

New Approaches in Food Safety Communication

July 19, 2007

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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."

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



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



INTERNATIONAL Food Safety NETWORK

Bucknell Nutrition Conference

Burden of foodborne illness in developed world

- in -

- Canadian estimates: 11-13 million
- Preventable outbreaks (if everyone did what they were supposed to) happen weekly cost millions

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Collection of food safety geeks

- Varied backgrounds
- Farm-to-fork
- Listserve/media provide us with direction
- Research
- Extension and teaching

KSSTATE UNIVERSITY OF GUELPH

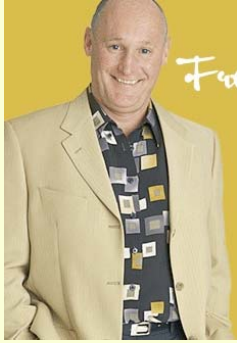


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Fall 2006 produce outbreaks

Month	Suspected Food	Pathogen	Cases
July-Sep	Tomatoes	<i>S. Newport</i>	106
Aug-Sep	Spinach	<i>E. coli</i> O157	200, 4 dead
Sep-Oct	Lettuce	<i>E. coli</i> O157	30
Sep-Oct	Carrot juice	<i>C. botulinum</i>	7
Oct-Nov	Tomatoes	<i>S. typhimurium</i>	183
Nov-Dec	Lettuce	<i>E. coli</i> O157	71
Nov-Dec	Lettuce	<i>E. coli</i> O157	80



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

FDA public hearings on produce food safety

- In Washington, March and April 2007
- 8 questions to participants including:
 - how should practices be changed?
 - are federal actions needed
 - what records are supposedly kept? Are they being done? What changes are needed?
 - how do you measure adherence to standards?

U.S. super agency

- Food Safety Administration
- Imports
- Domestic
- Produce is the big driver right now
- 12 federal agencies, 35 laws govern food safety

Regulations??

- Florida tomato growers are asking the state legislature to require inspections
- Not mandatory, but industry asking for policing
- "We want mandatory inspections to bring everybody that handles tomatoes in the state in the loop to comply with food safety," said Tony DiMare, vice president of Homestead-based DiMare companies
 - April 2, 2007 Palm Beach Post

Witty Willie

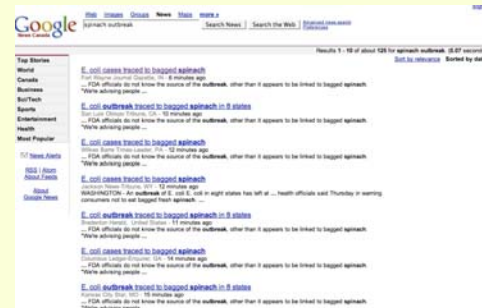
- public statement regarding being caught with a bag of Marijuana
- "It's a good thing I had a bag of Marijuana instead of a bag of spinach. I'd be dead by now."



How big was the story?

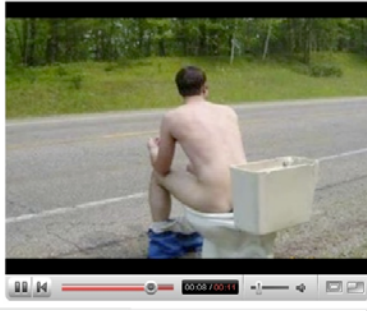


Google 8:30pm September 14

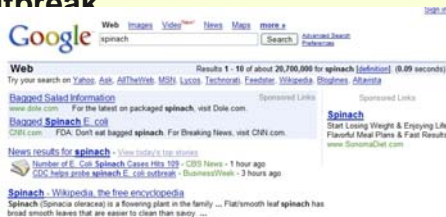


Youtube September 19

Spinach Health Advice - Funny

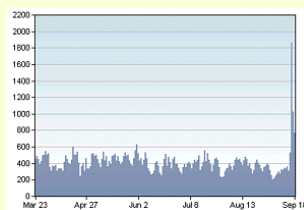


Using Google ads during the outbreak



- Where are the spinach producers/Western Growers Association
- Dole's homepage comes up, not food safety

Technorati reporting on blogging during an outbreak



- Usually there are 200-400 blogposts on spinach each day
- The three days following the outbreak there were in excess of 1800/day

<http://www.bloggersblog.com/foodblogs/>

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Blogs 11:00pm September 14

LiveJournal

Current mood: worried

E. Coli
Hi piggie-parents!

I just read some articles online about an E. Coli outbreak that's been traced to bagged spinach. There have been cases reported in eight states and one death. There's no word as to what specific brand of spinach, yet.

