HOW MANY COOKS IN THE KITCHEN?

AN OVERVIEW OF FOOD SAFETY IN AMERICA TODAY

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Rhode Island Food Safety Task Force 18th Annual Conference

OVERVIEW

- CSPI
  - Food Day is TODAY!
- States Play a Vital Role in Protecting Consumers from Unsafe Food
  - Surveillance Systems
  - The Importance of Reporting
  - Restaurant Inspections
- Does Rhode Island Make the Grade?
- Recommendations
  - New Provisions Under FSMA Governing State Outbreak Investigations and Performance
CSPI AND FOOD DAY

CENTER FOR SCIENCE IN THE PUBLIC INTEREST

- CSPI is a bi-national consumer advocacy organization founded in 1971 by Michael Jacobson, Ph.D.
- Focuses on nutrition, health, and food safety.
- Publishes the award-winning *Nutrition Action Healthletter*.
- Accepts no government or industry funding.
CSPI/SFI and IACFO

- The Center for Science in the Public Interest (CSPI) is a bi-national NGO representing over 850,000 consumers in both the U.S. and Canada.
- Safe Food International (SFI), a CSPI project, partners with consumer organizations in other regions of the world on food safety issues.
- The International Association of Consumer Food Organizations provides representation in Codex for consumer organizations on five continents.

FOOD DAY

Food Day is a nationwide celebration and a movement towards healthy, affordable, and sustainable food

- Promote safer, healthier diets
- Support sustainable and organic farms
- Reduce hunger
- Reform factory farms to protect the environment and animals
- Support fair working conditions for food and farm workers
**WHY DO WE NEED A FOOD DAY?**

- **Huge diet-related health problems:**
  - About two-thirds of American adults and one-third of children are pre-obese or obese.
  - Annual medical costs for diet-related diseases, such as high blood pressure, heart disease, and diabetes, are around $150 billion.
  - Poor diet and lack of physical activity account for about 300,000 deaths per year.
  - Almost half the added sugars we consume come from sugary drinks.
  - High-sodium diets are killing tens of thousands.

**WHY DO WE NEED A FOOD DAY?**

- **Food insecurity:**
  - 50 million Americans are “food insecure,” or near hunger.
  - The average monthly SNAP benefit is just $287 per household, or $4.30 per person each day. That’s barely enough to put decent meals on the table. SNAP and WIC are under constant attack in Washington.
  - About 11% of the poorest Americans without cars live in “food deserts”—beyond walking distance to the nearest grocery store.
Why Do We Need a Food Day?

**Environmental harm:**
- Pesticides harm wildlife and farm workers
- Huge use of energy to produce fertilizer
- On average, it takes about $\frac{1}{3}$ of a pound of fertilizer, 1,900 gallons of water, and 7 pounds of grain to produce 1 pound of grain-fed beef.
- Agriculture is responsible for 70% of all pollution in U.S. rivers and streams.
- Confined animal feeding operations are major causes of air and water pollution, mostly from manure

**Collateral damage:**
- Farm workers are sometimes exposed to chemical pesticides that have been linked to birth defects, Alzheimer’s, diabetes, cancer, and reproductive problems.
- Almost 90% of restaurant workers don’t receive a single paid sick day. They cook, prepare, or serve food while sick.
- Factory farms sometimes raise poultry, pigs, and cattle in inhumane conditions.
FOOD DAY 2011

- 2,300+ registered events in 50 states
- 154 volunteer coordinators and 1,228 event hosts
- 332 TV mentions; 305 articles and op-eds
- Los Angeles County Department of Health and FPC led 60 organizations to organize more than 40 events across the city
- Food Day national marquee event brought 50 food notables for a healthy Eat In, in the middle of Times Square

Food Day 2011:
- 2,300+ events,
- 50 states

Times Square marquee event (right); Savannah Well FED Festival (below)
FOOD DAY 2011

Healthy Kids Georgia - "I Eat Real" campaign

EcoYouth flash mob - Rhode Island

Above: The Largest Community Lunch Ever (300+ participants) - Houston, TX

Left: Food Safety Trivia Wheel - Chicago, IL
FOOD DAY 2012 TODAY!

