



# FOOD SAFETY IN A NEW ERA

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# Under Magnifying Glass



In the end it was ...



# Or was it both?



**Those Who Do Not  
Learn From History  
Are DOOMED To  
Repeat It!**

Source: Winston Churchill

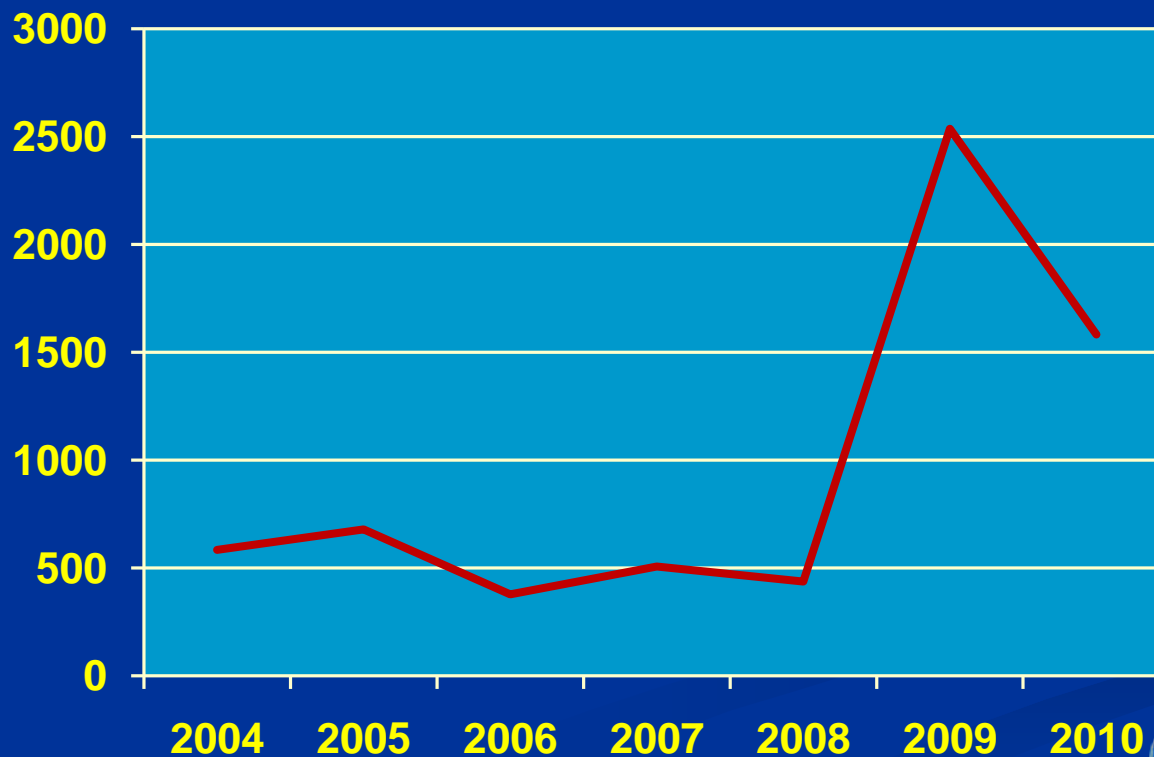


# What can be learn from food safety history?

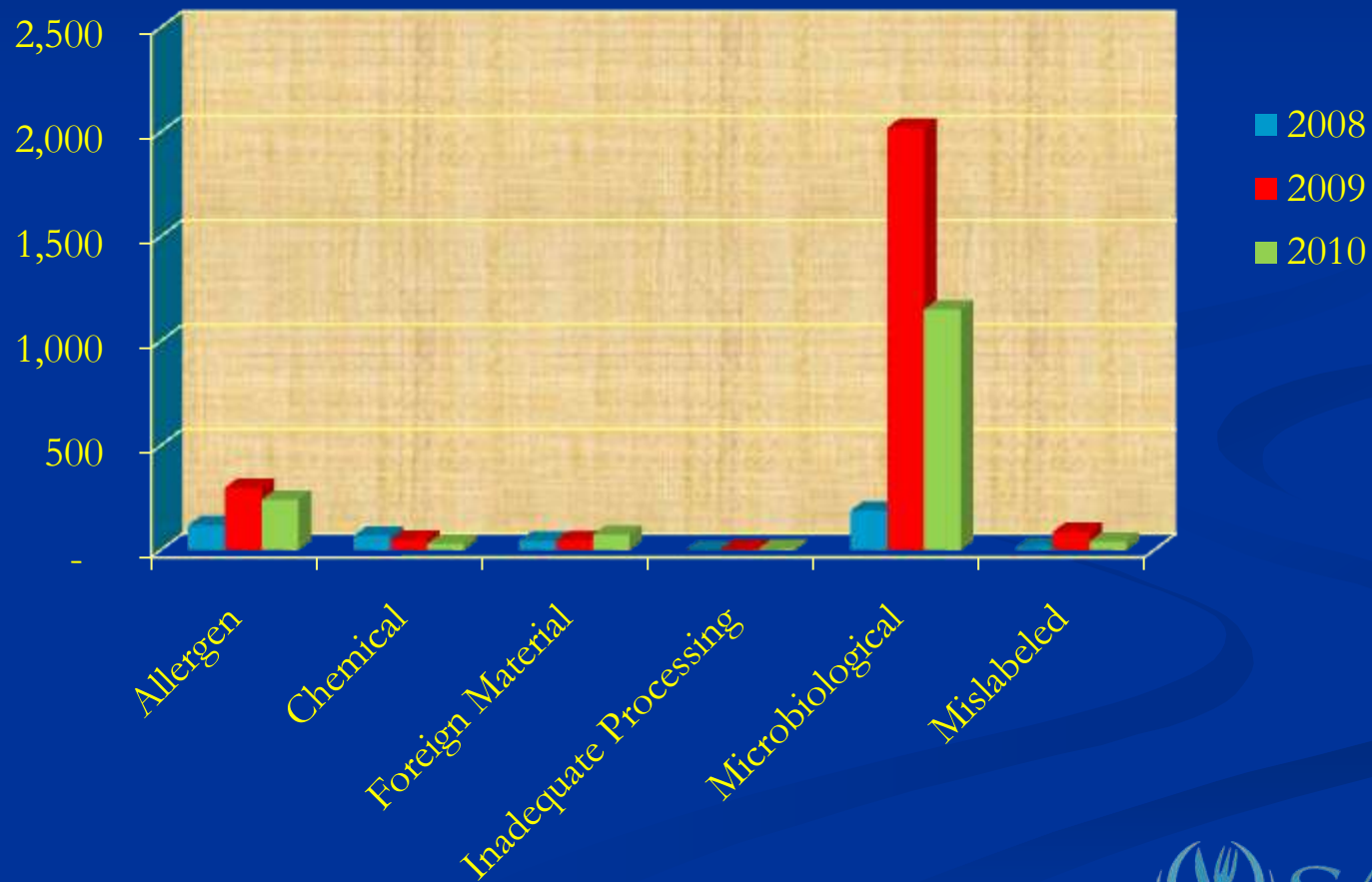
- Recall trends
- Inspection trends
- Epidemiology
- Consumer Concerns
- Prevention Measures