Here's a link to the article at CNN:
<http://www.cnn.com/2006/09/14/health.spinach.ap/>

I'm posting this here because I'm sure some of you feed your piggies fresh spinach. I know I do. In fact, I bought a bag tonight, but I can assure you I'm not taking any chances by feeding it to my boys!


kris xx

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Taco bell testing all lettuce

- Lost an estimated \$20 million
- "We have rapidly put in place farm ... testing of our lettuce supply to add another level of testing,"
 - David Novak, chairman and chief executive of Louisville-based Yum Brands



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Late Show with David Letterman

December 11, 2006

Top Ten Questions To Ask Yourself Before Eating At Taco Bell

10. "Are my affairs in order?"
9. "Why is the counter kid wearing a hazmat suit?"
8. "Will the hot sauce kill the bacteria?"
7. "Is this how they poisoned that Russian spy?"
6. "Do I really want to succumb to a taco-related death?"
5. "Should I go somewhere safer for lunch like Falujah?"
4. "Will this help me meet the recommended E.coli daily requirement?"
3. (No number 3 -- writer ate a bad chalupe)
2. "What would Kristie Alley do?"
1. "Wait -- when was Taco Bell *not* tainted with E. coli?"

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The FDA and Farm Animals

Mean people fed me melamine scrap. If you eat me, you'll eat dangerous chemicals too.

The FDA announced last week that the melamine that made its way into animals for human consumption, like pigs, chickens, and fish, were at a toxicity level of 1/2000th the level that is considered dangerous for humans. They were wrong. This week they announced the levels are 1/200th, a much higher level of toxicity.

The melamine level tests the FDA is using were obtained to be accurate to 10 parts per billion last week. This week they claim the test is far less accurate: 10 parts per billion. Last week the FDA's

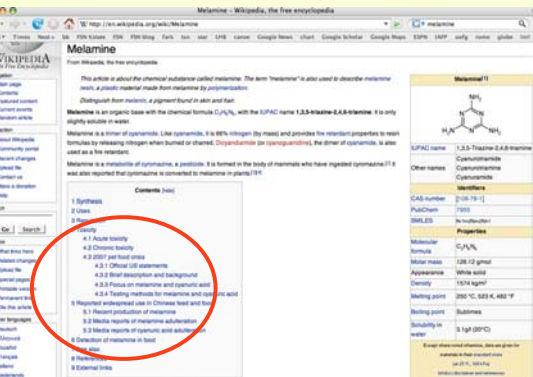
Reader Community

Make a loan Change a life



Menu foods recall

- Media focusing on imported food
- Government/regs, not supplier requirements
- Who buys the products?
- Coverage went to human foods quickly



Meat Company Blames E. coli on Supplier

- "... blaming the contamination on the slaughterhouse that processed the meat."
- "Steve Wood, vice president for Merced-based Richwood Meat Co. Inc., said he does not know which slaughterhouse provided the meat"

□ AP April 22, 2007



RICHWOOD MEAT COMPANY
an employee owned company

A company/industry will emerge take the market

- This company will:
 - Be part of a industry united from farm to fork
 - Anticipate that outbreaks will happen
 - Know their product, risks and how to manage
 - Know what happens to pathogens in the system
- They will communicate
 - Show compassion
 - Provide what they do -- open and transparent
 - Say products come with risks
 - Market food safety and back it up with data

A company/industry will emerge take the market

- They will not:
 - Blame their customers
 - Charge more for food safety
 - Say we've never made anyone sick and we've been doing this for x years.
 - Say the product you buy from us is risk-free, safe, guaranteed, etc.

