Using Multiple Media And Messages to Create and Foster a Good Food Safety Culture

Dr. Ben Chapman

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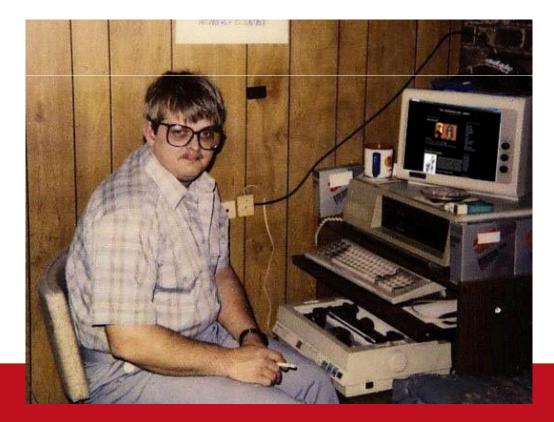


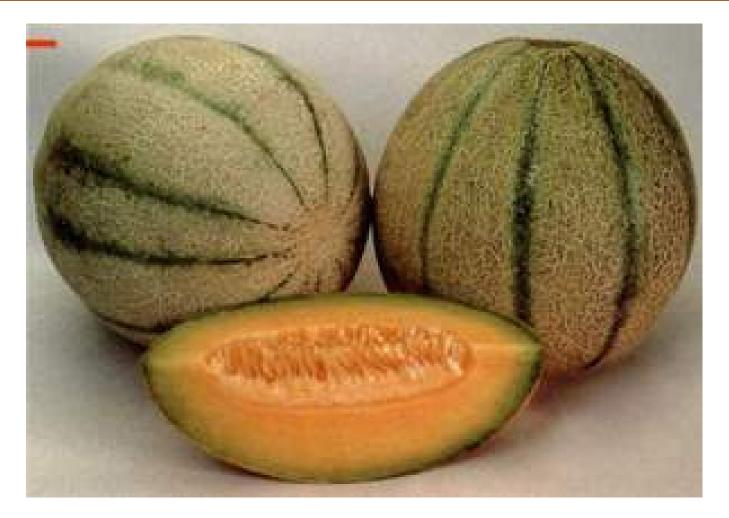




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Why did my grandmother overcook pork?





Food safety communication philosophy

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

CONTACT MATT LAURENCE JUDE GWYNETH WINSLET

IN THEATERS AND MAX SEPTEMBER 9



What Not To Buy Online: Lollipops Laced With Chickenpox



• NPR November 7, 2011

• http://www.npr.org/blogs/health/2011/11/07/142098710/what-not-to-buy-online-lollipops-laced-with-chickenpox?ft=1&f=1001



Food safety culture

- It is a set of shared attitudes, values and beliefs around food safety
 - Production/sources
 - Handling/storage
 - Preparation
- You can have a good food safety culture or a bad one



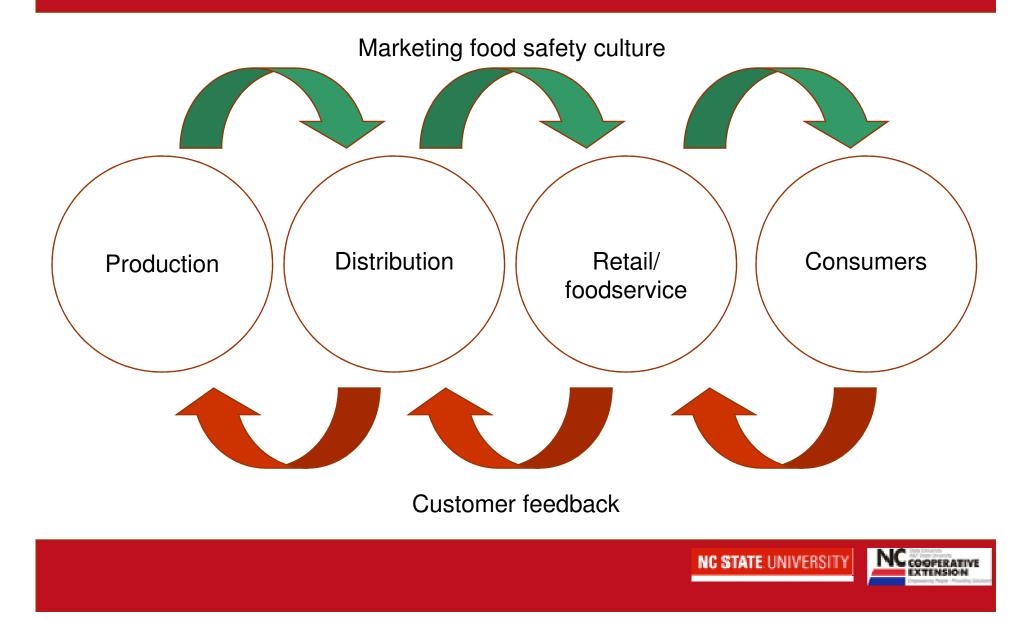




Food safety culture

- Maintaining a food safety culture means:
 - Everyone know the risks associated with the job they do
 - What has happened in the past?
 - o Know why managing the risks is important
 - Can effectively manage those risks
 - o Demonstrable
 - Are ready to deal with problems
 - Are looking for future risks

