Beyond Attribution: State-by-State Outbreak Reporting

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CSPI: Nearly Four Decades of Consumer Advocacy

- Bi-national consumer advocacy organization founded in 1971 by Michael Jacobson, Ph.D.
  - Focuses on nutrition and health, and food safety
  - Publishes award-winning *Nutrition Action Healthletter*
  - Represents 900,000 subscriber/members in the United States and Canada
Information Needs

• What do outbreak investigations give us

• Drilling down into the data

• Future needs
Unique Data

- CSPI database contains over 6,000 outbreaks, with both known food source and etiology, which occurred in the U.S. between 1990-2007

- Although the outbreak data was originally compiled from several different sources, for the last ten years, 98% has come from CDC.

- The database is updated and reports are published annually.
Online Searchable Database

http://www.cspinet.org/foodsafety
Top Single-Food Vehicles of Outbreaks

Top Five Single-Food Vehicles of Outbreaks, 1990-2001

- Seafood
- Eggs
- Produce
- Beef
- Poultry

Top Five Single-Food Vehicles of Outbreaks, 1990-2003

- Seafood
- Produce
- Poultry
- Beef
- Eggs

Source: Outbreak Alert!
Center for Science in the Public Interest
Outbreaks and Illnesses in Food (1998-2007)

Source: Outbreak Alert! Center for Science in the Public Interest, 2009
Locations of Foodborne Illness Outbreaks (1990-2007)

Outbreak Locations (1990-2007)

- Restaurant/Food Establishment: 41%
- Other: 37%
- Private Home: 22%

Source: Outbreak Alert! Center for Science in the Public Interest, 2009

- **Beef**: 54%
- **Produce**: 19%
- **Multi-ingredient (No-Meat)**: 11%
- **Dairy**: 5%
- **Other**: 11%

*Source: Outbreak Alert! Center for Science in the Public Interest, 2009*
Outbreaks Reported to CDC: Most Have an Unknown Food or Pathogen

Source: The Center for Science in the Public Interest and CDC
Reported Outbreaks per Million Population (2007)
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Population and Geography Are Slight Indicators for Reporting

• Population
  – Largest states (18 to 36 million) ranged from 5 to 1 outbreaks per million
  – Next group (9 to 13 million) ranged from 8 to 1 outbreaks per million
  – States with less than one million ranged from 15 to 1 outbreaks per million

• Geography
  – Very low reporting states (1-3 outbreaks per million) were found in all regions
  – Northern states had better reporting than Southern states
CDC Food-Net States

http://www.cdc.gov/FoodNet/large_map.htm
Reported Outbreaks per Million Population in CDC Food-Net States (2007)
Food Net

• Participation in Food Net not a good indicator of outbreak reporting
  – Food Net states ranged from 10 to 1 outbreaks per million

TAKE HOME MESSAGE

There is lots of room for improvement!
Reported Outbreaks per Million Population (2007)
Improving Surveillance

Reform legislation requires FDA to:

• Coordinate federal, state and local surveillance systems

• Develop improved epidemiological tools to improve outbreak attribution

• Engage states to improve foodborne illness outbreak and response, and to accelerate investigations
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