# FDA Food Recall Trends

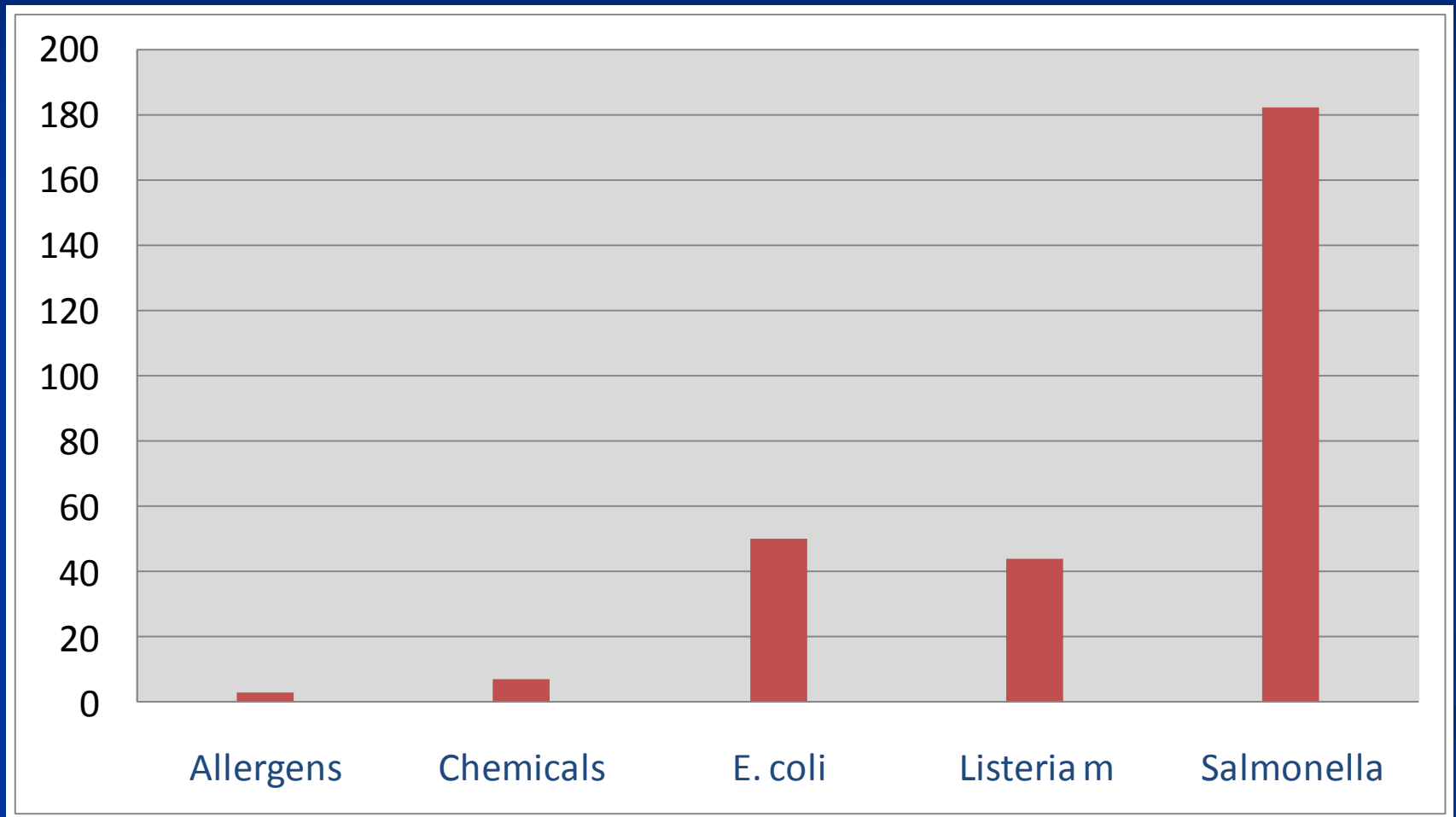
- From 2007 to 2009, FDA Food Recalls increased almost 400%.



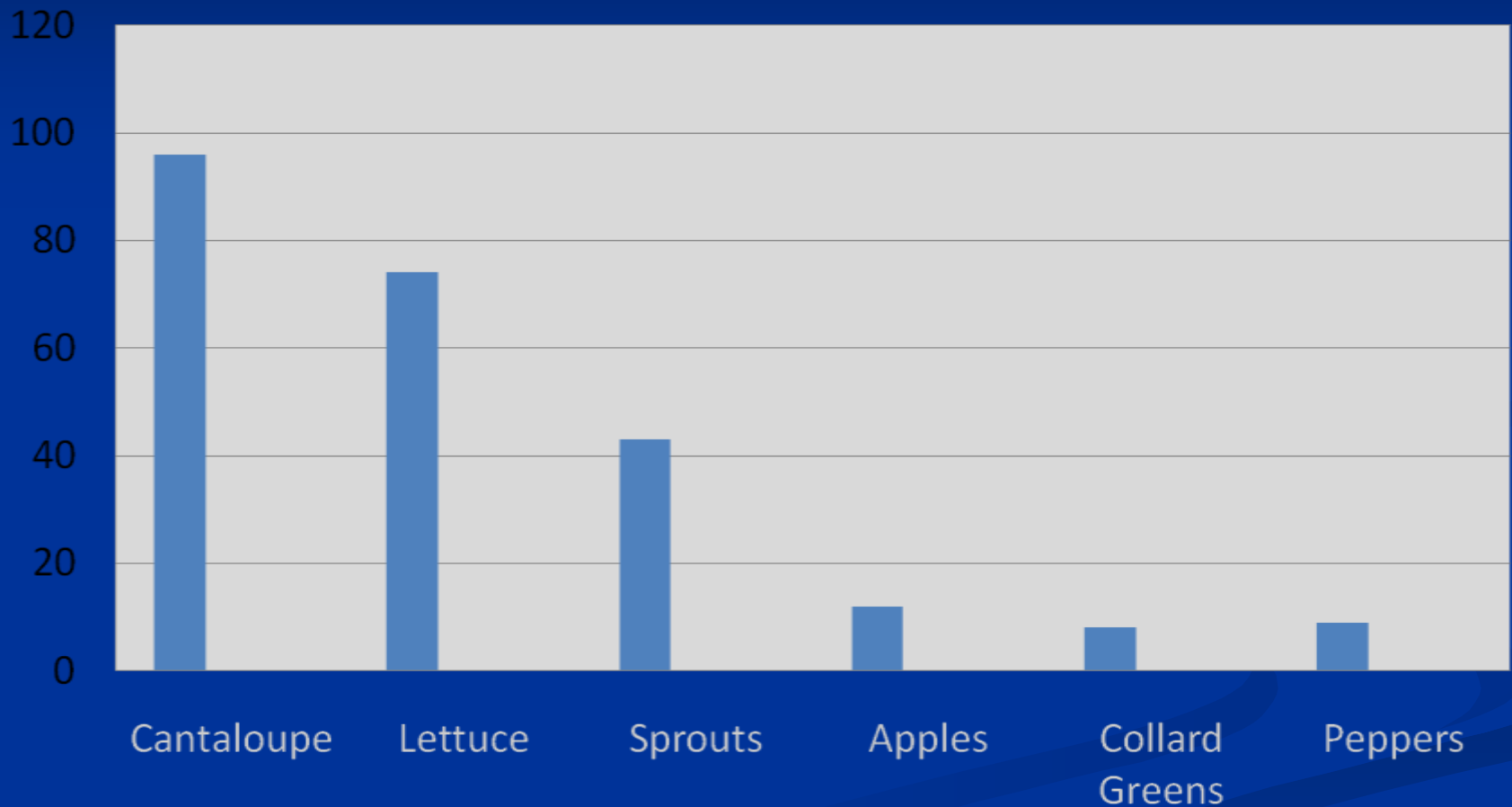
# FDA Food Recalls: By Reasons 2008 - 2010



