Food Safety Culture – From Farm to Fork
Dr. Douglas Powell, Powell Food Safety
A Webber Training Teleclass

Food safety culture from farm to fork

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barfblog.com

Hosted by Jane Barnett
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www.webbertraining.com May 27, 2015
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Princesses wear hockey skates

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Managing a foodborne illness outbreak is like coaching a kids’ hockey team

- My helmet’s too tight
- I have a runny nose
- I have to pee
- She hurt me

- Social media can amplify these concerns
Food safety communication philosophy

- Anyone who tries to make a distinction between education and entertainment doesn`t know the first thing about either
  - Marshall McLuhan, 1967
- The medium is the message
  - Understanding media: The extensions of man

Information must be:

- Rapid
- Reliable
- Relevant
- Repeated
E. coli O157 outbreak on strawberries in Oregon

- 1 dead 14 sick
- Deer droppings caused outbreak
- Six samples from Jaquith Strawberry Farm in Washington County tested positive for the E. coli O157:H7 strain that sickened 15 people and killed one in Oregon
- The positive tests probably indicate that several or perhaps many of the deer around Jaquith’s property carry O157:H7

Norovirus from change table

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Petting zoo/fairs

• 50 sick at Ekka 2013

![Hand sanitizer sign]

Should lettuce be washed?

• pre-packaged, says it’s washed, no
  • other, yes
    • but washing does little
    • greens in bins at retailers?
    • what’s a consumer to think?


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Clostridium botulinum
Lancaster, Ohio
One death and 24 illnesses
Linked to a church potluck
Canned potatoes in potato salad

2014 FOOD SAFETY PROGRESS REPORT

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Healthy People 2020 target rate</th>
<th>2014 rate*</th>
<th>Change compared with 2006-2008†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campylobacter</td>
<td>13.45</td>
<td>13% increase</td>
<td>🙁</td>
</tr>
<tr>
<td>E. coli O157*</td>
<td>0.92</td>
<td>32% decrease</td>
<td>😊</td>
</tr>
<tr>
<td>Listeria</td>
<td>0.24</td>
<td>No change</td>
<td>😞</td>
</tr>
<tr>
<td>Salmonella</td>
<td>15.45</td>
<td>No change</td>
<td>😞</td>
</tr>
<tr>
<td>Vibrio</td>
<td>0.45</td>
<td>52% increase</td>
<td>😞</td>
</tr>
<tr>
<td>Yersinia</td>
<td>0.28</td>
<td>22% decrease</td>
<td>😊</td>
</tr>
</tbody>
</table>

*Culture confirmed infections per 100,000 population
†2006-2008 were the baseline years used to establish Healthy People 2020 targets
*Shiga toxin-producing Escherichia coli O157

For more information, visit www.cdc.gov/foodnet

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Acidic/acidified foods heat sufficient to destroy vegetative microorganisms.
Foods packed into sealed, or airtight containers.
Low acid canned foods are heated under pressure at temperatures of 240-250°F (116-121°C).
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Majority of home canners have reported not following science-based home preservation methods

Receive much of their home preservation information through friends and family

Only 45% of respondents thought that home canned foods could be spoiled without obvious signs of spoilage

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Food safety should not be faith-based (but often is)

- My Blue Bell ice cream is safe from Listeria because I pray before I eat it
- Home-canned potatoes kill 1, sicken 30 with botulism at Ohio church dinner; death came because of sin

The Alternative to HACCP or HACCP-like: Faith-Based Food Safety

“We’ve always done it this way and we’ve never hurt anyone before…”

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7 deaths, 35 ill
Outbreak strain with genetic match was found in apple packing plant
Caramel apples
• Is it the apples?
• The caramel? The stick?

Yogurt Juggernaut Chobani Has Mold Problem
Sept. 5, 2013
By ALAN FARNHAM via GOOD MORNING AMERICA

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Mucor circinelloides

noun

1. A mold commonly found in the dairy environment.

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If I was them

• Would have immediately been a partner in the discussion

• instead of responding to complaints begin to tell a story.

• Starts at the first complaint they had (consumer/retail) get the people involved to sit and say what they heard and what they did

Chobani continued

• 1-2 min vignettes from customer service, QA/food safety, COO

• Say how they got from Aug 24 to today. And continue these vignettes through the process of figuring out what the issue was

• Explain the mold, what the possible sources are and exactly how they are trying to find the problem/fix it
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Cantaloupes linked to Salmonella outbreak
50 illnesses in Canada and the United States associated with Junctional cantaloupes grown in 2012.

On March 13, 2008 the US Food and Drug Administration (FDA) issued a warning and recall notice for certain cantaloupes grown in a specific farm in Junctional, Oregon due to the presence of a Salmonella infection. The FDA advised consumers not to consume or sell any of the cantaloupes grown by this farm.

What you can do:
- Make sure you refrigerate cantaloupes as soon as you bring them home from the store.
- If you cannot see the mold on the outside of the cantaloupe, you must cut the fruit in half and look for dark spots which could be Salmonella.
- The FDA recommended peeling the cantaloupes before eating the flesh. This would also help prevent spreading Salmonella to other foods in the kitchen.
- Don’t re-use cantaloupes even if they are cut and washed.