Peanut butter, the new spinach

- 23-year-old Katie Kuba, who looked skeptically at the peanut butter shelf at her neighborhood Shaw's store in Dorchester after learning about the push to purge the shelves of Peter Pan, was quoted as saying:
 "It's alarming that it's something like peanut butter. You wouldn't think peanut butter, it's mostly spinach."
 February 16, 2007 Boston Herald (MA)

Story with legs May 7, 2007



- "First there were national headlines over a norovirus outbreak at a local Olive Garden"

Food safety in popular culture

Searches	Most Common	Most Recent
info on my illness	1	2
columbus, oh my chemical romance salmonella	1	1
william and mary food poisoning	1	1
my food poisoning	1	1
measurements of food poisoning	1	1
concert william and mary salmonella outbreak	1	1
my chemical romance kansas city food	1	1
safe poisoning	1	1
my chemical romance food poisoning honors	1	1
green leafy salmonella williamsburg	1	1
what caused the band my chemical to become...	1	1
missa food poisoning survivors	1	1
william and mary food poisoning	1	1
missa my chemical romance salmonella	1	1
My Chemical Romance and salmonella	1	1

Concerts cancelled due to food poisoning



The nationwide tour of My Chemical Romance was brought to a halt this past weekend after band members were struck with food poisoning.

The band was in Williamsburg, Virginia last Monday for a concert at Williams and Mary college, where 10 members had both fevers and stomach issues starting all day leading to the director of the venue the illness could likely come from either a single meal eaten on the day. The band was forced from The College Center for an unspecified amount of time before they returned on Tuesday.

In other news, the International Food Safety Network has announced it will be holding a meeting at the University of Maryland in College Park, Maryland on February 17, 2007. The meeting will focus on food safety and food security in related products.

For more news, visit the International Food Safety Network website at <http://www.foodsafety-network.org>. Or if you can't wait, check out our new magazine with food poisoning and food safety in related products.

Need to know where people are talking

- Monitor products, industry, issues
- Youtube
- Google news/alerts
- Facebook
 - Ontario Government recently banned facebook



Best headline

- Peanut butter lawsuits spreading
 - Associated press - February 17, 2007



Hypothesis

- Lawsuits and the coverage generated through them raises the profile
- Dole, Taco Bell, Peanut Butter are now part of pop culture -- lawsuits contribute
- There is an extra incentive to not make people sick
 - In Canada, this is different



Potential problems leading to litigation

- Use of contaminated raw food
- Cross-contamination
- Poor personal hygiene
- Poor sanitation of equipment
- Temperature abuse

Differences

- U.S.
 - Tremendous coverage of food safety issues, lawsuits prevalent
- U.K.
 - Public outcry and coverage of outbreaks leads to inquiries
 - Fines appear to be increasing, criminal offenses
- Canada
 - Little outrage, coverage, no fines/little lawsuits

Canadian complacency

- Sprouts 2005
 - 650 ill with Salmonella -- no lawsuit
- Peter's drive-in, Calgary
 - 13 cases of *E. coli* O157:H7, dialysis for one patron



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News & Events

News Releases

Indiana Firm Recalls Frozen Stuffed Chicken Entrees Associated With Illnesses

Recall Release
RC-FSIS-09-2006

**CLASS 1 RECALL
HEALTH RISK: HIGH**

Congressional and Public Affairs
(202) 720-9113
Amanda Eamich

WASHINGTON, March 10, 2006 - Serenade Foods Division, a Millers, Ind., firm, is voluntarily recalling approximately 75,800 pounds of frozen stuffed chicken entrees that may be unhealthful and therefore unfit for food, the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) announced today. The recalled products must be cooked to a minimum internal temperature of 165 °F.

The raw chicken entrees, because of their frozen state, labeling, and cooked appearance, may have caused consumers to believe these raw products are pre-cooked and therefore consumers may not be cooking these products to a safe temperature. Because of these characteristics, consumers may not be following cooking instructions. The products were contaminated with *Salmonella* Enteritidis that causes human illness. Illnesses have been linked directly to these products through case history of the patients and through microbiological testing of both the products and affected consumers.