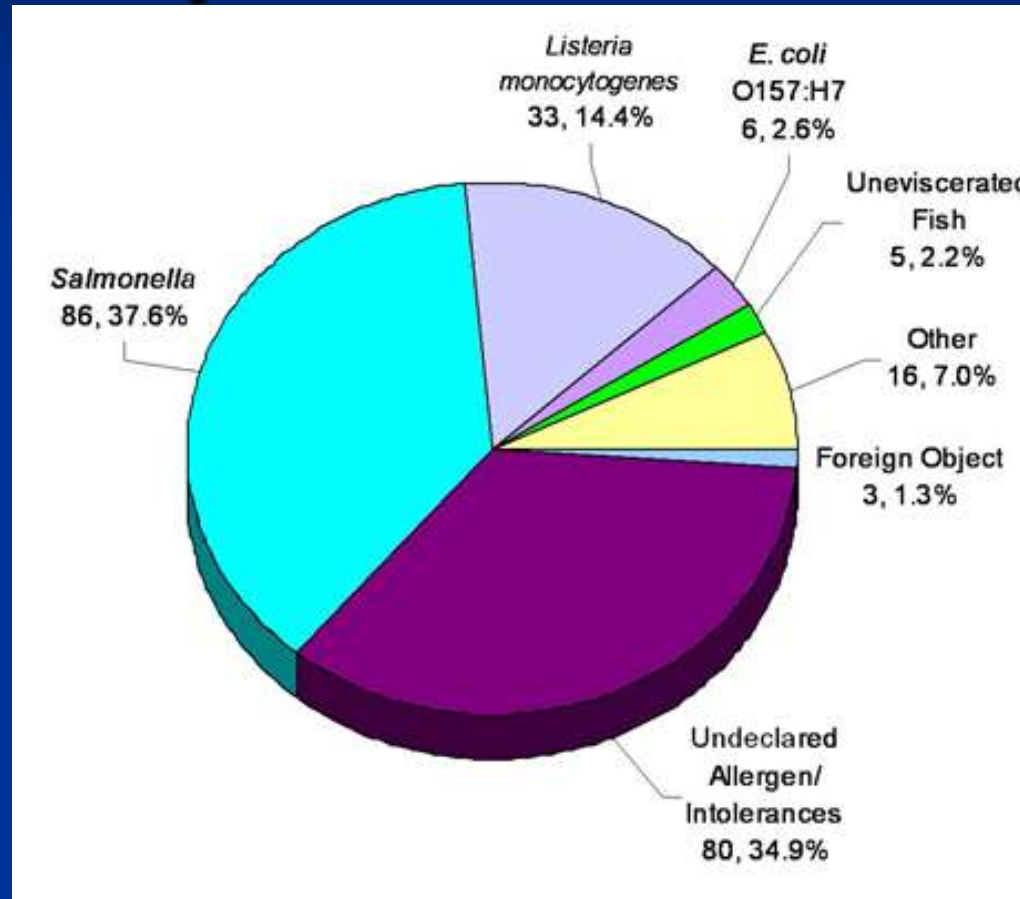
# Reasons for Produce Recalls 2007 -2010



# Common Produce Items Recalled 2008 - 2010



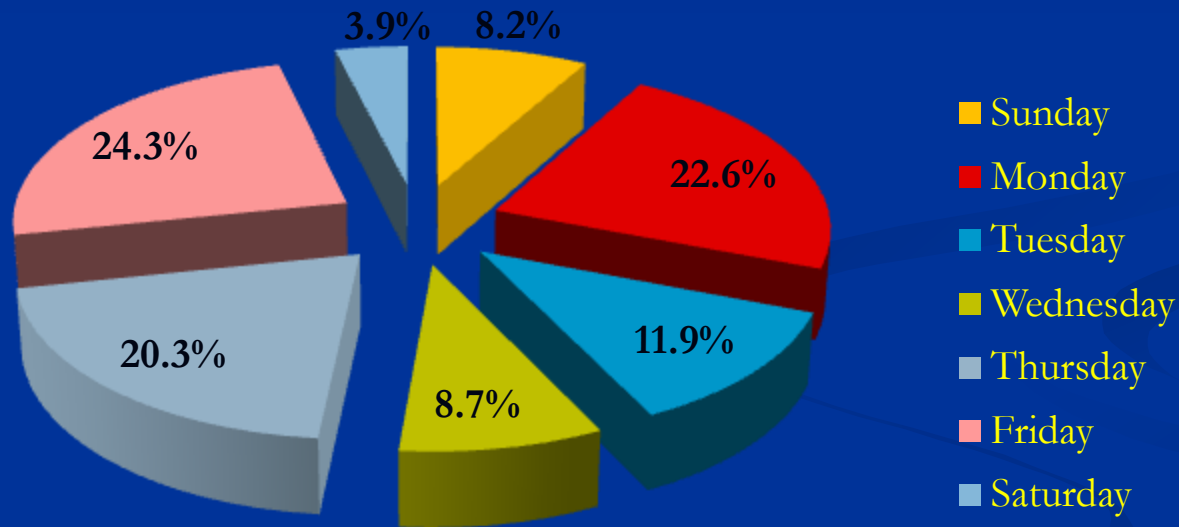
# FDA Reportable Food Registry By Hazard 2010



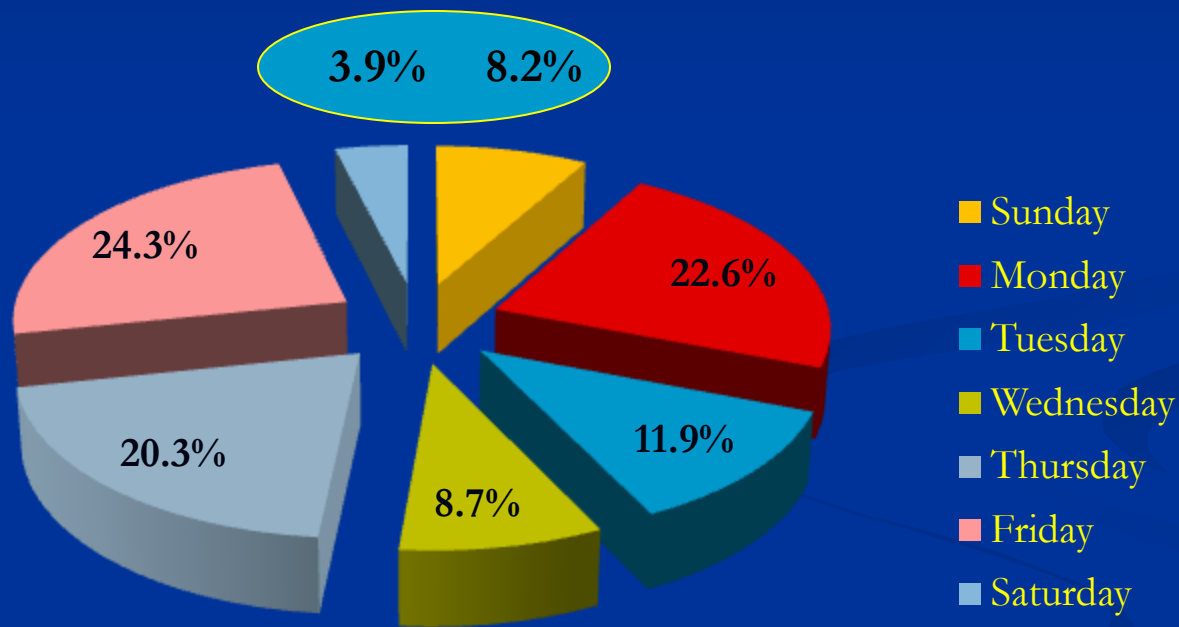
# Do Recalls Always Happen Late Friday Afternoon?



