

**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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Hosted by Jane Barnett  
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[www.webbertraining.com](http://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



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**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



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**Information must be:**

Rapid  
Reliable  
Relevant  
Repeated



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***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



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**Norovirus from change  
table**



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## Petting zoo/fairs

- 50 sick at Ekka 2013



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## 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?



<http://ucce.ucdavis.edu/files/datastore/234-851.pdf>

[http://vitals.nbcnews.com/\\_news/2012/08/31/13554719-bagged-lettuce-or-bulk-experts-offer-food-safety-advice](http://vitals.nbcnews.com/_news/2012/08/31/13554719-bagged-lettuce-or-bulk-experts-offer-food-safety-advice)

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### 2014 FOOD SAFETY PROGRESS REPORT

Pathogen	Healthy People 2020 target rate	2014 rate*	Change compared with 2006-2008†	
<i>Campylobacter</i>	8.5	13.45	↑ 13% increase	☹️
<i>E. coli</i> O157 <sup>§</sup>	0.6	0.92	↓ 32% decrease	😊
<i>Listeria</i>	0.2	0.24	No change	😐
<i>Salmonella</i>	11.4	15.45	No change	😐
<i>Vibrio</i>	0.2	0.45	↑ 52% increase	☹️
<i>Yersinia</i>	0.3	0.28	↓ 22% decrease	😊

\*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

U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention  
0255461-8 May 2015

For more information, visit [www.cdc.gov/foodnet](http://www.cdc.gov/foodnet)

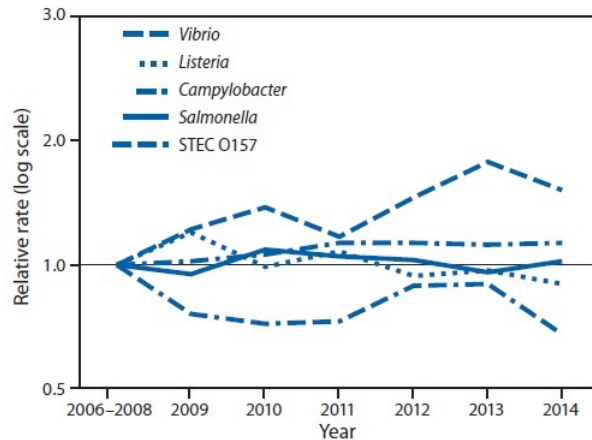
Provided by CDC Foodborne Diseases Active Surveillance Network (FoodNet) May 2015

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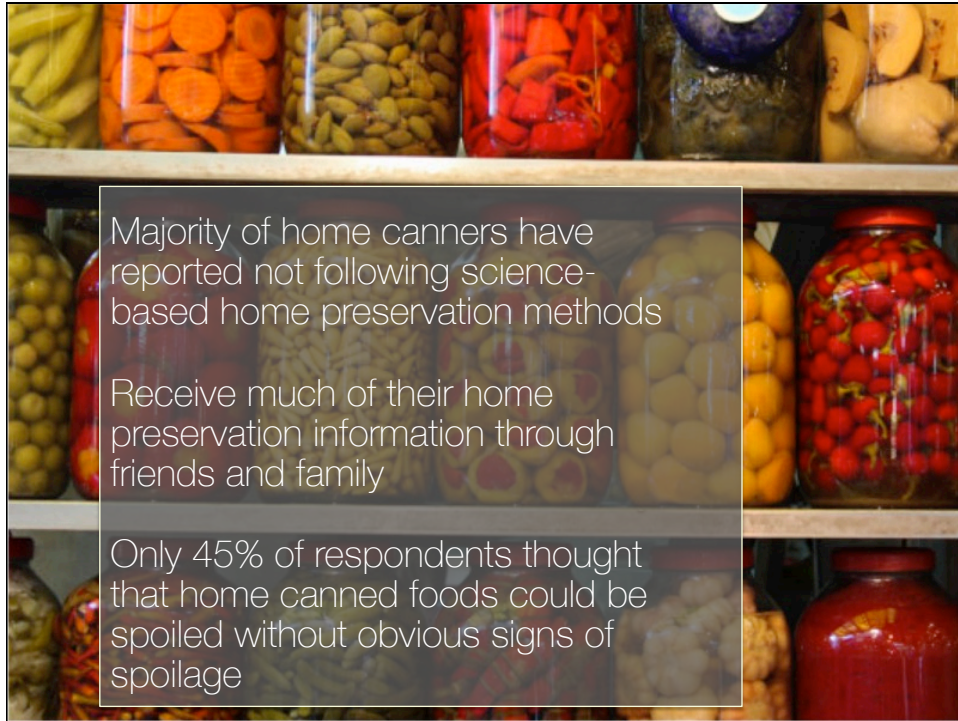
Provided by: CDC Foodborne Diseases Active Surveillance Network (FoodNet) May 2015



