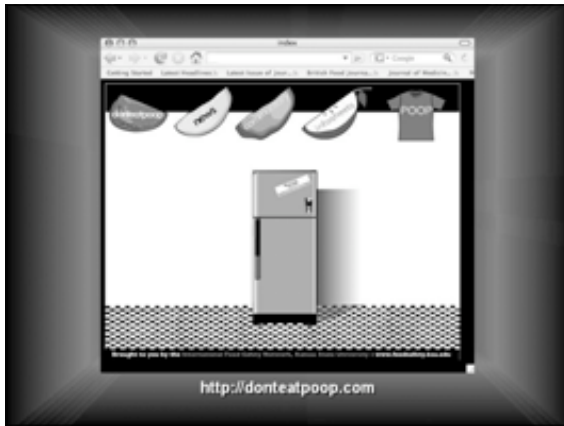
 <p>FULLY COOKED</p>	 <p>UNCOOKED</p>
Product packaging of fully cooked vs. uncooked products	Similar appearance of fully cooked and uncooked breaded products

### Stick it in



International Food Safety Network





## 4 C's of Food Safety

- Complex
- Constant
- Commitment
- Compelling

## Information Must Be:

- Rapid
- Reliable
- Relevant
- Repeated