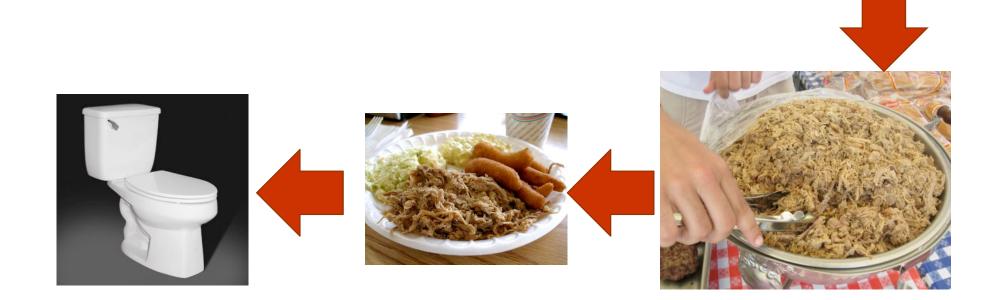




















Toronto Star, November 5, 2011



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From the literature

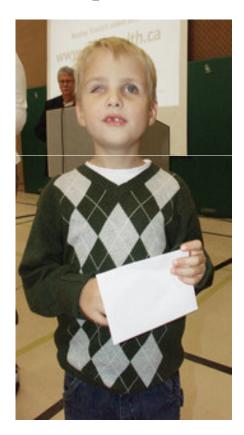
- Using stories and narratives better than statistics alone
 - Cole, 1998; Cole, 1997; Howard, 1991; Leventhal, 1970; Morgan et al., 2002; Slater and Rouner, 1996
- Sticky factor
- FDA Oral Culture Learner Project







Impacts



Travis Cudney Blind since age 2 Complications from a pathogenic *E. coli* infection



Mason Jones Died at age 5 *E. coli* O157 Acquired through school lunch program 157 illnesses, 31 hospitalizations



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- Put food safety into context
 - o Leventhal et al., 1965; Lordly, 2007
- The medium is the message and it better be correct for the target audience





- Generate dialogue
 - o Ajzen, 1991; Bohm et al., 1993; Dignum et al., 2001; Schein, 1993
- Surprising messages
 - o Shannon, 1948



Surprising message?

 "Upon indigestion, the larvae are freed from the cyst by and then proceed to migrate to the intestine. Here they develop to maturity and after fertilization the adult worms produce living embryos which invade the blood stream and are carried to all, or nearly all, of the voluntary muscles of the body."





Food Safety Information Summaries -- April 17, 2003

LOCAL SHIGELLA OUTBREAK HAS LOCAL HEALTH OFFICIALS WORRIED. April 15, 2003 KBLK.com

Michelle Hayes

A highly contagious disease is sweeping through several area communities and health officials want you to be warned. Shigellosis is a communicable disease which causes severe diarrhea. It's caused by the bacteria shigella and is spread from one infected person to the next by hand-to-mouth contact. Shigellosis is a nationwide epidemic; here on the South Plains it is having a big impact on three communities: Lubbock, Levelland and Brownfield. Most cases of shigellosis occur among toddlers who are not fully toilet-trained. The children at All God's Children Learning Center in Lubbock are learning a very important life lesson early. "We wash their hands before everything," says the daycare's director, Gloria Wellington. "After come from outside, before every activity the first order of business is to wash hands." It's an order of business which could prevent them from contracting shigellosis. "Children may not observe proper hygiene after going to the bathroom and children put their hands in their mouths or in other children's mouths," says Ken Condon, a Disease Investigator for the City of Lubbock Health Department. Condon says shigellosis has become and epidemic in the city and that it's "keeping us very, very busy." Right now, the Lubbock City Health Department is investigating 48 cases of shigella and that's more than double the number of cases they tracked last month. Condon says shigella is "very highly contagious, it takes only ten bacteria which would fit on the head of a pen to transmit the bacteria from one person to another and that's why we are so eager to inform people to properly wash hands often using the bathroom or before preparing foods." And for the little ones at All God's Children Learning Center, washing their hands is something they enjoy. "Our teachers model what we teach to the kids. We have a song that we sing just to reinforce in their little minds that everytime you hear this song, you need to wash your hands," says Wellington. Without medical treatment, it takes about 24 to 48 hours for shigella to exit your system. But officials say, even if you no longer have symptoms you are still contagious for sometime afterward.