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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



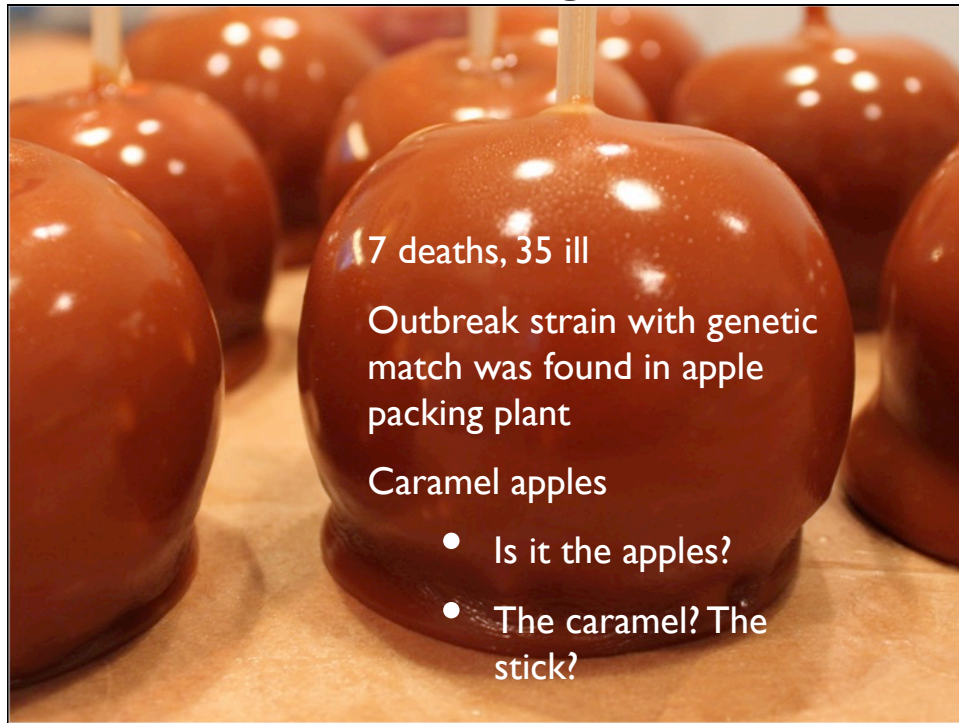
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**The Alternative to  
HACCP or  
HACCP-like:  
Faith-Based Food  
Safety**

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

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# Mucor circinelloides

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*noun*

1. A mold commonly found in the dairy environment.



Chobani Liked

Through extensive consultation, the set of protocols for this week is a special

Please find me

Like · Comment

547 people

432 shares

Brigid S take care me and surround and pay blessing milk to Like · Re

Liz Har actually



**Chobani** 835,178 likes · 2,071 talking about this

Food/Beverages  
We believe everyone deserves delicious, nutritious yogurt made with only natural ingredients. Grab a spoon and share your love for Chobani with us!

**Tammy Flowers** Had the blueberry one, tasted like rotten milk! Horrible 😞  
Like · Reply · 1 · August 25 at 11:47pm via mobile

**Chobani** Tammy, we are sorry to hear you got anything less than a perfect cup. Would you mind shooting us an email at care[at]chobani dot com? We will gladly work to make it up to you if you'd like to chat. Thanks!  
Like · August 26 at 11:08am

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## If I was them

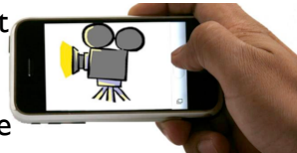
- Would have immediately been a partner in the discussion
  - instead of responding to complaints begin to tell a story.
- Starts at the first complaint they had (consumer/ retail) get the people involved to sit and say what they heard and what they did



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## 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