• 100+ volunteer coordinators around the country
• 30+ city planning meetings
• Events in all 50 states

FOOD DAY IN RHODE ISLAND

- New Urban Farmers 4th Annual Harvest Jubilee
- Governor Declares today Food Day Rhode Island
- Food Recovery Network fights food waste
- SWAGG Snacks Video Challenge
- Soup & Substance: A RI Food Policy Council Lunch Conversation
- RI Kitchen & Bath Cooking Club Launch with Eat Drink RI & Blackbird Farm
- Open House: Integrated Medical Weight Loss
- Food Day Luncheon, Bristol
SURVEILLANCE, REPORTING & OUTBREAK ALERT!

FACES OF FOODBORNE ILLNESS

Kyle Allgood
Spinach (2003-2006)

Lauren Beth Rudolph

Shirley Mae Almer
Peanut Butter (1936-2008)
INFORMATION NEEDS

- What do outbreak investigations give us
- Drilling down into the data
- What states can do

http://wwwn.cdc.gov/foodborneoutbreaks/
OUTBREAK ALERT!

- **Outbreak Alert!** contains over 7,100 outbreaks between 1990-2010.
- Using CDC’s Foodborne Outbreak Online Database (FOOD), CSPI maintains a database of those foodborne illness outbreaks with an identified etiology and food vehicle.
- Outbreaks in the CSPI database are placed within one of thirteen food categories. Each category is then subdivided into food types.

## TOTAL AND “SOLVED” OUTBREAKS: 2001-2010

![Graph showing total and solved outbreaks from 2001 to 2010](image-url)
ONLINE SEARCHABLE DATABASE

http://www.cspinet.org/foodsafety

FOOD CATEGORIES IN OUTBREAK ALERT!

**FDA-Regulated Food**
- Beverages
- Breads & Bakery
- Dairy
- Eggs & Egg Dishes
- Game
- Multi-Ingredient Foods (No-Meat)
- Produce
- Seafood

**USDA-Regulated Food**
- Beef
- Pork
- Poultry
- Luncheon & Other Meats
- Both
FOODS LINKED TO SOLVED OUTBREAKS, 2001-2010

CSPI Outbreak Alert!

PATHOGENS IMPLICATED IN OUTBREAKS, 2001-2010
OUTBREAKS BY LOCATION
2001-2010

- Restaurant, 41.6%
- Private Home, 21.4%
- Catered Event, 5.6%
- Multiple Locations/Unknown, 5.8%
- Other, 3.8%
- Prison/Jail, 1.8%
- Sick/Elderly/Youth Service, 1.7%
- School, 3.6%
- Religious/Social Club, 3.7%
- Workplace, 8.1%
- Camping/Picnic/Farm, 3.0%
- Prision/Jail, 1.8%
- Private Home, 21.4%

FOODBORNE DISEASE SURVEILLANCE & INVESTIGATION IN THE U.S.

- **FoodNet** – Active surveillance for *Campylobacter*, *Cryptosporidium*, *Cyclospora*, *Listeria*, *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC) O157 and non-O157, *Shigella*, *Vibrio*, and *Yersinia* infections diagnosed by laboratory testing of samples from patients.

- **PulseNet** – Detect foodborne disease case clusters by pulsed-field gel electrophoresis (PFGE); facilitate early identification of common source outbreaks; assist epidemiologists in investigating outbreaks; separate outbreak-associated cases from other sporadic cases; assist in rapidly identifying the source of outbreaks; act as a rapid and effective means of communication between public health laboratories.

- **OutbreakNet** – Works with PulseNet to ensure rapid, coordinated detection and response to multistate outbreaks of enteric diseases and promote comprehensive outbreak surveillance. It also seeks to improve the collaboration and partnership among officials in local, state, and federal agencies who work with foodborne and diarrheal disease outbreak surveillance and response.

- **Outbreak Alert!** – Food attribution database at CSPI
GAPS IN THESE DATA SETS

Notably, neither FoodNet nor PulseNet provide systematic analysis of food attribution data.

FOODBORNE DISEASES ACTIVE SURVEILLANCE NETWORK (FOODNET)

- Active, laboratory-based surveillance within 10 well-defined surveillance areas around the United States
- Monitor trends in foodborne diseases
- Conduct case-control studies

Source: http://www.cdc.gov/FoodNet/index.htm
FOODNET (CONT.)