# FDA Food Recalls by Day 2010



# FDA Food Recalls by Day 2010



# Time to Review



# Major Contributing Factors to Recalls

# Major Contributing Factors to Recent Recalls

- Non-Compliance with current Good Manufacturing Practices (published 1978)
  - Good Agricultural Practices (GAP)
- Failure to maintain food processing facilities and equipment
- Non-Compliance with their own SOP's
- Traceability – inability to track product
- Weaknesses in HACCP analysis
  - Knowledge of their product
  - Knowledge of their supply chain

# Evaluations of FDA 483 Citation's Food Facilities January 2009 – September 2010

- 740 Pests in food areas
- 543 Sanitation of food processing
- 469 Facility maintenance for Pest Control
- 422 Sanitary construction and design
- 400 HACCP where required
- 400 Facility & equipment maintenance
- 300 Cleaning & Sanitizing
- 292 Failure to protect and minimize potential of contamination and growth of Microbes

# Economics Of Food Safety Failures

# Product Recalls Are Costly

- Preliminary recall costs reported by firms of recent recalls:
  - \$56,000,000
  - \$35,000,000
  - \$60,000,000
  - \$30,000,000
  - \$37,000,000
  - \$103,000,000
  - \$78,000,000
  - Some firms ceased business
- These costs do not include litigation costs
- Nor does it include the cost in lost sales
- Nor does it include the swings in stock market



# Economics of Food Safety

## Not Included in these Cost

- Cost of restoring the business
- Loss of profits
- Loss of jobs
- Damage to brand value
  - Short term
  - Long term

# Why the increase in Food Safety Issues?

# Why the Change?

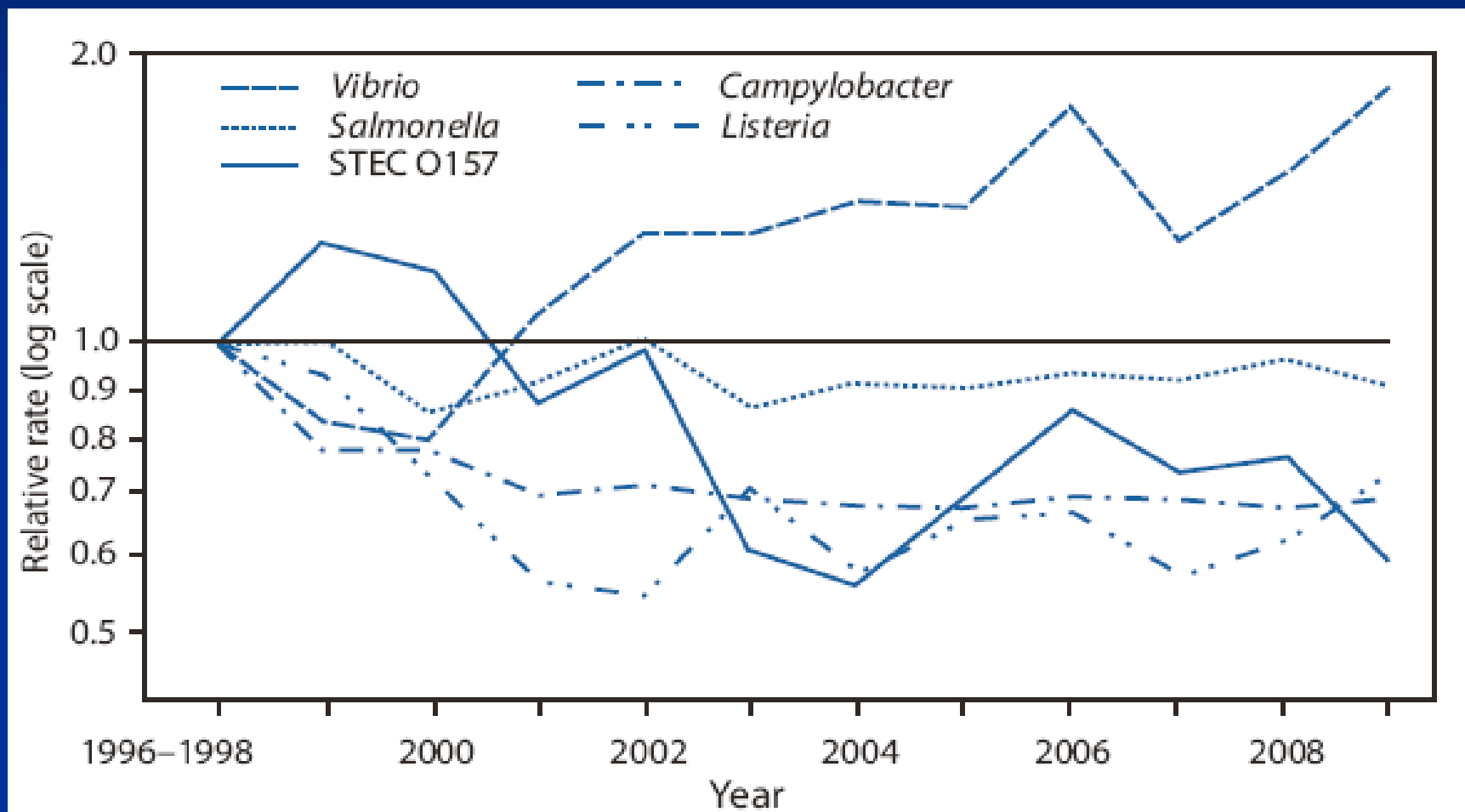
- Food production
- Product changes
- Complexity of food distribution
- Consumer has changed
- Science has changed
- Epidemiology