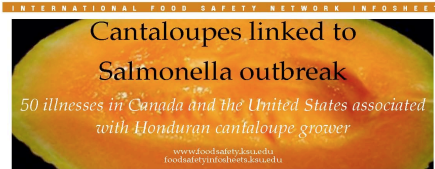
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On March 22, 2009 the U.S. Food and Drug Administration advised consumers not to eat cantaloupes from a Honduran grower because they were contaminated with *Salmonella* Litchfield. The outbreak has so far caused over 50 illnesses in 16 states and at least nine in Canada. Warnings and recalls related to cantaloupes are common, as they are always in the top 5 list of fruits and vegetables for outbreaks. This is largely due to their growing conditions and the potential to support the growth of bacteria.

As research has shown a potential for bacteria to be pushed into the meat of the cantaloupe during slicing, many authorities recommend washing the cantaloupe before eating. However, due to the roughness of the rind, it is very difficult to wash away much of the bacteria. Using a scrub brush under running water (especially at the out point) can reduce the risk of *Salmonella*.



#### What you can do:



- Make sure you refrigerate cantaloupes as soon as they have been sliced up. Bacteria such as *Salmonella*, can grow nicely on the orange meat of the fruit at room temperature.
- If you wash the outside of the cantaloupe, vigorously use a scrub brush under running water to remove any easy-to-get to bacteria (and try not to splash the water all around the kitchen).
- Don't wash many cantaloupes at once by soaking in a sink. This could lead to *Salmonella* transfer from one fruit to another.



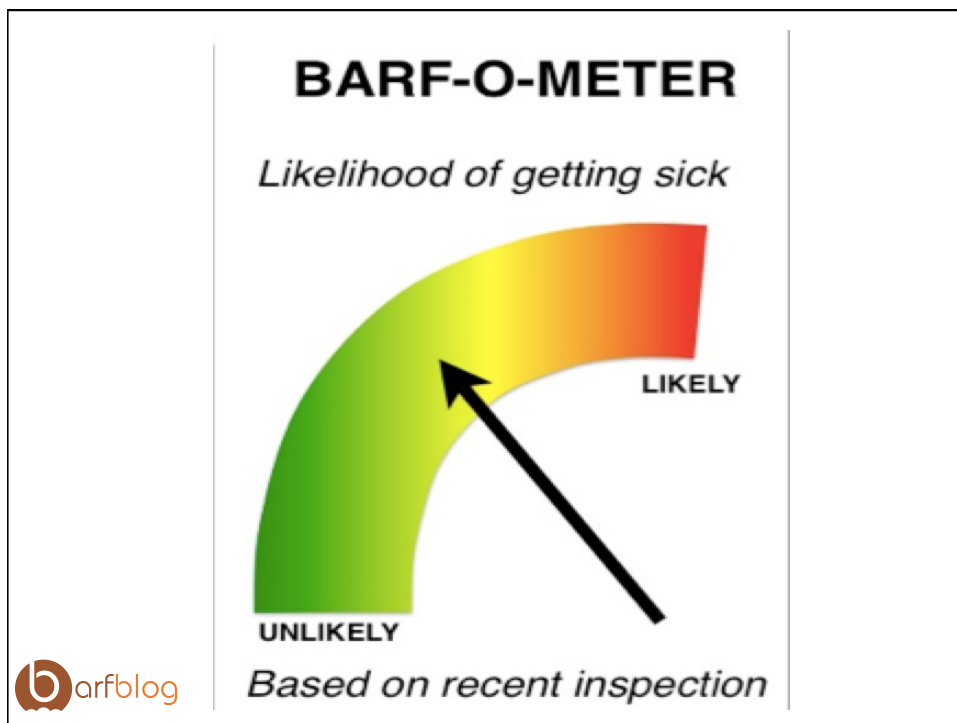
For more information contact Ben Chapman [bchapman@uga.edu](mailto:bchapman@uga.edu) or Doug Powell [djpowell@ksu.edu](mailto:djpowell@ksu.edu)



<http://www.youtube.com/watch?v=0TakuT1bk74>  
<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



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### *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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The image shows the cover of a document titled "Guidance on Mandatory Labelling for Mechanically Tenderized Beef". At the top left is the Health Canada logo with the text "Health Canada" and "Santé Canada". To the right is the slogan "Your health and safety... our priority." and "Votre santé et votre sécurité... notre priorité." in French. The title is centered in a bold font. Below the title is a box containing a disclaimer: "This document reflects interpretive guidance of the proposed regulatory amendments published in Canada Gazette part I. If the regulatory amendments are revised and published in Canada Gazette part II, this document will be updated." Below this is the date "DRAFT - February 2014". The bottom section features the "Food Directorate Health Products and Food Branch" logo and several small images: a woman reading a document, a child eating, a plate of food, and a fork with a red cherry tomato. The "barfblog" logo is in the bottom left corner.