FoodNet Pathogens
- *Campylobacter*
- *Cyclospora*
- *Cryptosporidium*
- *Escherichia coli* O157:H7
- *Listeria monocytogenes*
- *Salmonella*
- *Shigella*
- *Vibrio*
- *Yersinia enterocolitica*

- The core of FoodNet is laboratory-based active surveillance at over 650 clinical laboratories that test stool samples in the ten FoodNet sites.
- Data collected includes patient demographics, co-morbidities, hospital stay details, and laboratory results.

FOODBORNE ILLNESS TRENDS FROM CDC

![Graph](http://www.cdc.gov/foodborneburden/PDFs/FACTSHEET_B_TRENDS.PDF)

http://www.cdc.gov/foodborneburden/PDFs/FACTSHEET_B_TRENDS.PDF
MORE FROM FOODNET...

TABLE 19. Frequency of International Travel, by Pathogen — FoodNet, 2011

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Total cases reported</th>
<th>Total cases with known travel information</th>
<th>Transferred</th>
<th>Did not travel</th>
<th>Unknown if transferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. coli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campylobacter</td>
<td>6,072</td>
<td>6,080</td>
<td>697</td>
<td>17.2</td>
<td>4,082</td>
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<tr>
<td>Listeria</td>
<td>113</td>
<td>112</td>
<td>4</td>
<td>3.6</td>
<td>108</td>
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<tr>
<td>Salmonella</td>
<td>1,978</td>
<td>1,976</td>
<td>672</td>
<td>34.0</td>
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<tr>
<td>Shigella</td>
<td>1,779</td>
<td>1,774</td>
<td>106</td>
<td>5.9</td>
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<tr>
<td>STEC O157</td>
<td>84</td>
<td>84</td>
<td>12</td>
<td>14.3</td>
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<tr>
<td>Other</td>
<td>187</td>
<td>187</td>
<td>5</td>
<td>2.7</td>
<td>182</td>
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<tr>
<td>E. coli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pediococcus</td>
<td>17</td>
<td>17</td>
<td>3</td>
<td>17.6</td>
<td>14</td>
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<tr>
<td>C. perfringens</td>
<td>20</td>
<td>20</td>
<td>7</td>
<td>35.0</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>13,325</td>
<td>13,324</td>
<td>1,123</td>
<td>8.4</td>
<td>12,202</td>
</tr>
</tbody>
</table>


PULSENET USA

- National database of pulsed-field gel electrophoresis (PFGE) patterns
- Enables outbreak cases and concurrent sporadic cases to be distinguished
- Does not include routine PFGE patterns from food and animal sources

Source: http://www.cdc.gov/pulsenet/index.htm
WHAT IS PFGE?

- DNA “fingerprinting”
- A method used to differentiate specific strains of bacteria using DNA migration by size in an agarose gel stimulated by an electrical current
- More sensitive and discriminating than conventional gel electrophoresis because the electrical field used to stimulate DNA migration is pulsed rather than uniform

PULSENET USA (CONT.)

PulseNet Pathogens
- Campylobacter jejuni
- *Escherichia coli* 0157:H7
- *Listeria monocytogenes*
- *Salmonella*
- *Shigella*
- *Vibrio cholerae*
- *Yersinia pestis*

- The PulseNet database includes tens of thousands of PFGE patterns
- Labs at the national, state, and local levels have access to the database
The purpose of CDC OutbreakNet Team is to ensure rapid, coordinated detection and response to multi-state outbreaks of enteric diseases and promote comprehensive outbreak surveillance.

The OutbreakNet Team seeks to improve the collaboration and partnership among officials in local, state, and federal agencies who work with foodborne and diarrheal disease outbreak surveillance and response.

CDC Annual Listing of Foodborne Disease Outbreaks. Outbreak Surveillance Data

EXAMPLES:
OUTBREAKS CAUGHT BY OUTBREAKNET

- Multistate outbreak of *Salmonella* Enteritidis in ground beef:
  - 46 people infected in 9 states from contaminated Cargill beef
  - Atypical strain of *Salmonella* for beef

- Multistate outbreak of Multi-drug resistant *Salmonella* Heidelberg in ground turkey:
  - 136 infections in 34 states due to contaminated turkey burgers

- Multistate outbreak of *E. coli* O157:H7 in bologna:
  - 14 infections in 5 states due to infected Lebanon bologna products

Source: http://www.cdc.gov/outbreaknet/outbreaks.html
HISTORY OF OUTBREAK ALERT!