EASTER FOOD SAFETY April 17, 2003 Food Safety Network

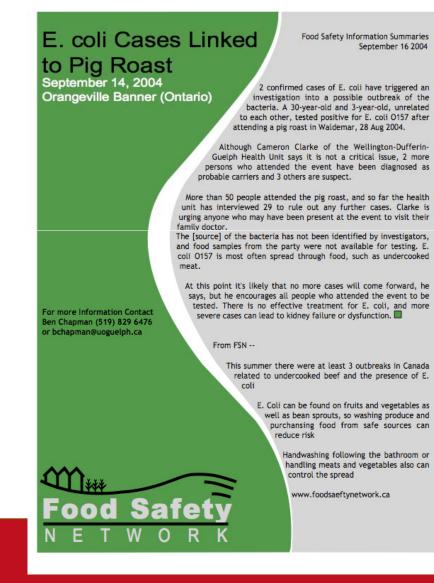
GUELPH, ONT. -- This Easter season, the Food Safety Network wants to remind Canadians that help is available for questions on safely cooking the holiday meal. A national bilingual toll-free line, 1-866-503-7638 is operational 9 a.m. to 5 p.m. Eastern time, Monday to Friday. The line will be open Good Friday and staff will be available Saturday April 19th from 9 a.m. to 2 p.m. to answer food safety questions. Ouestions can also be submitted electronically at <u>Sansni@uoguelph.ca</u>.

Is cooking duck and goose like cooking a turkey? Does lamb have to be cooked to well done? How do I know when ham is cooked? Are coloured Easter eggs safe to eat? These are samples of the many types of questions staff at the Food Safety Network are able to answer. "Most people know that it's important to handle and cook food properly to prevent foodborne illness," said Dr. Douglas Powell, an associate professor and scientific director of the Food Safety Network. "But the food safety continuum involves many different issues. Staff at the Food Safety Network have the expertise to provide information on food safety, and the way from the farm right through to the kitchen." Good food safety halts will help ensure that Easter festivities are a celebration, unmarred by foodborne illness. Wash hands before and after preparing all food, and after eating. Hard-boil eggs before colouring and store them in a clean, covered container in the refrigerator. Do not eat eggs that have been out of the refrigerator for more than two hours. Leftovers should be refrigerated within two hours, in small containers for rapid cooling.

Contact the Food Safety Network at 1-866-503-7638 or fsnrsn@uoguelph.es for food safety information now and throughout the year. Or visit the Food Safety Network websites at www.foodsafetynetwork.ca and www.eatwelleatsafe.ca The Food Safety Network (FSN) at the University of Guelph provides research, commentary, policy evaluation and public information on food safety issues from farm-to-fork. FDA Southeast Region Annual Food Safety Seminar

From Chapman et al., 2011. Food safety infosheets: Design and refinement of a narrative-based training intervention. BFJ. 113. 160-186









www.foodsafetyinfosheets.com



OVER 100 ILL AFTER FOUR OUTBREAKS LINKED TO PASTRIES SERVED IN ILLINOIS



Staphylococcus aureus

Bakery products such as cream-filled pastries like cream pies and chocolate eclairs are often implicated in

outbreaks Testing revealed Staphylococcus aureus in Rolf's Patisserie products

A Lincolnwood, Illinois bakery was the source of four outbreaks of staphylococcal food poisoning in November and December, 2010. These outbreaks at catered functions, resulted in at least 100 illnesses. Rolf's Patisserie, the implicated business, closed it's doors and recalled a number of products sold at retail to limit further illnesses. Cases were linked to eating baked goods at a restaurant or function. Food

samples tested by local health authorities confirmed the presence of Staphylococcus aureus bacteria.

The bakery reopened after discarding all food ingredients; thoroughly cleaning and sanitizing the facility; and, retraining employees on proper hygienic practices.

Staphylococcus aureus can grow in protein-rich, low-acid foods (like cream-filled pastries) held at room

temperature. When the bacteria grows, they create toxins resulting in diarrhea, nausea, vomiting, and abdominal cramps when eaten. Onset of the symptoms can be as quick as an hour after consuming contaminated food.

Staphylococcus aureus is commonly found on human skin. Outbreaks at bakeries are often linked to poor personal hygiene, contaminated equipment and temperature abuse.

WHAT YOU CAN DO

- PRACTICE GOOD PERSONAL
- CLEAN AND SANITIZE EQUIPMENT BETWEEN USE TO LIMIT CONTAMINATION OF FOOD
- REFRIGERATE CREAM-FILLED PASTRIES DURING STORAGE AND TRANSPORTATION

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FOR MORE INFORMATION CONTACT BEN CHAPMAN, BENJAMIN CHAPMAN@NCSU.EDU OR DOUG POWELL, DPOWELL@KSU.EDU KSIAIE



FOOD SAFETY INFOSHEET FEBRUARY 4, 2011 WWW.FOODSAFETYINFOSHEETS.COM



BELGIAN SHIGELLA OUTBREAK LINKED TO CAFETERIA WORKER

- What is Shigella?
 Shigella is a bacterium that passes from person to person through fecal-oral contamination (that means poop in food, on hands or on surfaces).
- Common symptoms can include blood and mucous in diarrhea, often called dysentery.
- If ill, a person can transmit *Shigella* to others long after symptoms are gone. *Shigella* can be transmitted even if the

person does not show symptoms.