**USDA Meat & Poultry Hotline
1-888-MPHotline**

Cause for consumer confusion?



Product packaging of fully cooked vs. uncooked products



Similar appearance of fully cooked and uncooked breaded products

USDA / FSIS letter to industry



- Letter to industry regarding frozen uncooked poultry (20 march 2006)
- Labeling concerns (inadequate)
- Modifications necessary

Salmonellosis outbreaks associated with products

LOCATION	CASES	AGE RANGE	ETIOLOGY	DURATION OF OUTBREAK	PRODUCT (S) INVOLVED
South Australia	9	1 to 56 years (8/9 cases < 17 years)	S. Typhimurium	April 1998 – June 1998	Chicken Nuggets
Minnesota	33	1 to 77 years (median 17 years)	S. Typhimurium	August 1998 – January 1999	Stuffed Chicken Breast – Chicken Kiev
British Columbia, Canada	23	1 to 85 years (median 16 years)	S. Heidelberg	January 2003 – April 2003	Chicken Nuggets and Steaks
Minnesota	4	Not Identified	S. Heidelberg	January 2005 – March 2005	Stuffed Chicken Breast – Chicken Broccoli/Cheese
Minnesota	27	5 to 85 years (median 31 years)	S. Enteritidis	August 2005 – July 2006	Stuffed Chicken Breast – Chicken Kiev, Cordon Bleu, and Shrimp & Crab
Minnesota	3	Not Identified	S. Typhimurium	April 2006 – June 2006	Stuffed Chicken Breast – Chicken Mushroom in Wine Sauce, Kiev, Broccoli & Cheese, Mushroom and Cheddar, and/or Romanov.

Kitchen observation study

- Participants asked to prepare poultry product of concern
- Cameras positioned in model domestic kitchen
- Food-handling behavior coded (label reading, incidences of cross-contamination, thermometer usage...)
- Results to inform laboratory study (validate cooking instructions based on known behaviors)

Use of products?

- How do you know that they are being used as intended?
 - concentration problems in cleaning and disinfection?
- What are the consequences for industry if they are not?

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

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 severe 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

Objectives

- To investigate compliance to hand hygiene at the peak of an outbreak investigation
- To assess cognitive factors related to hand hygiene

Outbreak and project timeline

Jan 30, 2006	Public Health notified
Feb 1	Outbreak announced / Outbreak team meeting
Feb 2	50 or 60 recorded ill
Feb 8	155 confirmed ill
Feb 9, 10	Observation (n=357)
Feb 15	Outbreak declared over 253 students 7 staff
Mar 30-Apr 3	Survey administered (n=100)

} Study

Methodology

- Combination of different research methodologies
- Provides more illuminating evidence of intervention impact and/or effects
 - Covert observations (n=357)
 - Self-report surveys (n=100)
 - Long interviews (n = 6)

Covert observations



Observation results

			Used hand sanitizer		Total
			Yes	No	
Gender	Male	Count	16	97	113
		% within gender	14.2%	85.8%	100%
	Female	Count	46	198	244
		% within gender	18.9%	81.1%	100%
Total		Count	62	295	357
		% within gender	17.4%	82.6%	100%

Self-report survey



Key survey results

- Of those who reported they were ill (n=37):
 - 48% reported to health services
 - 21% continued to attend class
 - 24% continued to visit eateries

Key survey results cont'd

Beliefs toward hand hygiene

- Most respondents considered they knew recommended guidelines on hand hygiene (mean = 5.8)

Perceived adherence:

- 64% of respondents ALWAYS perform hand hygiene as recommended
- But...only 20% of their peers ALWAYS performed hand hygiene as recommended

Key survey results cont'd

■ Social aspect of hand hygiene

- Observed vs. perceived effect
- Respondents uncertain if personal hand hygiene behavior influenced that of peers (mean 3.8)
- And uncertain if hand hygiene behavior of peers influenced personal hand hygiene (mean 3.8)

Key survey results cont'd

- “What effect did the outbreak have on your hand hygiene?”
 - 68% increased practice
 - 32% no effect
- “How did you first hear about the outbreak?”
 - “Violent screams in hall due to explosive diarrhea”
 - “Brianna puked”

Conclusions

- Human behavior is key
- Education alone ≠ application of knowledge gained
- Re-evaluate sanitized messages
- Providing easy access to tools does not necessarily improve desired practices
- Improving safety culture at societal level, merits emphasis

Following U of G norovirus outbreak

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

You NEVER know what other people have been dealing with...