# Food Net Sentinel Sites



Represents about 15% of US population

# CDC Food Net Surveillance Trends 1996 - 2009



# FoodNet Data 2009

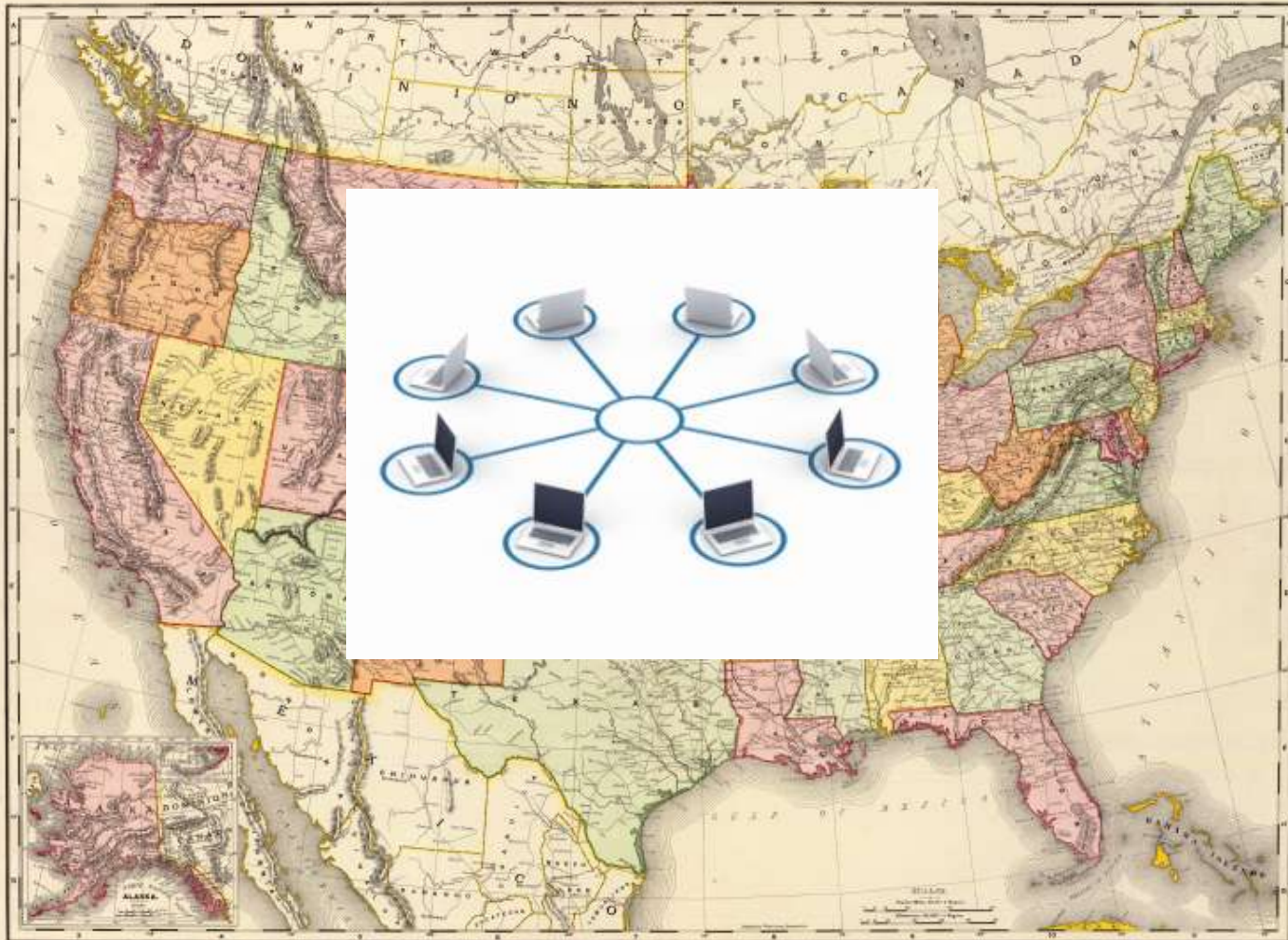
## Incidence per 100,000 Population

Salmonella	15.19	45.2% Hospital'd > 50 age
Campylobacter	13.02	21.3%
Shigella	3.99	29.4%
Cryptosporidium	2.86	24.7%
STEC o157:H7	0.99	59.4%
STEC non o157	0.57	34.2%
Vibrio	0.35	40.7%
Listeria	0.34	94.1% Death rate 25%
Yersina	0.32	43.2%
Cyclospora	0.07	26.7%

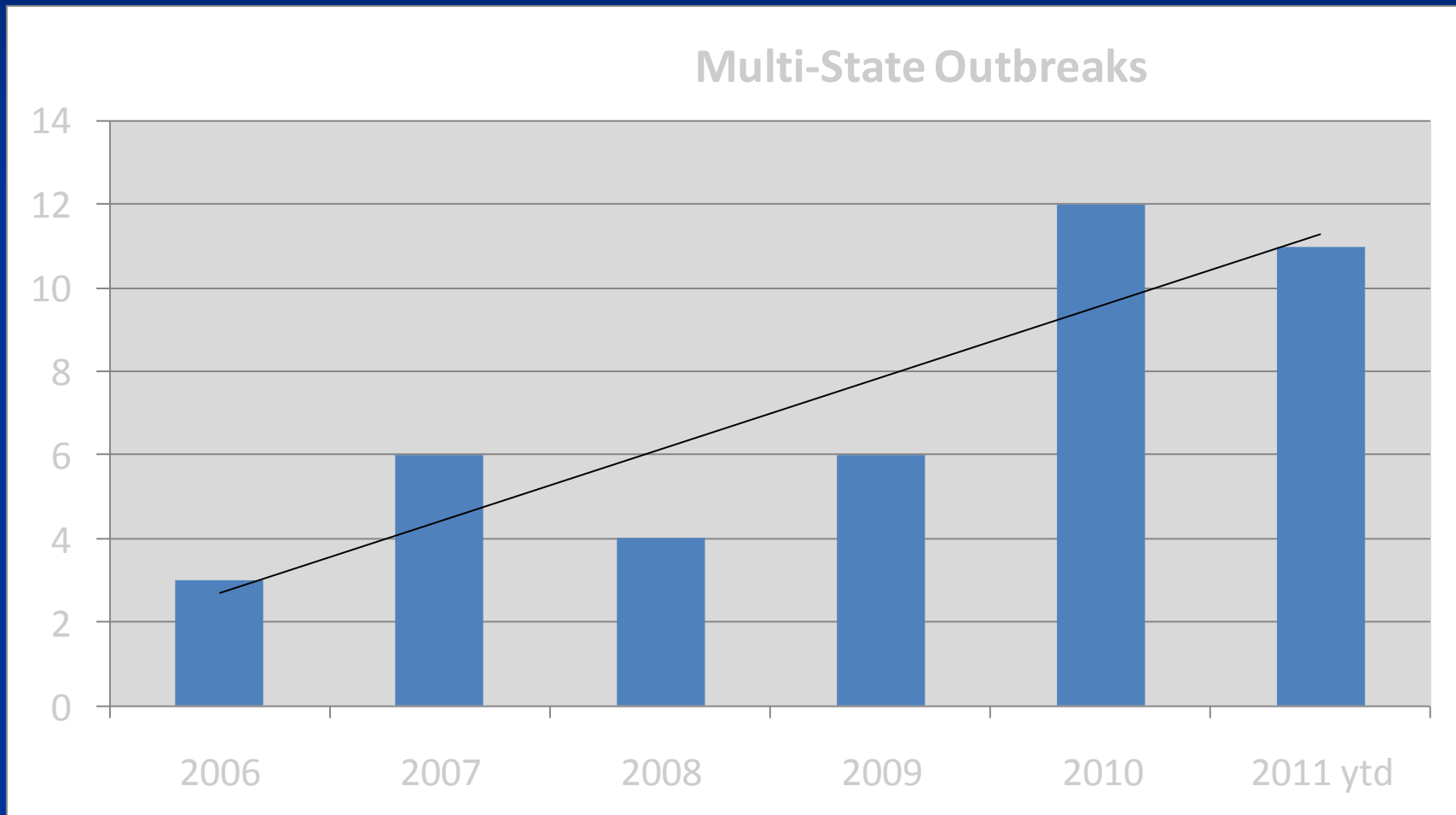
# Center of Disease Control Pulse Net “DNA Technology”



