CIFOR
Council to Improve Foodborne Outbreak Response

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AFDO Foodborne Outbreak Emergency Response Committee
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CIFOR Member Organizations and Agencies
About CIFOR

- **Vision**: Local, state, and federal partners collaborating effectively to reduce the burden of foodborne illness in the U.S.

- **Mission**: To improve methods at the local, state, and federal levels to detect, investigate, control, and prevent foodborne disease outbreaks

- **Products**: identify barriers/gaps, develop projects and workgroups to address the barriers/gaps
CIFOR Development Teams

- **Identify** what is being done in the area of outbreak response and what needs to be improved
- **Lead** the development of new CIFOR products to address remaining gaps and barriers and align activities across partner organizations and program
- **Promote** model practices and other tools to support improvement
- **Evaluate** the overall effectiveness of outbreak response
CIFOR Guidelines for Foodborne Disease Outbreak Response, 2nd Edition

- Developed by a workgroup with representatives from state, local, and federal levels and all disciplines
- Recommendations are based on existing guidelines and practices
- Incorporated input from external reviewers and public review
- 1st edition in 2009: 198 pages
- 2nd edition in 2014: 255 pages
- 3rd edition being started
### 2.4. Etiologic Agents Associated with Foodborne Diseases

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COMMONLY ASSOCIATED MICROORGANISM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw seafood</td>
<td><em>Vibrio</em> spp., hepatitis A virus, noroviruses</td>
</tr>
<tr>
<td>Raw eggs</td>
<td><em>Salmonella</em> (particularly serotype Enteritidis)</td>
</tr>
<tr>
<td>Undercooked meat or poultry</td>
<td><em>Salmonella</em> and <em>Campylobacter</em> spp., Shiga toxin-producing <em>Escherichia coli</em> (STEC), <em>Clostridium perfringens</em></td>
</tr>
<tr>
<td>Unpasteurized milk or juice</td>
<td><em>Salmonella</em>, <em>Campylobacter</em>, and <em>Yersinia</em> spp., STEC</td>
</tr>
<tr>
<td>Unpasteurized soft cheeses</td>
<td><em>Salmonella</em>, <em>Campylobacter</em>, <em>Yersinia Listeria monocytogenes</em>, STEC</td>
</tr>
<tr>
<td>Home-made canned goods</td>
<td><em>Clostridium botulinum</em></td>
</tr>
<tr>
<td>Raw hot dogs, deli meat</td>
<td><em>Listeria monocytogenes.</em></td>
</tr>
</tbody>
</table>
Investigation of Clusters and Outbreaks

- 5.1. Characteristics of Outbreak Investigations
  - Speed and accuracy are the two key qualities of all outbreak investigations.
    - “Removing the pump handle.”
    - Preventing future outbreaks by identifying the circumstances that led to contamination.
    - Identifying new hazards.
A process and supporting materials to help agencies and jurisdictions:

- Become more familiar with the Guidelines
- Systematically evaluate current foodborne disease detection and outbreak response activities
- Identify appropriate Guidelines recommendations to improve performance
- Make plans to implement those recommendations
Planning and Preparation
- Relationships
- Necessary resources
- Communication

Surveillance and Outbreak Detection
- Complaint systems
- Pathogen-specific surveillance

Investigation of Outbreaks and Clusters
- Initial steps
- Epidemiology investigation
- Environmental health investigation
- Laboratory investigation

Control Measures
- Control of source and secondary spread
- Food recall

CIFOR Council to improve foodborne outbreak response
Detect • Investigate • Control • Prevent
Development of Target Ranges For Selected Performance Measures in CIFOR Guidelines

- Target ranges were developed for 16 performance indicators in the CIFOR Guidelines
- Measures cover key areas at state and local levels
- Include Epi, Lab, and EH functions
- Abridged and full versions available at www.cifor.us
- Released in 2014
C-MET: CIFOR Metrics Entry Tool

- Enables officials (you!) from states and large cities/counties to anonymously enter metrics data
- Performed annually to measure progress over time
- Compare your data with aggregated data
- Public will have access to aggregated data only
- Database administrators (i.e. Craig Hedberg)
  - Population, region, food safety programs
  - Type of jurisdiction (e.g. local or state).
- Identify nationwide gaps > training, resources and tool
CIFOR Outbreaks of Undetermined Etiology (OUE) Guidelines

• Suggest optimal, universal specimens for all outbreaks
• Provide adequate specimens for second-tier testing and pathogen discovery
• Use CIFOR-developed recommendations on shipment, rule-out testing, and long-term storage of outbreak specimens
OUE Guidelines

• Modeled on Minnesota and Wisconsin documents
• Uses specific outbreak profiles
• Categorized by key symptomology:
  ✓ Diarrhea, vomiting, cramping, HUS, paresthesias, respiratory depression, hepatic symptoms, systemic illnesses, other
• Infectious and non-infectious agents
• Includes OUE Agent List
  ✓ Incubation period
  ✓ Primary signs and symptoms
  ✓ Primary specimen(s)
  ✓ Key epidemiological information
52% of *known* sources of foodborne illness occur in retail setting.
“An Economic Evaluation of PulseNet, A Network for Foodborne Disease Surveillance”

• Authors: Scharff, Besser, Sharp, Jones, Gerner-Smidt, Hedberg
• American Journal Of Preventive Medicine, 2016
• Began as a basic CIFOR report to APHL
• Key findings:
  – Prevents over 250,000 Salmonella, 9000 E. coli and 56 Listeria cases annually
For More Information About CIFOR:

- Visit the CIFOR website: www.cifor.us

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