- What you can do:
- If you're ill with, nausea resulting in vomit or diarrhea do not handle food.
- Food handlers should wash hands before preparing food and after going to the bathroom.
- Handwashing steps include: wet hands, apply soap, lather, rinse and dry with a one-use towel.



FOOD HANDLERS CAN TRANSMIT ø SHIGELLA IN THEIR POOP WITHOUT EVEN SHOWING SYMPTOMS 52 SHIGELLOSIS CASES LINKED TO ONE FOOD HANDLER OVER A 2 MONTH PERIOD

A recent study in *Epidemiology and Infection* detailed an outbreak of shigellosis linked to eating in a particular Belgian cafeteria. Investigators explored possible situations leading to the illnesses, testing food as well as fecal samples from staff. Following sample analysis and through surveys with staff of recent illnesses and travel, one staff member was identified as the source of the outbreak.

Investigators found that the implicated food handler had traveled to Morocco shortly before the illnesses began to appear in patrons. The staff member returned to work following the trip and did not display symptoms of the illness. Only 13 of the reported 52 cases were confirmed through stool culture. Seven of those cases were found to be the same strain of illnesses as some seen in Morocco at the same time.



FOR MORE INFORMATION CONTACT BEN CHAPMAN, BENJAMIN_CHAPMAN@NCSU.EDU

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FDA Southeast Region Annual Food Safety Seminar



What is safe food? Are there indicators?





Here's the rub

- Significant deviations between stated and actual behavior
 - DeDonder et al.; 2008; Clayton and Griffith 2003; Jay et al., 1999; Redmond et al., 2004; Surgeoner et al., 2009
- Most evaluations use this selfreported data for measuring knowledge and intended changes
 - o Redmond and Griffith, 2004; Chapman et al., 2010



RESTRICTED ADMISSION DUE TO VIRAL OUTBREAK ON CAMPUS

UofG is working with the Wellington-Dufferin-Guelph Health Unit to contain a viral outbreak in student residence, notably South Residence.

As a result, non-residents of this building are strongly urged not to enter until further notice.

Symptoms of the gastrointestinal illness include severa nausea, vomiting, abdominal cramps and diarrhea. The illness usually lasts from 24 to 48 hours.

Anyone with symptoms should rest at home/residence, not attend classes or public events, and avoid contact with other people until they are symptom-free for 48 hours.

Check the campus news section of the UofG website for more information: www.uoguelph.ca

Posted by Student Health Services

Food safety voyeurism



- Recreating an outbreak scenario and observing
 - Bryan et al., 1971
- Observation of practices by video
 - Anderson et al., 2004; Dedonder et al., 2009; Clayton and Griffith 2003; Jay et al., 2003
 - Chapman et al., 2010;
- Ethnography
 - o Chapman et al., 2011



October Food Safety 12 Infosheet

2010

Fruit compote juice linked to E. coli O157 outbreak at www.foodsafetyinfosheets.com festival in Winnipeg

FDA Southeast Region Annual Food Safety Seminar

Food handlers should be careful not to contaminate ready-toeat or drink products.

What you can do:

•Wash and dry hands using soap, potable water and paper towels prior to handling foods.

 When storing food in coolers or fridges, keep ready-to-consume products covered and above items like raw meat that might drip.



Juices have been linked to outbreaks in the past

•E. coli O157 contaminated Odwalla brand juices linked to 66 illnesses in

 Salmonella contaminated Orchid Island Juice Company brands linked to 15 illnesses in 2005 • in 2006, Bolthouse Farms carrot juice was the the source of 6 botulism illnesses including a death

37 illnesses and 18 hospitalizations linked to outbreak

Post-boiling

likely

contamination

As fruits were

A fruit juice is the most likely culprit in sickening visitors to a Winnipeg (Canada) festival in August 2010. The majority of illnesses were associated with a Russian combination platter served at Folklorama, an annual heritage celebration. The Russian platter contained borscht (beet soup), meatballs, a rice dish, and the compote juice. The focus narrowed to the juice as ill patrons reported eating both a vegetarian and nonvegetarian dish, with the juice as the only common food.

The compote juice was prepared by adding washed, unpeeled apples, blueberries and

blackberries to boiling water. Once boiled for five to 10 minutes, the juice was decanted into large plastic pails. The juice was then refrigerated until served cold.



washed and boiled as part of the juice-making process it's likely that juice was contaminated either by a staff member or through crosscontamination in the fridge. Health officials believe that ground beef, which was also being handled and prepared at the site, was the most likely source of contamination.