- CSPI started collecting data on foodborne illness (FBI) outbreaks in 1997 – from outbreaks beginning in 1990 – and organizing it by regulatory agency (USDA and FDA).

- The data was not readily available from CDC; however, with our continued requests, CDC started posting a yearly line listing on the internet.

- In 1999, we published the first line listing of FBI outbreaks organized by food category and by regulatory agency.

UNIQUE DATA

- CSPI database contains over 7,100 outbreaks with known food source and etiology which occurred in the U.S. between 1990-2010.

- Outbreak data was compiled mainly from the CDC, with less than 4% of data from other sources such as direct contact with state and local health departments, and scientific journals.

- Database has been updated and reports are published annually.
DATABASE APPLICATIONS

- Allows for more accurate hazard analysis for HACCP
- Identifies food types most often linked to foodborne illness outbreaks
- Identifies food/pathogen combinations causing outbreaks by state, outbreak location, size, and other parameters

LIMITATIONS OF CSPI’S DATABASE

- Represents a small percentage of actual foodborne illnesses.
- Represents fewer than half of reported foodborne outbreaks, as others include unknown food or pathogen.
- Sporadic cases of foodborne illnesses are omitted and in general *Campylobacter* and *V. vulnificus* are underreported in the data.
FOOD SAFETY AT THE STATE LEVEL

WHAT ROLE DO STATES PLAY?

- States are responsible for:
  1) Monitoring, investigating, and reporting outbreaks;
  2) Food safety oversight of state and local entities for food safety, including:
     - Restaurants
     - Hospitals
     - Schools
     - Nursing homes
     - Prisons
     - And more...
  3) And interfacing with federal government to ensure compliance with federal laws governing food safety.
ANALYZING STATE PERFORMANCE

- In 2011, CSPI looked at the variability in states’ performance on that first responsibility: monitoring, investigating, and reporting foodborne outbreaks.
- Key finding: great variability in outbreak reporting among the states...and even within states from year to year.

MEDIAN REPORTED OUTBREAKS PER MILLION POPULATION (1998-2007)
OUTBREAK REPORTING IN STATES WITH FOODNET SITES

10-YEAR STATE PROFILES

**Louisiana**
- 44 Reported Outbreaks to CDC
- 35 Solved Outbreaks
- 33 Solved Outbreaks Affecting Only LA*
  * Excludes multi-state outbreaks

**Colorado**
- 273 Reported Outbreaks to CDC
- 170 Solved Outbreaks
- 150 Solved Outbreaks Affecting Only CO*
  * Excludes multi-state outbreaks
EACH STATE PROFILE TELLS A STORY...

**Colorado**

[Graph showing outbreak report and solved cases from 1998 to 2007]

**Maryland**

[Graph showing outbreak report and solved cases from 1998 to 2007]

**Texas**

[Graph showing outbreak report and solved cases from 1998 to 2007]

**Tennessee**

[Graph showing outbreak report and solved cases from 1998 to 2007]

RHODE ISLAND’S PERFORMANCE

- Reported 24 outbreaks to CDC
  - 17 of these were ‘solved’ (food and pathogen identified)
    - 6 of these affected only Rhode Island (and not other states)
  - Those 6 outbreaks were caused by (1 each): *Salmonella*, *Norovirus*, *Clostridium*, *Bacillus*, *Ciguatoxin*, and *Scombrotoxin*.

- The size of outbreaks in RI was fairly small – between 2 and 10 people were affected in 67% of the outbreaks. This may indicate the emphasis a state places on investigation (more rapid identification = more containment), or it might indicate a more limited food source.
STATES’ SECOND RESPONSIBILITY: OVERSIGHT OF FOOD FACILITIES

1990 - 2010

Source: Outbreak Alert! 2012

CSPI’S FOCUS ON RESTAURANTS

- CSPI’s 2009 report, Dirty Dining, analyzed inspection data from 20 cities across the country.
- Strong voice for restaurant inspection grading—posting letter grades reflecting the most recent health inspection. This gives consumers information at the moment they select a dining destination.
- CSPI serves on the Executive Board of the Conference for Food Protection, the drafting body of the Food Code.
HOW ARE FOOD FACILITIES REGULATED?