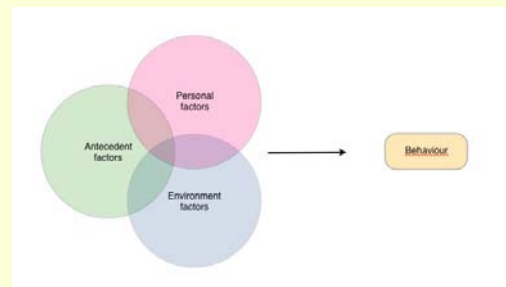
WASH YOUR HANDS!!!

For more information about norovirus, visit our Web page (below content)

STUDENT HEALTH SERVICES

Walk-In Clinic	Registration	Diagnosis
Monday - Friday 8:00am - 5:00pm	Monday - Friday 8:00am - 5:00pm	See 2013-14 Registration
Saturday 9:00am - 12:00pm	Saturday 9:00am - 12:00pm	
Emergency 24/7	Emergency 24/7	
2013-14 Hours of Service	2013-14 Hours of Service	

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Safety culture

The set of beliefs, norms, attitudes, roles, and social and technical practices concerned with minimizing exposure of employees, managers, customers, and members of public to conditions considered dangerous

Source: Turner, Pidgeon, Blockley, and Toft (1989)

Elements of a “good” safety culture

- Norms and rules for handling hazards
 - What is / is not a significant risk
 - Appropriate response
- Attitudes toward safety
 - Concern for outcome of dealing with risks
 - Internal motivation to conform
- Reflexivity on safety practice
 - Learning process
 - Incident feedback and potential warnings

Source: Pidgeon, 1991

Info sheets - project objectives

- Raise awareness of current outbreak and food safety information
- Encourage desired food hygiene practices within the target group of foodservice and retail employees
- Shape food safety communication into more dialogical, and interactive exchange of information



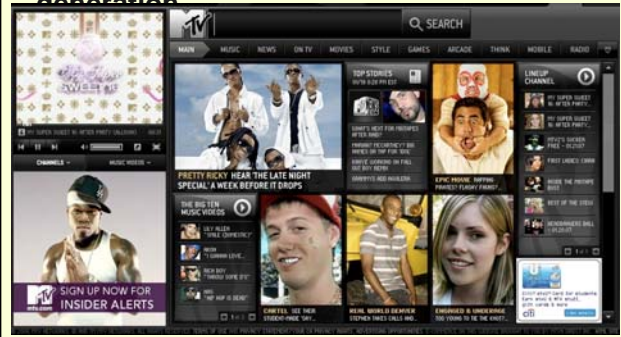
Foodservice employee profile

■ Typical employee

- Female (56%)
- Under 30 years of age (52%)
- High school graduate or less (65%)
- Part-time employee, working average of 24.8 hours/week
- Individual with a relatively short job tenure

Source: National Restaurant Association, 2006

Rallying for the attention of an MTV generation



Hepatitis A



Hepatitis A outbreak update: 190 shots given

Infected food worker may have passed Hepatitis A to customers through food

ADIRIVILLE - Officials at the Buncombe County Health Center say they've given 190 shots of immune globulin to people so far. 3:30 p.m. today to prevent the spread of Hepatitis A after the virus was confirmed in two people, including one worker at the Elmore Village restaurant. Don-Paula Saffell & Pines. The health center urges anyone who ate at the restaurant between Aug. 17 and Aug. 22 to get the shot.