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FOR MORE INFORMATION CONTACT BEN CHAPMAN, BENJAMIN_CHAPMAN@NCSU.EDU



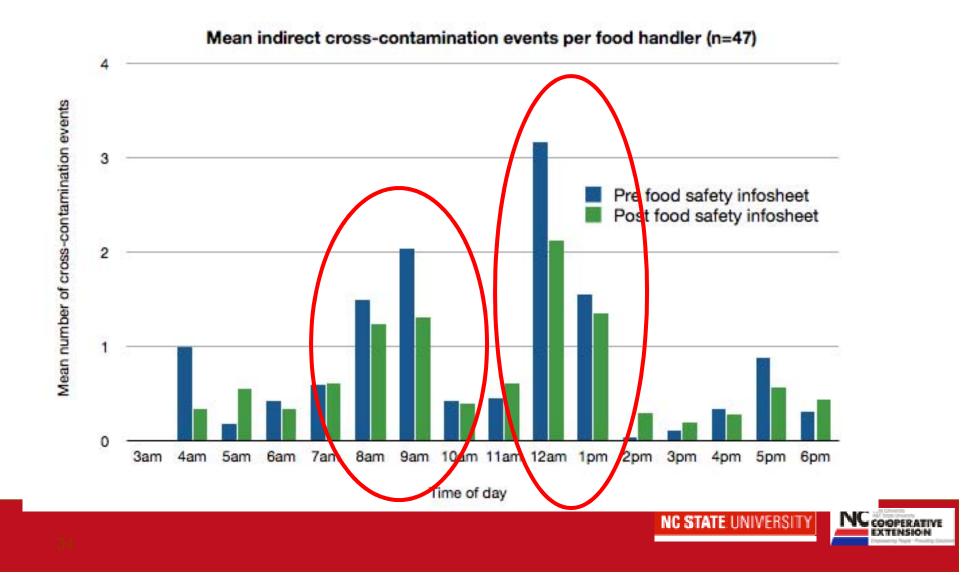


Results: Mean events per food

handlor					
	Event	Pre	Post	Change	percentage
		(12.4 hrs)	(13.5 krs)		
	Handwashing	21.1	22.5	+1.42*	+6.7%
	attempts				
	Correct handwashing	2.4	4.0	+1.64*	+68.9%
	events				
	Indirect cross-	15.7	13.1	-2.57*	-19.6%
	contamination				
	Direct cross-	1.9	1.0	-0.85*	-81.7%
	contamination				

*Significance level (p <.05, 95% CFTATE UNIVERSITY



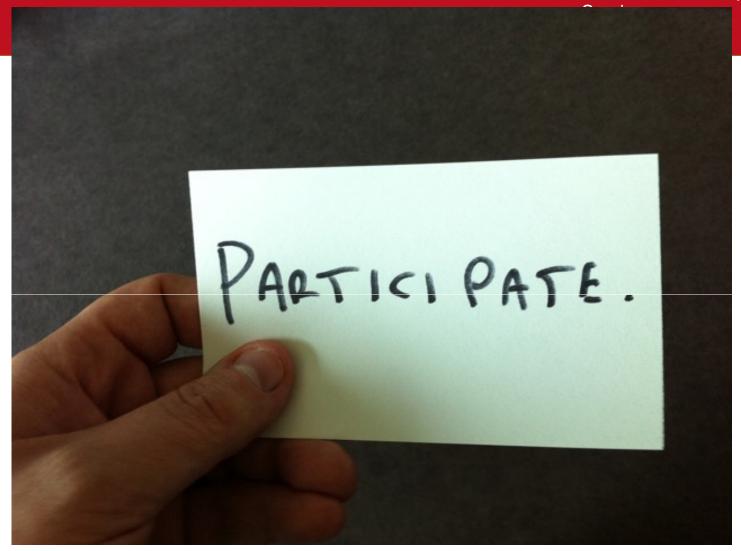














> COOPERATIVE EXTENSION

YouTube September 19, 2006

Spinach Health Advice - Funny



Wikipedia 1:00pm September 19, 2006



The outbreak was traced to bagged uncooked spinach. Two companies in California have voluntarily recalled spinach and spinach-containing products: Natural Selection Foods LLC^[5], based in San Juan Bautista, California, and River Ranch Fresh Foods ^{[6][7][8]}. Natural Selection brands include Natural Selection Foods, Pride of San Juan, Earthbound Farm, Bellissima, Dole, Rave Spinach, Emeril, Sysco, O Organic, Fresh Point, River Ranch, Superior, Nature's Basket, Pro-Mark, Compliments, Trader Joe's, Ready Pac, Jansal Valley, Cheney Brothers, D'Arrigo Brothers, Green Harvest, Mann, Mills Family Farm. Premium Fresh. Snobov. The Farmer's Market. Tanimura & Antle. President's Choice. Cross Valley, and