# Electronic Communications



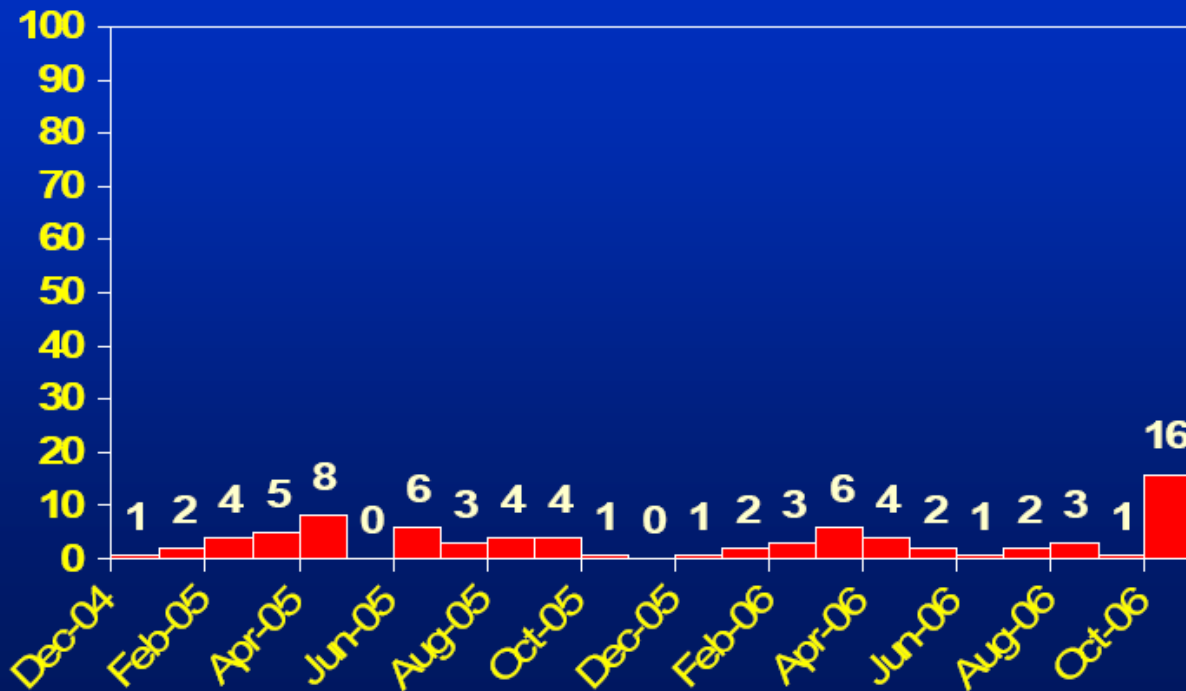
# CDC Multi-State Food Outbreaks 2006 – 2011ytd



# October 2006\*

# Cases of *Salmonella* Tennessee (outbreak type)  
by month, USA 2004 - 2006

\* Preliminary data



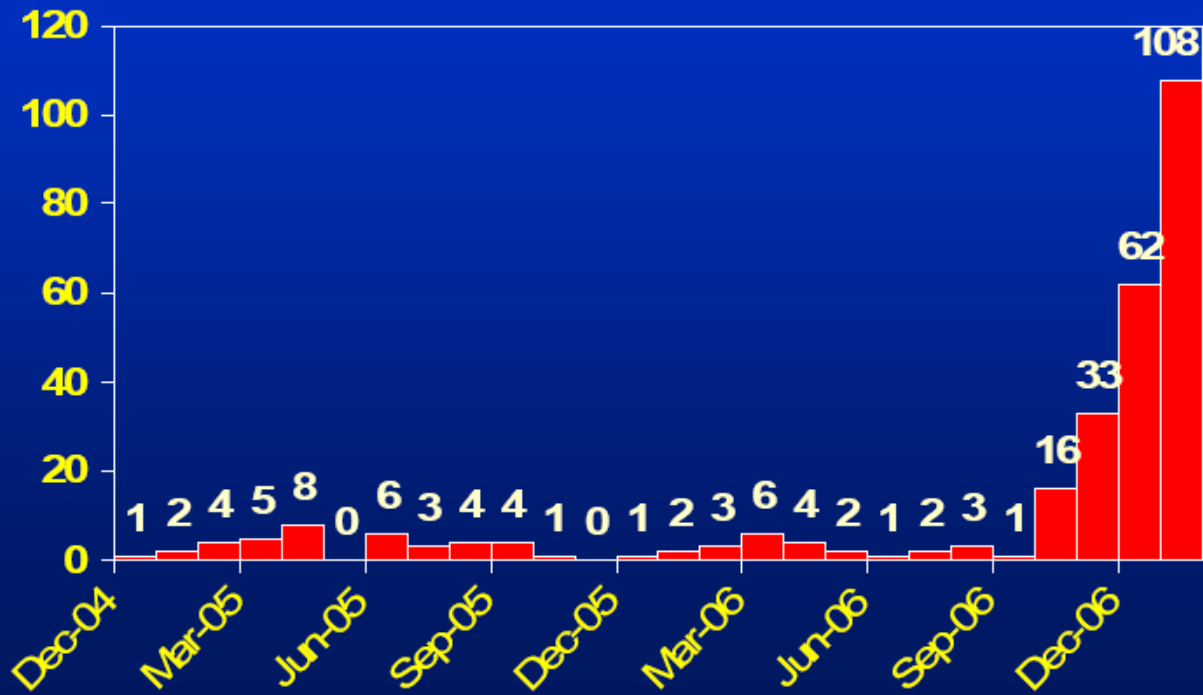
Slide Compliments of Dr. Art Liang Center of Disease Control and Prevention



# January 2007\*

## # Cases of *Salmonella* Tennessee (outbreak profile) by month, USA 2004 - 2006

\* Preliminary data



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## **January 2007\***

Developing possible explanations (hypotheses)

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### **Interviews with sample of cases:**

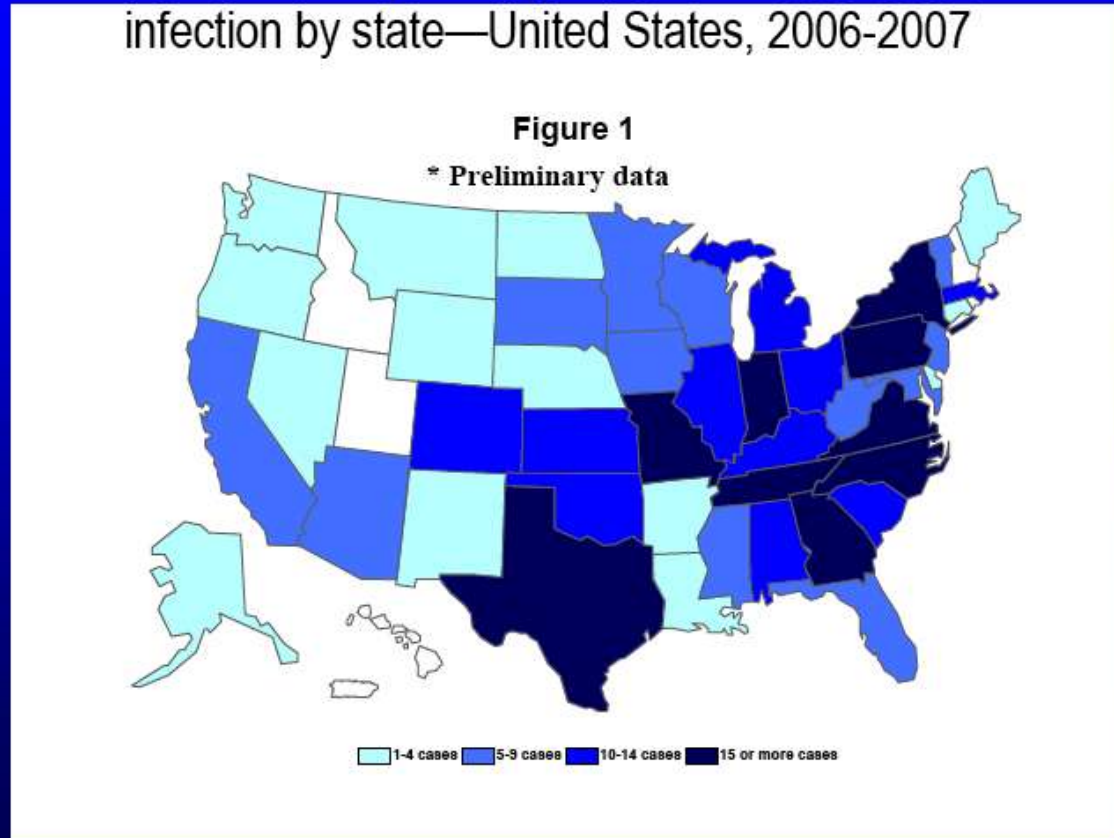
- **01/25/2007 Common exposures:**  
Potatoes, bananas, eggs, peanut butter, pasteurized milk, & apples.
- **Peanut butter eaten more compared with 2002 FoodNet population survey.**
- **01/31/2007 Among, most recent cases:**  
many ate peanut butter, one brand common, no other commonality.