5-fold risk increase in MTB for E. coli O157:H7

label must include:

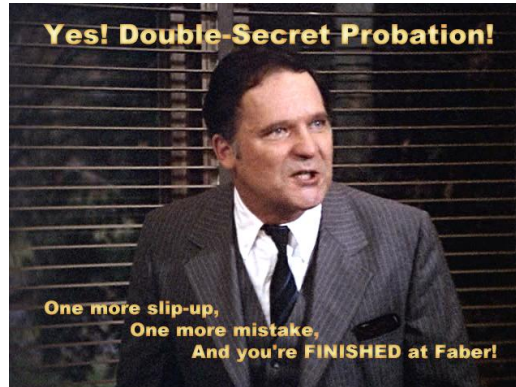
- mechanically tenderized
- cook to an internal temperature of 63C (145F)
- turn steak at least twice during cooking



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## Double secret probation

- CFIA sends in special team to monitor its own inspectors



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## Foster Farms

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



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## Pinto defense

- We meet government standards
- Brand protection



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## 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>



<http://barfblog.com/2013/06/food-safety-culture-and-leafy-green-hacks/>

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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



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## 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
  - Ajzen, 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



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“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.”



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**STICK it in**



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Food safety? Food that doesn't make you barf



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## 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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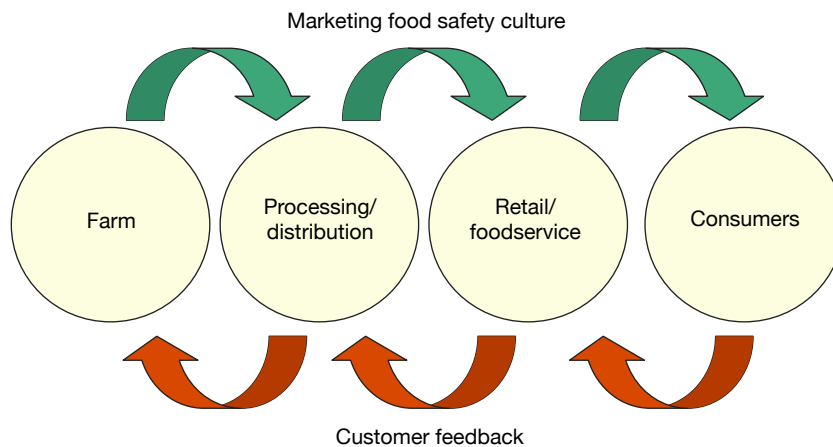
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## Marketing food safety

- 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



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**Food safety leaders do  
more than follow  
perceptions**



**Leaders create perceptions**



**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.



[View In iTunes](#)

Free

Category: [Natural Sciences](#)  
Language: English

**Customer Ratings**

★★★★★ 5 Ratings

**Podcast Description**

Ben Chapman is an Assistant Professor and Extension Food Safety Specialist at North Carolina State University and Don Schaffner is Extension Specialist in Food Science and Professor at Rutgers University. Every two weeks or so Ben and Don get together to talk about food safety current events and the challenges of making the food supply safer.