- FDA publishes the Food Code every 4 years as model regulations for local or state governments to adopt.
  - The Food Code is updated every 2 years by a group of industry, government, and consumer experts; thus the newest version should reflect the latest science and thinking in food safety.
  - Rhode Island has adopted the 2005 Food Code.

Centers for Disease Control worries about:
- Holding temperatures
  - Proper cooling
  - Proper hot holding
- Handwashing
- Improper Cooking
- Contaminated Food Contact Surfaces
- Food from Unsafe Sources

Consumers also worry about:
- Employee Cleanliness
- Rodents/Insects
- Unclean Wiping Cloths
- Sick Restaurant Employees
- Bare Hand Contact with Raw Food
MORE ON RESTAURANTS

- We’ve talked about WHY restaurant regulation is so important: because 40% of outbreaks are linked to restaurants...

- And WHERE in the restaurant kitchen we are most concerned about outbreaks originating....

- Now let’s unpack the FOODS and PATHOGENS most likely to affect consumers from a restaurant-related foodborne illness.

Number of Outbreaks per Location by Food Category (1990-2010)

Data source: CSPI Outbreak Alert! Database 2012

- Game
- Beverages
- Dairy
- Luncheon/Other
- Breads
- Pork
- Beef
- Eggs
- Poultry
- Produce
- Multi-Ingredient
- Seafood

Outbreaks: N = 4,383

Private Home  Restaurant

Data source: CSPI Outbreak Alert! Database 2012
RESULTS - FOOD CATEGORIES

The most common food categories of restaurant outbreaks were:
- multi-ingredient foods (non-meat) (25%),
- seafood (23%), and produce (19%).

The most common food categories of private home outbreaks were:
- seafood (27%),
- multi-ingredient food (non-meat) (16%), and
- poultry (11%).

Pork, luncheon/other meats, dairy and game had more reported outbreaks linked to private homes than those linked to restaurants.

Data source: CSPI Outbreak Alert! Database 2012

![Chart: Number of Outbreaks per Pathogen by Location (1990-2010)]
RESULTS-PATHOGENS

The most common pathogens implicated in restaurant outbreaks were:
- Norovirus (28%),
- *Salmonella* (23%), and
- Scombroid toxin (11%).

The most common pathogens implicated in private home outbreaks were
- *Salmonella* (25%),
- Ciguatoxin (14%), and
- Norovirus (8%).

Data source: CSPI Outbreak Alert! Database 2012

RHODE ISLAND RESTAURANT INSPECTIONS

Consumers have some access to inspection data...
- RI Dept of Health database of inspection reports posts reports; consumers can then search by establishment name, address, or zip code. Consumers can register for their favorites and get an update when that establishment is inspected.
- Better than some jurisdictions, where reports may not be available except by FOIA or at the health department itself. BUT ONLINE DATABASES ARE NOT IDEAL FOR CONSUMERS, because:
  - Verbatim reports are technical, jargon-y, and leave consumers to draw their own conclusions;
  - Online databases require consumers to plan their dining destinations in advance;
  - Keeping reports online doesn’t provide public incentive for restaurants to prioritize food safety.
LOOKING AHEAD FOR RHODE ISLAND RESTAURANTS & CONSUMERS

Recommendations:
- Rhode Island should pass the latest version of the FDA Food Code. The upcoming (2013) edition may even contain provision requiring restaurants to keep copies of the inspection report at the front desk, with a sign alerting consumers to their right to see it.
- Rhode Island should consider restaurant grading.
  - Letter grade in the front window gives consumers the key information they need (“How well is this establishment performing on food safety, according to the health department?”) at the moment they make a dining decision.
  - Provides an incentive for restaurants to prioritize food safety to avoid a lower grade. Right now a poor inspection performance (short of closure) is a restaurant’s hidden shame.
  - Proven public health benefits: Los Angeles County documented a 20% decrease in hospitalizations in foodborne illness in 10 years of its letter grading program.

SPOTLIGHT ON SCHOOLS

CSPI’s 2007 Making the Grade report ranked jurisdictions on:
- Overall inspection performance,
- Inspection frequency,
- Types of critical violations,
- Access to inspection results, and
- Which Food Code governed.

Rhode Island received a FAILING grade. However, two important things have improved significantly since that time:
- RI updated to the 2005 Food Code, and
- School inspection results are now available online. (By law, the school should also be posting inspection results in a highly visible location.)