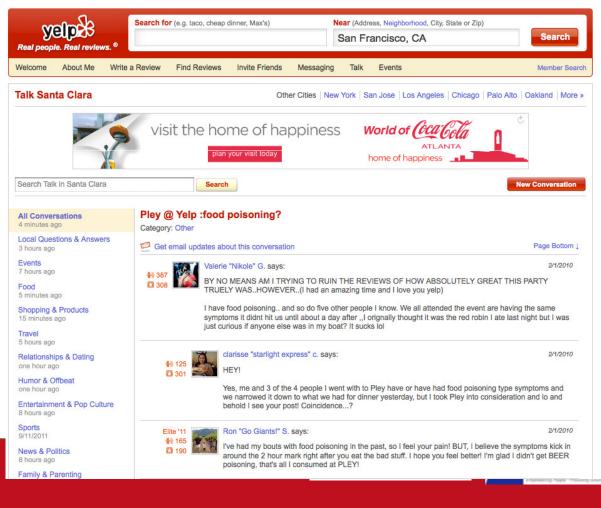


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Wright County Egg/Salmonella 2010

 Big break during investigation = health department follows up on angry consumers complaining of illnesses on Yelp



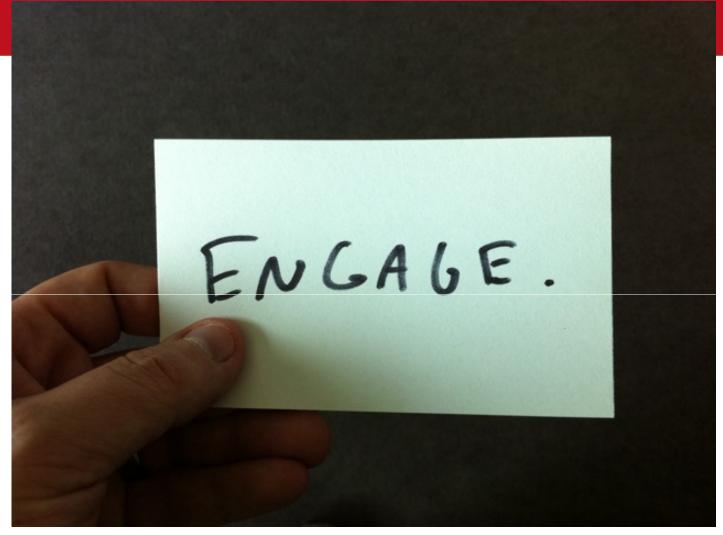


Blogging – create your network content

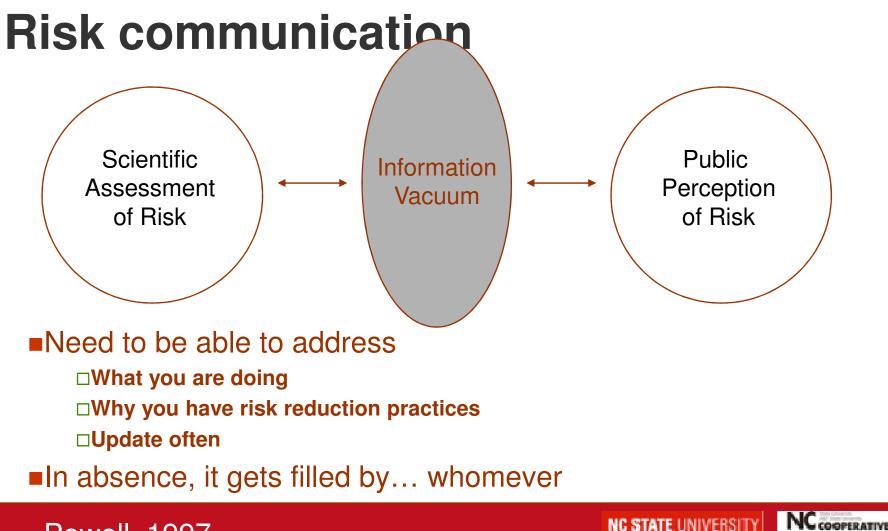




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Powell, 1997

Witty Willie

- public statement regarding being caught with a bag of Marijuana
- "It's a good thing I had a bag of Marijuana instead of a bag of spinach. I'd be dead by now."