More information visit http://www.fda.gov/food/salmonella/cantaloupe/cantaloupe hazardous

http://www.youtube.com/watch?v=0TakuTlbk74
http://www.youtube.com/watch?v=-v4DYoKjwFw

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Hepatitis A in frozen berries

- Tens of thousands sickened across Europe and U.S.
- Cook berries says FSAI
- Difficult to track source

E. coli O157:H7 in XL beef

- 17 sick
- Condensation on pipes in the tripe room;
- Water in a sanitizer was not maintained at a high temperature;
- Meat cutting areas were not adequately cleaned; and,
- No sanitizing chemical solution in the mats used for cleaning employees’ boots.
- Deficiencies were never noticed by 40 inspectors, six veterinarians at the plant until people started getting sick.

http://barfblog.com/xl-sucks-companies-have-primary-responsibility-for-food-safety-without-that-were-all-screwed/

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5-fold risk increase in MTB for E. coli O157:H7
label must include:
• mechanically tenderized
• cook to an internal temperature of 63C (145F)
• turn steak at least twice during cooking
Double secret probation

- CFIA sends in special team to monitor its own inspectors

Foster Farms

- 621 sick with Salmonella since March 2013
- No public data
- Blaming consumers
Pinto defense

- We meet government standards
- Brand protection

Leafy greens food safety culture

- Government inspection is a minimal standard
- Food safety culture jumped the shark
- Make actual inspection data public
- Continuous on-line surveillance
- Market microbial food safety at retail,
- Stop stonewalling every time there is an outbreak linked to leafy greens.
- A table of leafy green related outbreaks is available at http://bites.ksu.edu/leafy-greens-related-outbreaks


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What do you do

• Have a story
• Have science/data to back that story up
• There is never zero risk – consumers have been led to believe that there are guarantees
• Tell your story in a genuine way
• Engage in dialogue proactively and reactively
• Evaluate

From the literature

• Using stories and narratives better than statistics alone
  • Cole, 1998; Cole, 1997; Howard, 1991; Leventhal, 1970; Morgan et al., 2002; Slater and Rouner, 1996
  • Frewer et al.,
• Put food safety into context
  • Leventhal et al., 1965; Lordly, 2007
• Generate dialogue
  • Azjen, 1991; Bohm et al., 1993; Dignum et al., 2001; Schein, 1993
• Surprising messages
  • Shannon, 1948

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Effective messages

• Understand the target audience
• Consider sociocultural factors
• Recognize individual perceptions
• Identify appropriate media
• Reliable and rapid messaging: repeat it
• Receiver has control

Designing effective messages for microbial food safety hazards
Food Control 21 (2010) 1–6
Casey Jacoba Lisa Mathiasenb, Douglas Powell

Effective messages

• Have to be clear
• The world runs on visuals/videos
• Test and evaluate
“At culinary school, we were taught to gauge the doneness of beef by touching it. As a food safety consultant, I believe you are foolish if you don’t use a thermometer.”
Food safety? Food that doesn’t make you barf

Improving audits and inspection

- More companies evaluating risks of suppliers themselves
- More companies evaluating own practices internally, at arms length
- An auditor industry that polices itself better
- Auditors with better risk identification
- Companies using audit results
- Adopting new technologies such as social media, infosheets, video observation
- Combat indifference

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Marketing food safety

- Source food from safe sources
- Public disclosure of food safety inspection results
- Mandatory food handler certification
- Rapid, relevant, reliable and repeated information
- Compel rather than educate
Food safety leaders do more than follow perceptions

Leaders create perceptions

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Food Safety Talk Podcasts
By Don Schaffner and Ben Chapman
To listen to an audio podcast, mouse over the title and click Play. Open iTunes to download and subscribe to podcasts.

Food Safety Talk

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Total: 9 Episodes

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barfbog: giving regulators something to do for a decade

- Government, industry, academics, lawyers and independents
- You don’t know the real story
- Then make it public, testing data, communications, management
- Tell your own story or someone will do it for you
- Who represents the publics, the people who get sick?
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Have a story
Have science/data to back that story up
• There is never zero risk – consumers have been led to believe that there are guarantees

Tell your story in a genuine way

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June 02 (Free British Teleclass ... Denver Russell Memorial Teleclass Lecture)
PHAGE THERAPY IN A POST-ANTIBIOTIC ERA
Dr. Martha Clokie, University of Leicester, UK

June 03 (FREE Broadcast live from the 2015 congress of The French Society for Hospital Hygiene)
PREVENTING INFECTIONS IN HEALTHCARE WORKERS: STRATEGIES AND CHALLENGES
Bruce Gamage, President, IPAC Canada

June 10 (South Pacific Teleclass)
PATIENT EMPOWERMENT AS PART OF AN ASIAN HAND HYGIENE PROGRAMME
Prof. Yee Chun Chen, National Taiwan University Hospital and College of Medicine

June 15 (FREE Broadcast live from the 2015 IPAC Canada conference)
THE POWER OF INFLUENCE
Michael Grinder, Grinder and Associates

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