Hepatitis A shots

Number of shots given today: 30
 Total number of shots given: 190
 Number of people who ate at Elmore Village: 14,000
 Number of people who ate at Elmore Village between Aug. 17 and Aug. 22: 400
 4 deaths

Handwashing and good personal hygiene help control the spread of Hepatitis A, as well as other many foodborne germs such as E. coli and Salmonella.

What: Hepatitis A vaccine is given as a "pre-pot" series to prevent the illness. The second vaccine is given six months after the first.

People who ate at Elmore before Aug. 17 should be free from exposure to the virus. Anyone who ate at Elmore after Aug. 17 should contact their doctor. Symptoms can include fever, chills, abdominal pain, nausea, vomiting, weakness, jaundice (yellowing of the eyes and skin), and dark urine. Symptoms appear within 15 - 50 days, usually within 30 days, of exposure.

Hepatitis A can be transmitted only by direct contact with infected stool and by indirect contact with contaminated eating utensils, food, and water.

August 20, 2009

For more information contact Don-Paula Saffell at 828/242-1111 or dsaffell@bunco.net.

Does it change what you do? (self-reported)

- Interviews and focus group
- Stories major focus of interview
- Unprobed -- handwashing increases
- "We talk about it back there"
- "I didn't know that there were that many outbreaks"
- One respondent cited time issues
- "Aesthetically pleasing"

To date...

- Distributed to 230 direct subscribers (fwd 2 to 40)
- Posted in 86 restaurants, resorts, and institutional kitchens
- Posted in 33 fraternities and sororities
- Distributed by extension officers and public health inspectors in the U.S. and Canada
- Online database of 295 info sheets - Nov 2002
- Use of blog as a new distribution channel
- To come...translation into Chinese, French, and Spanish

Other infosheet/communication applications



- Animal health
 - Vets
 - Farmers
 - Regulators
- Rapid response instructions
 - melamine type-crises

Food safety communication essentials

- Rapid, relevant, reliable and repeated information
- Compel; beyond just educating
- Get it right; need to back up messages
- From farm-to-fork
- Evaluation



www.foodsafety.ksu.edu
bchapman@uoguelph.ca

Food Poisoning, Foodborne Illness Information and Research - International Food Safety Network - BarfBlog

http://barfblog.foodsafety.ca.edu/

BARFBLOG

MUSINGS FROM THE INTERNATIONAL FOOD SAFETY NETWORK

Published by **INTERNATIONAL FOOD SAFETY NETWORK**

BARF BLOG TOPICS

- Culinary fact
- Culture of food safety
- Food safety communication
- Foodnet
- Food risk
- Food recall
- Food safety
- Food safety education
- Food safety inspection
- Food safety management
- Food safety research
- Food safety training
- Food safety culture
- Food safety education
- Food safety management
- Food safety research
- Food safety training
- Food safety culture

ABOUT THE BLOG

This blog is a central location where IFSN researchers provide rapid and brief commentary about food safety issues, post videos, etc...

Facebook Farce

2012/03/04 11:41:43, 2012/03/01 10:41:43



This report came out yesterday, that bureaucrats, staffers and MPs can't access Facebook from government computers. This is a fun piece of information. Even per part of the huge global social networking online community in Canada, with Toronto being the largest network as cited in the Globe and Mail "with more than 100,000 members, the Toronto network easily beats New York's 100,000 and London's 100,000."

What's this got to do with beef and all things food safety? Well back in January I gave a talk at the Ontario Ministry of Agriculture, Food and Rural Affairs about reaching target audiences with food safety messages. Tablet device, YouTube, videos, Wikipedia and Facebook - sites that all need to be monitored and utilized when trying to communicate with the under 35 crowd. The old mediums (newspapers, press releases, radio reports) just don't cut it as a one-way channel for food safety, and using sites like Facebook allows regulators to dialogue with many Ontarians the way they are comfortable. By having access, the Ontario Government is taking away a potentially great communication tool.



And how will the government know when their communication plans have gone drastically wrong if they can't access Facebook and the Ontario Government doesn't care about food safety? Guess that may pop up. Risk communication is all about engaging stakeholders, getting rid of Facebook access is a step backwards.




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