\* Preliminary information

Slide Compliments of Dr. Art Liang Center of Disease Control and Prevention



# Confirmed cases (N=453)\* of *Salmonella* Tennessee infection by state—United States, 2006-2007

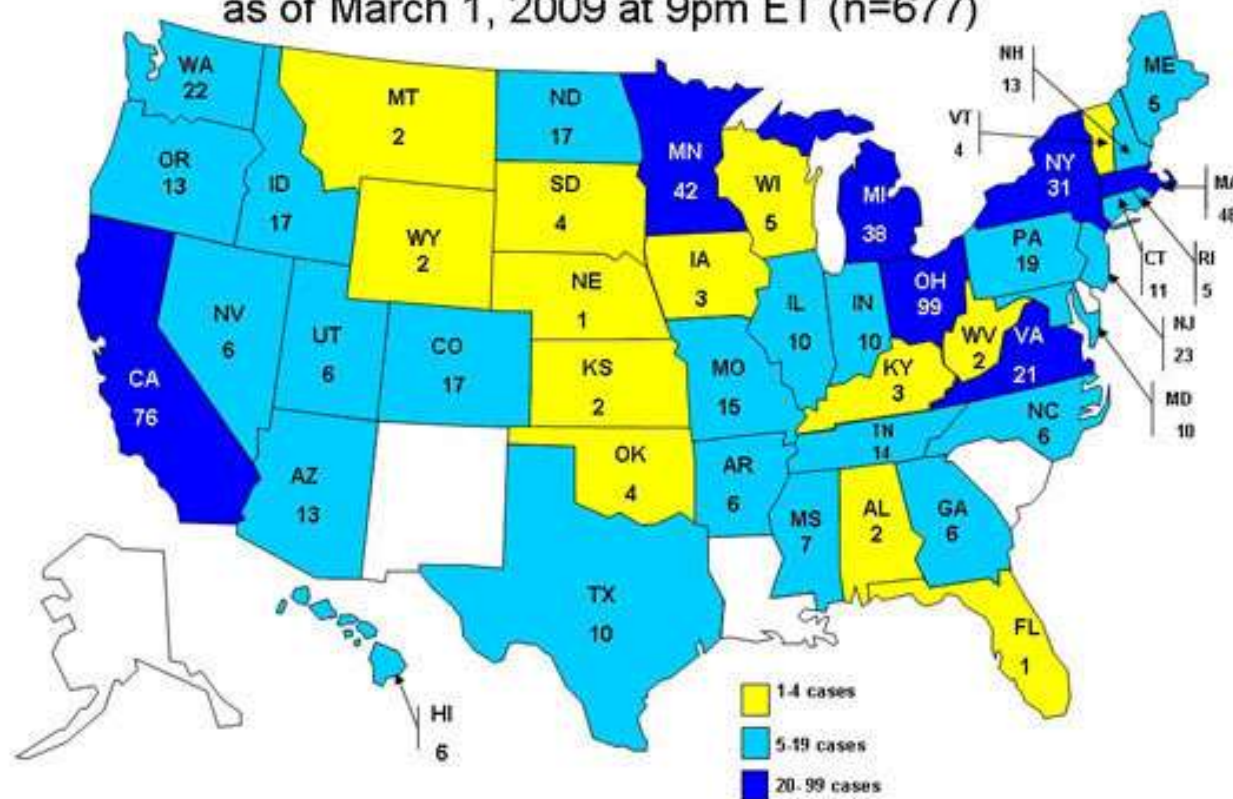


\*Confirmed cases with date of illness onset reported as of 1:00 p.m. EDT on March 14, 2007.

Slide Compliments of Dr. Art Liang Center of Disease Control and Prevention

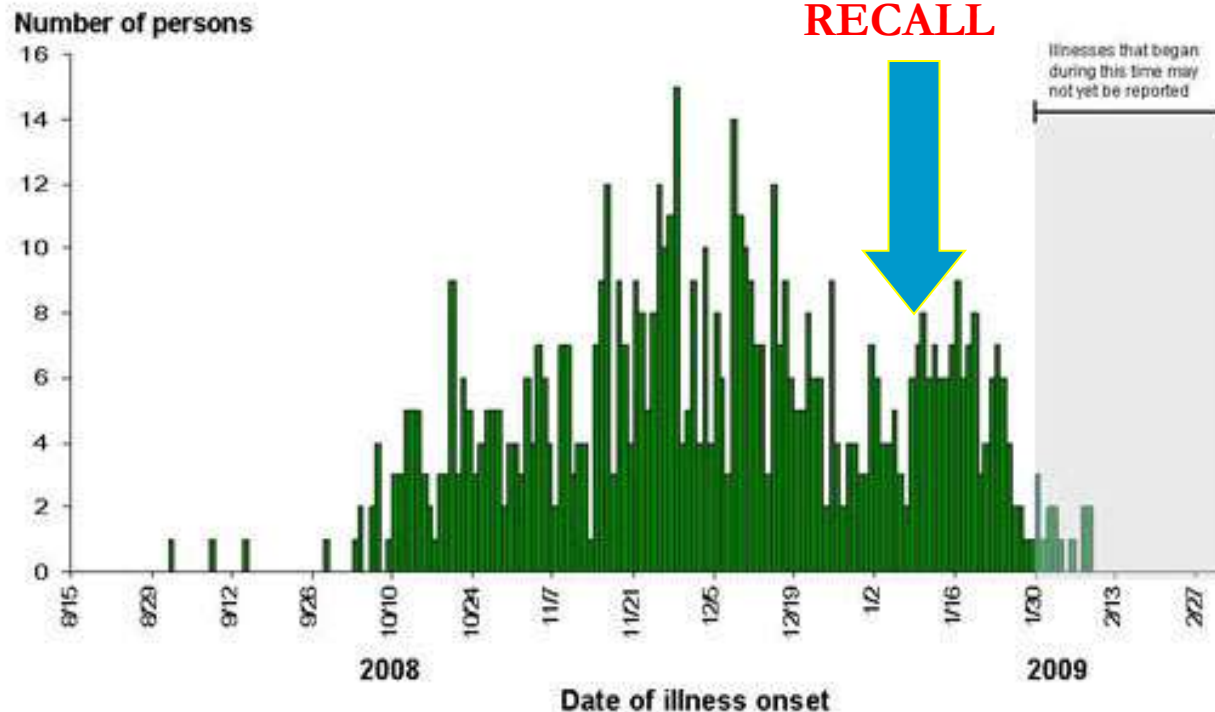
# Peanut Paste 2009

Cases infected with the outbreak strain of *Salmonella* Typhimurium, United States, by state, as of March 1, 2009 at 9pm ET (n=677)