(Getty Images)



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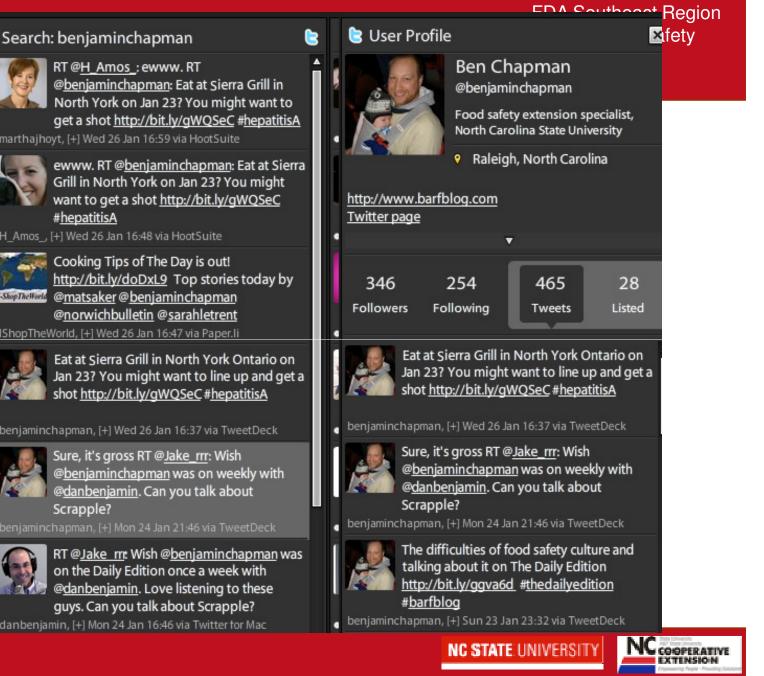


Study: Fecal Bacteria Found On Most Supermarket Shopping Carts

March 7, 2011 1:20 PM



(Getty Images)



Search: benjaminchapman

North York on Jan 23? You might want to get a shot http://bit.ly/gWQSeC #hepatitisA

marthaihovt, [+] Wed 26 Jan 16:59 via HootSuite



ewww. RT @benjaminchapman: Eat at Sierra Grill in North York on Jan 23? You might want to get a shot http://bit.ly/gWQSeC #hepatitisA

H Amos, [+] Wed 26 Jan 16:48 via HootSuite



Cooking Tips of The Day is out! http://bit.ly/doDxL9 Top stories today by Manager @benjaminchapman @norwichbulletin @sarahletrent

IShopTheWorld, [+] Wed 26 Jan 16:47 via Paper.li



Eat at Sierra Grill in North York Ontario on Jan 23? You might want to line up and get a shot http://bit.ly/gWQSeC #hepatitisA

benjaminchapman, [+] Wed 26 Jan 16:37 via TweetDeck



Sure, it's gross RT @Jake_rrr: Wish @benjaminchapman was on weekly with @danbenjamin. Can you talk about Scrapple?



on the Daily Edition once a week with @danbenjamin. Love listening to these guys. Can you talk about Scrapple?



There are three separate weekly blogs here:

- the story of my fourth pregnancy, a bit of a surprise discovered in late November 2006 and ending with the birth of Monroe on July 9, 2007, surprisingly and thrillingly, without any intervention but for a last-minute epidural. Monroe was 7 pounds, 6.7 ounces (they rounded up), 20.25 inches long and was born at 11:40 p.m.;
- the story of my escapades with fertility and pregnancy starting in August 2004 (one week off the "official" gestational week), ending in the birth of Truman on April 28 2005 via c-section after 30-some hours of unmedicated labor. Truman was 7 pounds, 7 ounces, 19.5 inches long and was born at 6:24 p.m.;
- and the story of my second pregnancy, which sadly ended in the eighth week due to miscarriage.

See the bar to the right for weekly links. Clearly this blog is not "secret," despite its directory, as it's on the internet. But sometimes I like to pretend.

Everything on these pages is copyright 2004-2007 by me, Sarah Gilbert.

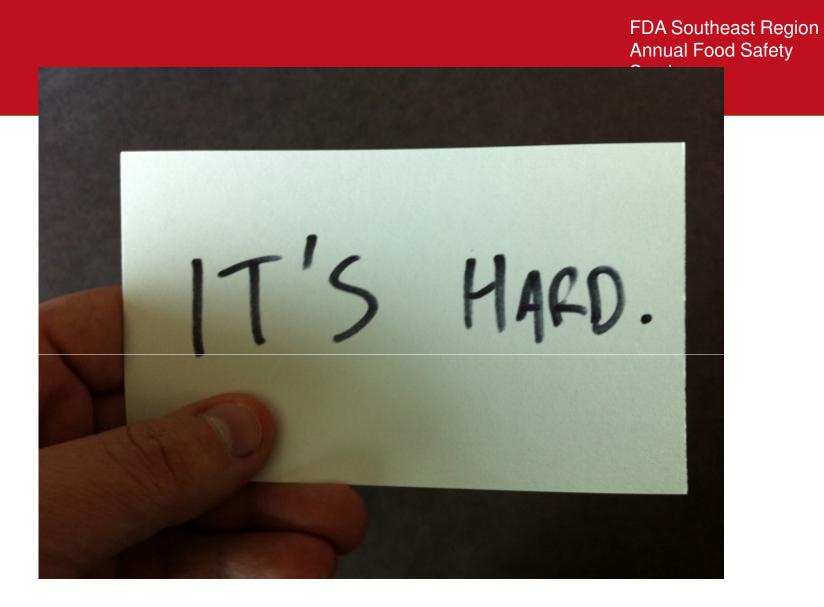
Pregnancy stats: No longer pregnant! I'll be updating occasionally with news of my sisters' pregnancies, perhaps.

