# **FOOD SAFETY HEADLINES** 2009 What is Safe and What is Not?

#### PROFESSOR P. VINCENT HEGARTY

vhegarty@msu.edu

Founding Director and Professor Emeritus
INSTITUTE FOR FOOD LAWS AND REGULATIONS
MICHIGAN STATE UNIVERSITY, USA

5<sup>th</sup> DUBAI INTERNATIONAL FOOD SAFETY CONFERENCE, February 2010

# WHO: FOOD SAFETY IS CRITICAL TO NUTRITION SECURITY:

Jorgen Schlundt, 20 January, 2010

www.scidev.net/en/opinions/food-safety-is-critical-to-nutrition-security.html

- "Food safety must be systematically integrated into policies and interventions to improve nutrition and food availability."
- "We must focus on food safety as well as nutrition to feed the hungry .... but there are many barriers to safe eating."
- "Food safety as a local health and development problem is rarely acknowledged by decision makers in many developing countries, and is often given little priority by major donors."

### WHO: 10 FACTS ON FOOD SAFETY (2009)

www.who.int/features/factfiles/food safety/en/index.html

- 1. MORE THAN 200 DISEASES ARE SPREAD THROUGH FOOD
- 2. FOODBORNE DISEASES ARE INCREASING WORLDWIDE
- 3. FOOD SAFETY IS A GLOBAL CONCERN
- 4. EMERGING DISEASES ARE TIED TO FOOD PRODUCTION
- 5. MINIMIZE THE RISK OF AVIAN INFLUENZA

### WHO: 10 FACTS ON FOOD SAFETY (Continued:

- 6. PREVENTING DISEASE STARTS AT THE FARM
- 7. CHEMICAL HAZARDS CAN CONTAMINATE FOOD
- 8. EVERYONE PLAYS A ROLE IN FOOD SAFETY
- 9. SCHOOL IS A PLACE FOR FOOD SAFETY
- 10. 5 KEYS TO FOOD SAFETY:

Keep clean

Separate raw and cooked

**Cook thoroughly** 

Keep food at safe temperature

Use safe water and raw materials

# "THE LONG-TERM HEALTH OUTCOMES OF SELECTED FOODBORNE PATHOGENS"

www.foodborneillness.org/CFIFinalReport.pdf (2009)

- Not well understood is the long-term health burden of foodborne diseases;
- Severity of acute foodborne disease varies greatly depending on the pathogen and the vulnerability of the person infected;
- Few guidelines for long-term medical care;
- More research on long-term effects of these diseases

A CONSUMER'S GUIDE TO PROTECTING YOUR HEALTH AND THE ENVIRONMENT



Warren Leon and
Caroline Smith DeWaal
with the Center for Science in the Public Interest

### **SOME FOOD SAFETY ISSUES (2009):**

CHINA: Melamine

USA: Reforming the Food Safety System (Oct. 22, 2009)

• USA: Salmonella --- peanuts

USA: E.coli --- Meats, leafy greens, raw dairy produce

CANADA: Lessons Learned Report - Health Canada's

Response to 2008 Listeriosis Outbreak (Feb. 2009)

• CANADA: Natural Products Directorate Implementation

EU: Acceptable previous cargoes for edible fats and oils

EU: Health claims

• EU: Allergen cross-contamination --- labeling concerns

AUSTRALIA: Raw milk (Proposal P1007)

GLOBAL: Bisphenol A (BPA)

# <u>USA</u>: CONSUMER PRODUCT FRAUD: DETERRANCE and DETECTION

www.atkearney.com/images/global/pdf/Consumer Product Fraud.pdf

• <u>CATEGORIES OF ECONOMIC ADULTERATION</u> (With some examples):

UNAPPROVED ENHANCEMENTS: Melamine

• CONCEALMENT: Salmonella in peanuts

NON-DISCLOSURE: Sulfites in food to hide

deterioration

DILUTION: Water used to dilute milk

MISLABELING: Sunflower oil sold as olive oil

• SUBSTITUTION: Using sugar beet instead of honey

# **CONSUMER ADULTERATION: STUDY FINDINGS**(Continued:

- Food and consumer product safety is becoming a major focus
- Melamine incident was the trigger point
- Industry collaboration is crucial to preventing economic adulteration
- Companies should continue to "raise the bar" on product safety and quality
- Every value chain participant has a role in preventing fraud
- A new baseline for product safety