# Peanut Paste 2009

Infections with the outbreak strain of  
*Salmonella* Typhimurium, by date of illness onset\*  
(n=662 for whom information was reported as of March 1, 9pm EDT)



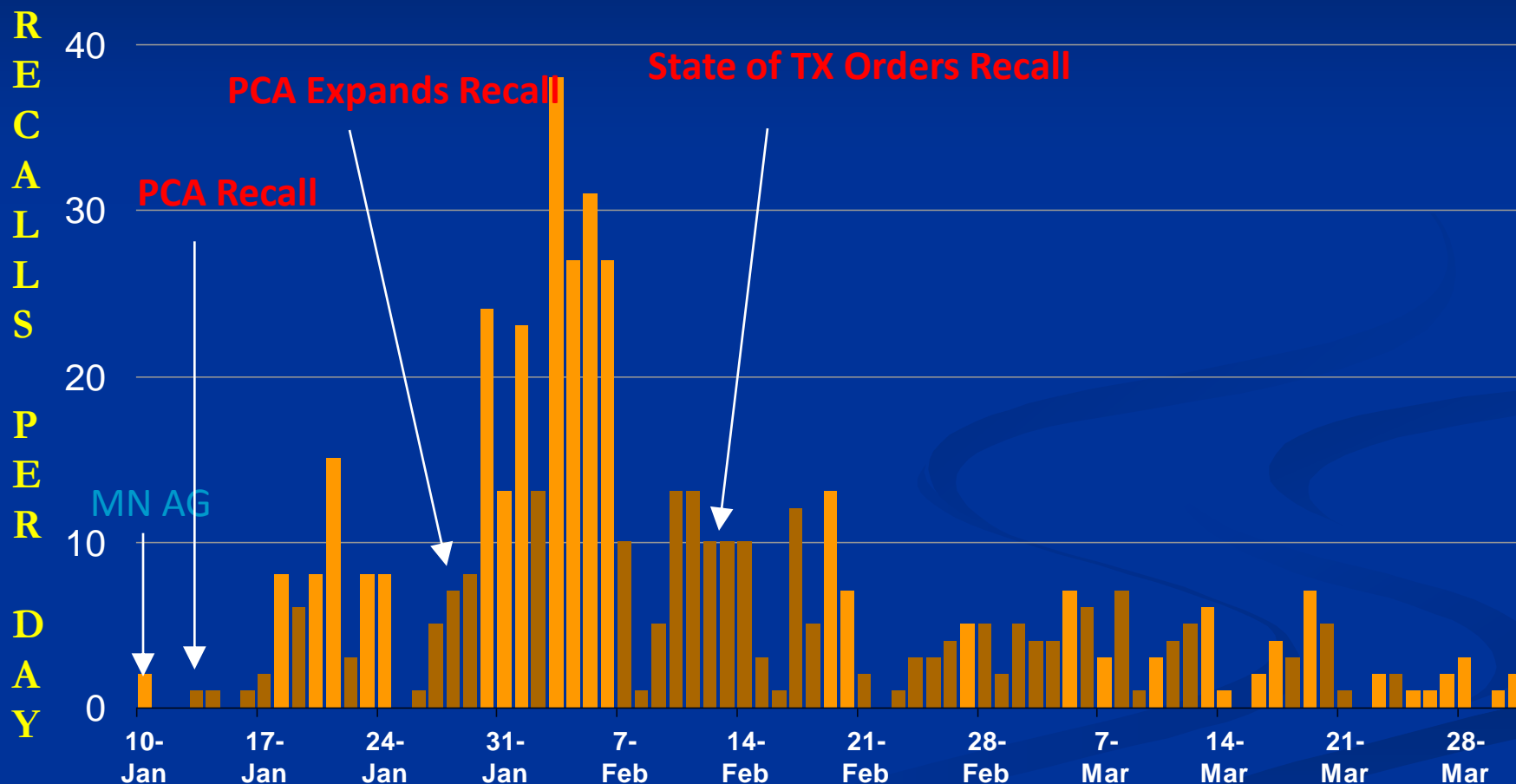
\*Some illness onset dates have been estimated from other reported information

Source: CDC 030609

# PCA Peanut Product Related Recalls Per Day

## Jan 10 – Mar 31, 2009

### PCA and their Customer Companies Recalls



**~ 500 Recalls Involving > 3,900 Products as of 3/31, 9 Deaths**

Source: CDC & FDA & News Releases



# What does this tell us?

- The foodborne disease detectives have become very good!
- The science and electronic capabilities of epidemiology will continue to grow rapidly.
- Electronic communication links all of this together with instant messaging.
- Provides a mechanism to identify a product that is the vehicle for the pathogen.

# What does this tell us?

- Now “**LITTLE PROBLEMS**” in the past can now become Major Events!
- Failures of basic food safety elements can get your brand and/or facility in the spotlight.
- Do not take unusual events lightly!
  - Those little things may be hints of a problem
- **PREVENTION IS THE KEY TO FOOD SAFETY!**

# Consumer Reaction To Food Safety

# Consumer Reaction to Recalls

- Harris Interactive Research-April 2007
  - Following a recall ...
  - 55% would switch brands temporarily
  - 15% said they would never purchase the recalled product
  - 21% avoid purchasing any brand made by the manufacturer of the recalled product

# Changes in Food Purchasing Habits Out of Recall Concerns

- Reported to have stopped purchasing food products following a recall due to food safety:
  - 2005      11%
  - 2006      9%
  - 2007      38%
  - 2008      26%
  - 2009      31%
  - 2010      14%

Source: 2010 U.S. Grocery Supplier



# Changes in Food Purchasing Habits Out of Safety Concerns

## ■ Food Products they **Stopped** Purchasing

	2010	2009	2008	2007
Peanut Products	30%	74%		
Peanut Butter	27%	60%		
Spinach	11%	14%	25%	74%

Spinach recall was in 2006 and Peanut Butter 2007

# Preventing Food Safety Problems

# Things to take away...

Back to the Basics

Compliance with GAPs and GMPs

Knowledge of your products

Knowledge of your process

Knowing your supply chain

Audit your quality control and traceability records

Maintenance of facilities and equipment in a sanitary manner

Planning for food safety starts before you plant

# Preventing Food Safety Problems

Today you have an opportunity...

To enhance your food safety program

To take action to prevent a recall!



# Responsibilities

# Our Responsibilities

- *Moral*

- To do what is right for our customers

- *Legal*

- To meet regulatory requirements

- Both as a Corporation and each of us Personally

# Complacency

# Complacency

- “We have been in business for 67 years and we have never had a problem.”
- “We have always done it like that and it has never been a problem.”
- “The inspector didn’t say anything about that being a problem”

# Complacency

- *Are you taking things for granted?*
- *Are you accepting less than what you should?*

# Food Safety is a Journey Not a Destination!

You must continue to strive for  
improvements each and every day  
in fulfilling consumer expectations.



# Thanks For Your Attention!

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