2007.08.06. running my blues away

"When I get home," said Jonathan, whose unexpected orders for annual training had come in just over a week ago, "why don't you have your running clothes on and be ready to go."

housekeeping	navigation bar
	pregnant home
These weekly blog pages defy blog practice by	
appearing in forward chronological order.	review of pregnant books
the story of my fourth pregnancy, due July 2007	all the pregnancy symptoms I know
Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8 Week 9Week 10Week 11Week 12	10 things to do when you're pregnant
Week 13Week 15Week 16Week 17Week 18Week 19Week 20 Week 21Week 22Week 23Week	easy ways to eat healthy while pregnant
24Week 25Week 26Week 27 Week 28Week 29Week 30Week 31Week 32Week 33Week 34	photos of the pregnant me
birth	some baby names i like
belly shots (thirty weeks along)	
and the second second	back to cafemama







PODCASTS ABOUT US

FOOD SAFETY TALK

Every couple of weeks Don and Ben get together on the interwebs and talk food safety. Sometimes there are guests.

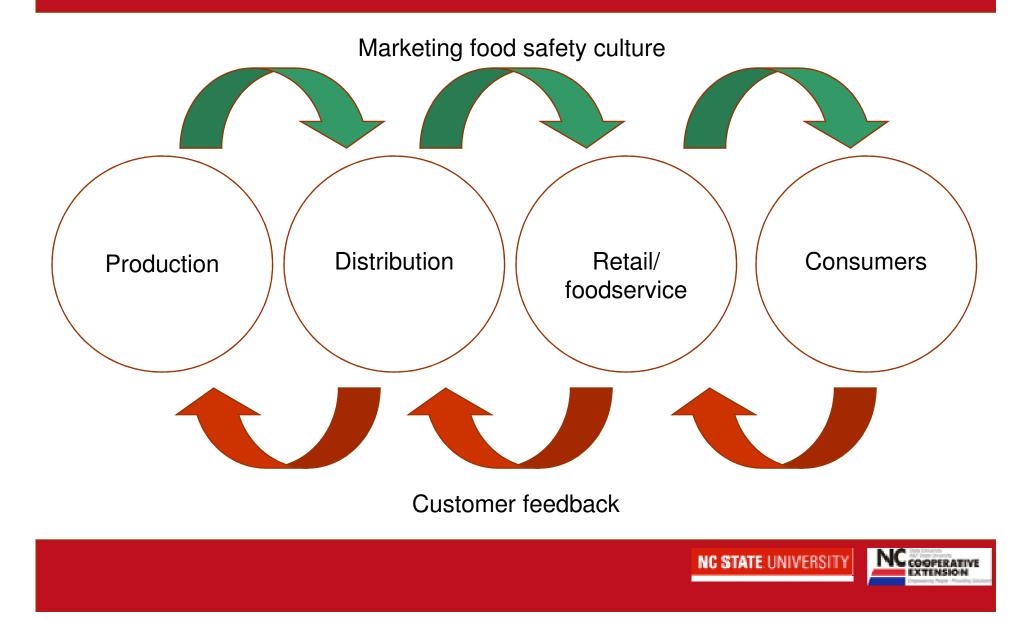
FOOD SAFETY TALK, EPISODE 4

FRIDAY, OCTOBER 7, 2011 AT 02:29PM

Episode 4 of Food Safety Talk. In which Ben and Don can't mesh their schedules, so Don interviews Michael Batz, who turns out to be just as big a food safety nerd as Don or Ben. Like certain other podcasters, Batz insisted on using WiFi rather than a wired Ethernet connection as suggested by the experts. Although he promised to "sit real close" to his wireless base station, the quality of the call degrades toward the end. Don was prepared to drop in a few choice sound effects in case Mike dropped out completely, but in the end everything Mike had to say made it into the recording.









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May 6, 2010 in E. coli, Farm, Food Handling | by Ben Chapman | Leave a comment

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RECENT SHEETS

Romaine lettuce linked to E. coli 0145 outbreak

Tragic story of a child's death linked to E. coli O157:H7 outbreak at Washington daycare

Oops... It happened again: messy diaper changing can lead to illnesses

Raw and steamed oysters linked to recent norovirus outbreaks

Illinois Subway linked to Shigella sonnei outbreak

RISKY PRACTICES



Empowering August - Anwelling Sol

Dr. Ben Chapman benjamin_chapman@ncsu.edu 919 809 3205 Follow me on twitter @benjaminchapman Biweekly podcast at foodsafetytalk.squarespace.com Chapmanfoodsafety.wordpress.com www.foodsafetyinfosheets.com www.barfblog.com