In our next Making the Grade report, RI should fare better!
THE FOOD SAFETY MODERNIZATION ACT (FSMA)

OUTBREAKS & BUDGETS – USDA VS. FDA

Outbreaks Linked to FDA- and USDA-Regulated Food, 1990-2010

- FDA, 66.5%
- USDA, 27.5%
- Both, 6.0%

Food Safety Budget FY2011 ($ Millions)

- USDA, $1,009, 55%
- FDA, $837, 45%

States’ role in federal food safety
FDA FOOD SAFETY MODERNIZATION ACT

- Changes made by FSMA.
  - Facilities register biennially and may be suspended.
  - Facilities have to implement prevention programs.
  - FDA sets performance standards.
  - FDA to issue produce safety standards.
  - FDA charged with improving trace systems.
  - Improvements to State/Federal coordination and surveillance.
  - Importers held accountable for safety of products; and may have to certify high-risk foods meet U.S. safety standards.

Bold Type Indicates Provisions With State Components

COMPARING FDA TO STATE INSPECTIONS

- FDA (2008)
  - 1,850 inspectors
  - 8,200 inspections
    - 8,045 Domestic
    - 152 Foreign
  - 19,000 enforcement actions*
  - 300 recalls
  - 30,600 samples

- States (2008)
  - 3,380 inspectors
  - 4.6 million inspections
    - 9,500 FDA Contract
    - 790 FDA Partnership
  - 170,000 enforcement actions
  - 1,200 recalls
  - 394,000 samples

*Total includes import refusals and investigations for all FDA regulated products
FDA LEVERAGING OF STATE RESOURCES

SCALE OF INSPECTIONS UNDER FSMA

- **FDA**
  - 166,000 domestic facilities holding/manufacturing food, not including farms (2 million) which aren’t inspected.
  - 252,414 foreign facilities in 175 countries.
  - 10 million line items of food entering at border.

- **State Responsibilities**
  - 566,000 food service establishments.
  - 146,000 food and beverage stores.
  - 76,000 nursing and residential care kitchens.
  - 9,000* “Tester” exempt food manufacturing firms.

*2007 Economic Census. (Note: Food manufacturing firms only, number of facilities may be larger.)
IMPROVE SURVEILLANCE BY CDC/STATES

- Coordinate federal, state and local surveillance systems.
- Develop improved epidemiological tools to improve outbreak attribution.
- Engage states to improve foodborne illness outbreak detection and response, and to accelerate investigations.
- Name five State Health Departments as Integrated Food Safety Centers of Excellence.

RECOMMENDATIONS
RECOMMENDATIONS: 1

- Consumers
  - Report suspected foodborne illness to local public health authorities.

- Physicians and Medical Associations
  - Physician organizations should increase training for FBI detection and treatment.
  - When possible, physicians should order appropriate laboratory analyses to confirm FBI, and report results linked to illnesses to the relevant public health authority.

RECOMMENDATIONS: 2

- Local and State Health Departments
  - Use a streamlined and standardized epi protocol.
  - Update epi investigation procedures using documents like CIFOR’s *Guidelines for Foodborne Disease Outbreak Response*.
  - Offer academic-credit internships to public health students to provide more “boots on the ground” aid to epidemiologists.
  - Use up-to-date outbreak detection technology, such as PulseNet, to the greatest extent practicable.
  - Review CSPI State Profile to better understand causes of low reporting.
Centers for Disease Control and Prevention

- Fund state epidemiological training programs to maintain high levels of proficiency among epidemiologists.
- Work with states to develop curriculums for model investigation and epidemiologic practices to streamline the collection of data through local and state health departments.

Congress and the States

- Congress and individual state legislatures must commit financially to improving public health. Local, county and state health departments need adequate support for investigatory and epidemiological staff.
- Federal and state governments should proceed cautiously with proposals to shift additional responsibility for inspecting FDA-regulated facilities from FDA to the states.
States Play a Vital Role in Protecting Consumers from Unsafe Food
  - Surveillance Systems
  - The Importance of Reporting
  - Restaurant Inspections

All Over the Map
A 10-Year Review of State Outbreak Reporting

Dirty Dining
Have Reservations? You Will Now.
http://www.cspinet.org/dirtydining/

Making the Grade
An Analysis of Food Safety in School Cafeterias
THANK YOU!

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