### CONSUMER PRODUCT FRAUD --STRENGTHENING INDUSTRY COLLABORATION

www.atkearney.com/images/global/pdf/Consumer Product Fraud.pdf

- Establish a Clearinghouse to Share information
- Improve Shared Audit Programs
- Create Basic Ingredient Standards through Collaboration
- Develop Shared Library of Ingredient Reference Samples
- Partner with Academia to Forecast Risk
- Establish Partnerships with Federal and State Governments

# HARVARD BUSINESS REVIEW (Page 82, December 2009) "A STEP-by-STEP GUIDE TO TAILORING YOUR CRISIS RESPONSE"

- 1. ACCESS THE INCIDENT: Adopt the customers' point of view rather than managements' perspective.
- 2. ACKNOWLEDGE THE PROBLEM: Avoid premature statements related to the cause, focus on the process of investigation, and prevent further harm.
- 3. FORMULATE A RESPONSE: Evaluate the benefits and costs of the response in terms of customer relationships over the long run.
- 4. IMPLEMENT THE RESPONSE:

#### **HARVARD BUSINESS REVIEW ARTICLE:**

### **December 2009 (Continued:**

- "Jack in the Box delayed commenting for several days after the *E.coli* outbreak --- and it took the company years to recover."
- "Menu Foods wasn't aware that it had used adulterated gluten in its pet food --- but was negligent in its failure to rigorously test its products."

## EU: ZOONOSES RATES IN CONFIRMED HUMAN CASES IN THE EU IN 2008 (Published December 2009)

#### www.efsa.europa.eu/en/scdocs/scdoc/1496.htm

```
• 190,566 Campylobacteriosis
```

- 131,468 Salmonellosis
- 8,346 Yersiniosis
- 3,159 VTEC
- 1,594 Q fever
- 1,381 Listeriosis
- 891 Echinococcosis
- 670 Trichinellosis
- 619 Brucellosis

### EU: CONFIRMED CASES / 100,000 (2008)

#### 5 COUNTRIES IN DECREASING ORDER OF FREQUENCY

www.efsa.europa.eu/en/scdocs/scdoc/1496.htm

#### CAMPYLOBACTERIOSIS:

**UK (91) Germany (79) Denmark (63) Ireland (40) France (5)** 

#### SALMONELLOSIS:

Denmark (67) Germany (52) UK (19) France (11) Ireland (10)

#### • VEROTOXIGENIC *E.Coli* (VTEC):

Ireland (4.8) Denmark (2.9) UK (1.9) Germany (1.1) France (0.1)

### **UK: "GOOD HYGIENE IS GOOD FOR BUSINESS"**

www.food.gov.uk/news/newsarchive/2010/jan/goodbusiness

"Safer food, better business"

CookSafe and RetailSafe and Safe Catering

- Posters for:
  - Gastro bar
  - Chinese and Indian restaurants
  - Sandwich bar
  - Fish and chip shop
- FOOD STANDARDS AGENCY: (2010) More details at:

www.food.gov.uk/goodbusiness

# CODEX ALIMENTARIUS: SOME NEW WORK IN 2009 <a href="https://www.codexalimentarius.net">www.codexalimentarius.net</a>

- Codex Committee on Food Hygiene:
- Proposed Revision of Principles for the Establishment and Application of *Microbiological Criteria for Foods* (New Work)
- Proposed Draft Risk Analysis Principles and Procedures
   Applied by CCFH
- Proposed Draft Code of Hygiene Practice for Vibrio spp in Seafood (Step 5/8)

### CODEX: 2009 WORK (Continued:

Codex Committee on Contaminants in Foods (CCCF):
 Draft Code of Practice for the Reduction of Acrylamide in Foods (Step 8)

Maximum Levels for *Melamine* in Food and Feed (New work)

- Codex Committee on Food Additives (CCFA):
   Proposed Draft Specifications for the Identity and Purity of Food Additives
- Codex Committee on Methods of Analysis and Sampling (CCMAS): Draft Guidelines for Settling Disputes on Analytical Test Results (Step 8)

# EU: INCREASED LEVEL OF OFFICIAL CONTROLS ON IMPORTS OF CERTAIN FEED AND FOOD OF NON-ANIMAL ORIGIN 24 July, 2009

http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:194:0011:0021:EN:PDF

- COUNTRIES: ARGENTINA BRAZIL CHINA DOMINICAN REPUBLIC GHANA INDIA NIGERIA PAKISTAN THAILAND TURKEY UZBEKISTAN VIETNAM
- FEED / FOOD: GROUNDNUTS (Peanuts) SPICES MELON SEEDS DRIED VINE FRUIT CHILLI, CHILLI PRODUCTS, CURCUMA, PALM OIL BASMATI RICE MANGOS BANANAS PEARS VEGETABLES (Fresh, chilled or frozen)