Name	Description	Released	Price	
1 Food Safety Talk 13: I Don...	In this episode Don an...	3/2/12	Free	<a href="#">View In iTunes &gt;</a>
2 Food Safety Talk 12: Duell...	Ben has McDonalds for...	2/12/12	Free	<a href="#">View In iTunes &gt;</a>
3 Food Safety Talk 11: Some...	Episode 11 opens with ...	2/11/12	Free	<a href="#">View In iTunes &gt;</a>
4 Food Safety Talk 10: Fake ...	Episode 10 starts out ...	1/13/12	Free	<a href="#">View In iTunes &gt;</a>
5 Food Safety Talk 9: Two m...	Episode 9 of Food Safe...	12/17/11	Free	<a href="#">View In iTunes &gt;</a>
6 Food Safety Talk 8: They b...	Don and Ben talk a lot ...	12/9/11	Free	<a href="#">View In iTunes &gt;</a>
7 Food Safety Talk 7: Dazed...	In Episode 7 of Food S...	11/26/11	Free	<a href="#">View In iTunes &gt;</a>
8 Food Safety Talk 6: Anima...	In Episode 6 Don and B...	11/21/11	Free	<a href="#">View In iTunes &gt;</a>
9 Food Safety Talk 5: A Med...	Don and Ben are back i...	11/9/11	Free	<a href="#">View In iTunes &gt;</a>

Total: 9 Episodes

[www.foodsafetytalk.com](http://www.foodsafetytalk.com)



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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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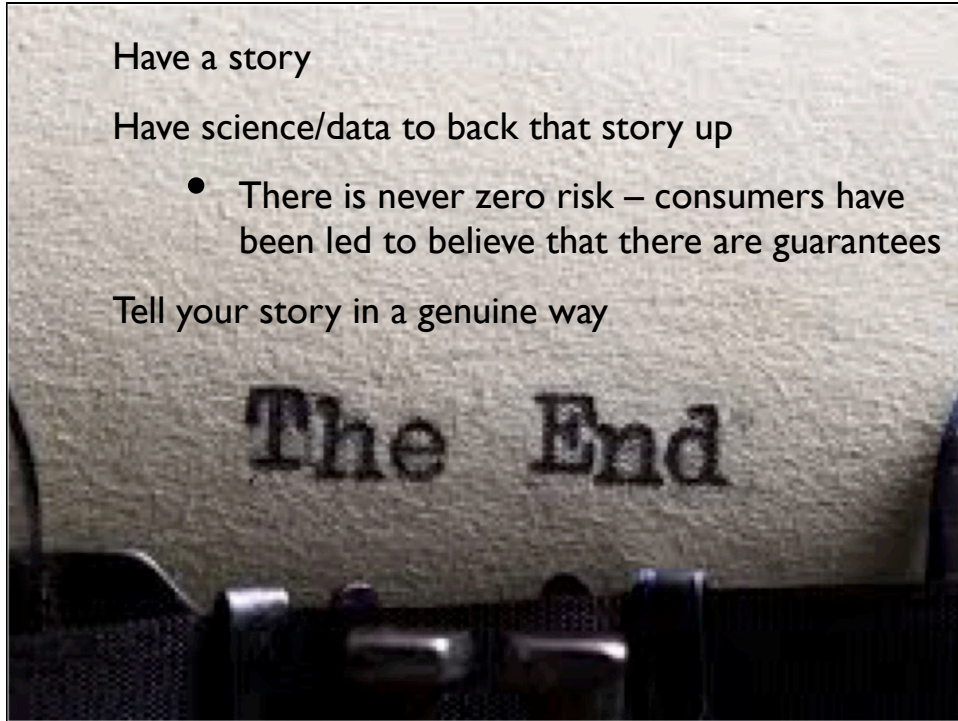
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Have a story

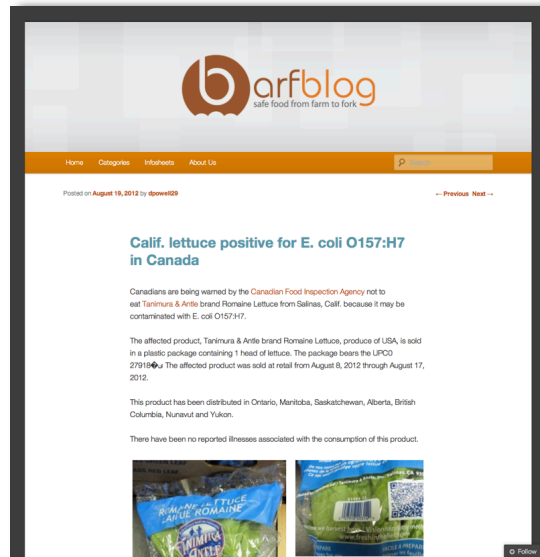
Have science/data to back that story up

- There is never zero risk – consumers have been led to believe that there are guarantees

Tell your story in a genuine way



## barfblog.com



barfblog

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Coming Soon

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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