# EU: REGULATION (EC) No 669/2009 (Continued:

- HAZARDS: AFLATOXINS CADMIUM and LEAD OCHRATOXIN A SUDAN DYES PESTICIDE RESIDUES
- AMENDS Decision 2006/504/EC
- Regulation (EC) No 669/2009 applies from 25 January 2010
- Regulation covers: documentary, identity, physical checks
- Frequency of "physical and identity checks" will depend on foodstuff and country of origin

# US: AGENCIES NEED TO ADDRESS GAPS IN ENFORCEMENT and COLLABORATION TO ENHANCE SAFETY OF IMPORTED FOOD

• September 15, 2009

www.gao.gov/products/GAO-09-873

- Access how:
- Customs and Border Protection (CBP), FDA and USDA address challenges in overseeing the safety of imported food;
- FDA leverages resources by working with state and foreign governments
- FDA is using its Predictive Risk-Based Evaluation for Dynamic Import
   Compliance Targeting (PREDICT) system to oversee imported food safety

### JAPAN: BANS 125 FOOD ADDITIVES October 2009

- 125 ADDITIVES BANNED FROM LIST OF 418 APPROVED ADDITIVES
- REASON: Japan's Ministry of Health Labour and Welfare (MHLW) believes these additives are not currently being used in foods sold in Japan.
- BANNED INCLUDE: Chitin, Isomaltodextranase, Glucosamine, Sweet potato carotene, Ginger extract, Tea extract, L-hydroxyproline, Garlic extract, Grape seed extract

# FOOD PACKAGING: IS BISPHENOL A (BPA) SAFE?

 BPA approved by FDA in early 1960s. Used in baby food bottles and in epoxy resins for internal protective lining for canned foods and metal lids

#### **EARLY IN 2008:**

- FDA (US), EFSA, JAPANESE NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE and TECHNOLOGY --- No current health risk exists for BPA at current exposure levels
- CANADA --- banned sale in plastic baby bottles
- CALIFORNIA --- proposed ban failed
- WASHINGTON STATE (USA) --- proposed ban

### **BPA STATUS --- JANUARY 2010**

- WHO / FAO: Ad hoc expert panel on BPA in 2010
- Concerns on potential toxic and hormonal properties of BPA
- Animal studies --- no convincing evidence of cancer from BPA

www.who.int/foodsafety/publications/fs management/No 05 Bisphenol A Nov09 en.pdf

- USA: Update on Bisphenol A (BPA) for Use in Foods (January 2010)
   www.fda.gov/NewsEvents/PublicHealthFocus/ucm064437.htm
- AUSTRALIA/NEWZEALAND: Bisphenol A (BPA) and food packaging (19 January, 2010)

<u>www.foodstandards.gov.au/educationalmaterial/factsheets/factsheets2010/bisphenolabpaandfood4701.cfm</u>

### **BPA --- JANUARY 2010** (Continued:

- EFSA to evaluate FDA decision on bisphenol A
   www.foodqualitynews.com
   18-Jan-2010
- FDA urged to explain plan for dual regs on bisphenol A
   www.foodqualitynews.com
   28-Jan-2010
- FDA verdict on bisphenol A provokes divided US response www.foodproductiondaily.com 18-Jan-2010
- Consumer group urges bisphenol A and phthalate phase out
   www.foodproductiondaily.com
   12-Jan-2010
- New study confirms bisphenol A link to heart disease
   www.foodnavigator-usa.com
   14-Jan-2010

### **NANOTECHNOLOGY**

 FAO/WHO: Joint FAO/WHO Expert Meeting on the Applications of Nanotechnologies in the Food and Agriculture Sectors: Potential Food Safety Implications. June 2009

www.who.int/foodsafety/fs\_management/meetings/nano\_june09/en/index.html

 EU: The Potential Risks Arising from Nanoscience and Nanotechnologies on Food and Feed Safety (Adopted 2009)

www.efsa.europa.eu/en/scdocs/scdoc/958.htm

• EU: Nanotechnology. Is there a regulatory framework?

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0366:FIN:EN:PDF

### **NANOTECHNOLOGY** (Continued:

 USA: Nanotechnology Public Meeting (2009) --- food and color additives, food contact substances, dietary supplements

<u>www.fda.gov/ScienceResearch/SpecialTopics/Nanotechnology/NanotechnologyTaskForce/ucm111298.htm</u>

 CANADA: Small is Different: A Science Perspective on the Regulatory Challenges of the Nanoscale

www.scienceadvice.ca/documents/(2008 07 10) Nano Report in Focus.pdf

• AUSTRALIA/NEW ZEALAND: Small Particles,

Nanotechnology and Food

<u>www.foodstandards.gov.au/educationalmaterial/factsheets/factsheets20</u> 08/smallparticlesnanote3923.cfm

### **TRACEABLILTY**

CANADA: Literature Review on Food Product Traceability
 Best Practices

www.inspection.gc.ca/english/agen/eval/listeria1-appbe.shtml

USA: Food Product Tracing
 www.ift.org/cms/?pid=1002160

 GLOBAL: Food Product Traceability: New Challenges, New Solutions Food Technology, January 2009

GLOBAL: Traceability in Food Systems

Food Technology, August 2009

### **TRANS FAT in 2009:**

www.guardian.co.uk/society/2010/jan/18/trans-fats-ban-health-faculty

- TRANS-FAT IS BANNED IN: Austria, Denmark,
   Switzerland, California, New York
- UNITED KINGDOM: Faculty of Public Health wants transfats eliminated from the British diet
- PAN AMERICAN HEALTH ORGANIZATION (PAHO / WHO):
   Calls for a "Trans Fat Free Americas"
   www.paho.org/English/DD/PIN/TaskForce Conclusions-17May07.pdf

CANADA and US: Require labeling of trans fat in processed foods

### **CANADA:**

## **TRANS FAT MONITORING PROGRAM:** February 2009

www.hc-sc.gc.ca/fn-an/nutrition/gras-trans-fats/tfa-age tc-tm-intro-eng.php

• % MEETING THE 5% TRANS FAT OF TOTAL FAT LIMIT:

•	92%	Snacks	80%	<b>Pre-packaged</b>	deserts
---	-----	--------	-----	---------------------	---------

• 91% Frozen potatoes 65% Cookies

86% Instant noodles 58% Popcorn

• 86% Crackers

(WHO recommends <1% of total energy intake)</li>

www.who.int/nutrition/topics/5 population nutrient/en/index12.html

#### **DIETARY INTAKE IN:**

**AUSTRALIA:** 0.6%; **NEW ZEALAND:** 0.7% of total energy intake

#### **ALLERGENS**

- EU: Allergens must be declared in 14 categories of ingredients in pre-packaged foods: cereals containing gluten; crustaceans; eggs; fish; soybeans; milk; celery and celeriac; mustard; seseme seeds; sulphur dioxide and sulphites; peanuts; tree nuts; molluscs; lupins
- IRELAND: Food Allergen Alert Service starts January 2010 <u>www.fsai.ie/news\_centre/press\_releases/26012010.html</u>
- **NETHERLANDS:** Allergen cross-contamination raises labeling concerns. "Now and in the future probabilistic allergen risk assessment is a way to calculate the way to calculate the health risk impact of contaminated products....."

Food Additives and Contaminants, Vol. 27, 169-174, 2010

### **UNWASHED HANDS in 2009:**

- NEW ZEALAND: \$86 million / year ---- cost of gastroenteritis from eating unsafe food;
- 40% of this was due to poor food handling in the home New Zealand Herald, May 14, 2009
- USA: "Hand Sanitizers: NOT a Replacement for Handwashing in Food Service Settings" 2009 www.health.state.mn.us/divs/eh/food/fs/handsanifs.html
- USA: "Keeping hands clean is one of the most important ways to prevent the spread of infection and illness" Center for Disease Control and Prevention.

www.cdc.gov/Features/HandWashing

### **HANDWASHING**

- OCTOBER 15: GLOBAL HANDWASHING DAY www.globalhandwashingday.org
- 2<sup>nd</sup> Annual Global Handwashing Day celebrated in > 80 countries
- It focused on children and schools to:
  - Foster /support a global & local culture of handwashing with soap;
  - Spotlight the state of handwashing in each country;
  - Raise awareness about the benefits of handwashing with soap

### **SALT --- THE NEXT PUBLIC HEALTH ISSUE?**

NEW ZEALAND: Take it with a grain of iodized salt.

www.nzfsa.govt.nz/publications/media-releases/2010/2010-02-01-iodine-in-salt.htm

- ALL ARTICLES FROM www.foodnavigator.com
- Salt action varies across Europe
   28-Jan-2010
- Moderate salt cuts could save billions in healthcare costs
   27-Jan-2010
- Kellogg calls for industry wide engagement on salt reduction 29-Jan-2010
- Science: Salt reduction benefits beyond the heart
   26-Jan-2010
- Sea salt rise on wave of premium tasting 29-Jan-2010

### **SHOKRAN**

### **THANK YOU**

**GO RAIBH MAITH AGAIBH**