

# CIFOR

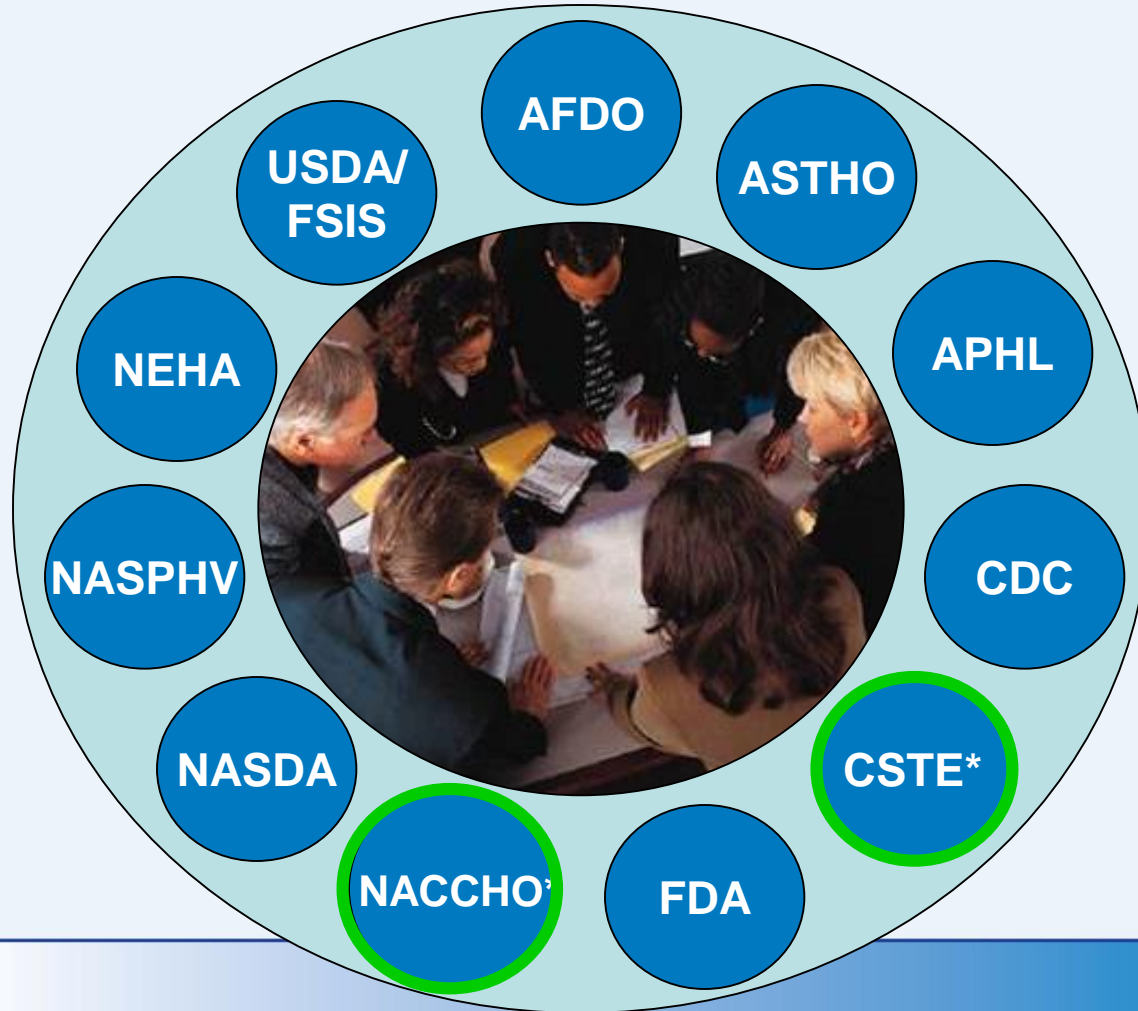
## Council to Improve Foodborne Outbreak Response

**Ernest Julian, Ph.D.**

**With slides from: Donald J. Sharp, MD, DTM&H  
Food Safety Office, DFWED/NCEZID/CDC**

**AFDO Foodborne Outbreak Emergency Response Committee  
June 2017**

# 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



# Fundamental Concepts of Public Health Surveillance and Foodborne Disease

## ❑ 2.4. Etiologic Agents Associated with Foodborne Diseases

**Table 2.2.** Examples of food items and commonly associated microorganisms  
(based on Chamberlain 2008)<sup>116</sup>

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

# Investigation of Clusters and Outbreaks

## □ 5.1. Characteristics of Outbreak Investigations

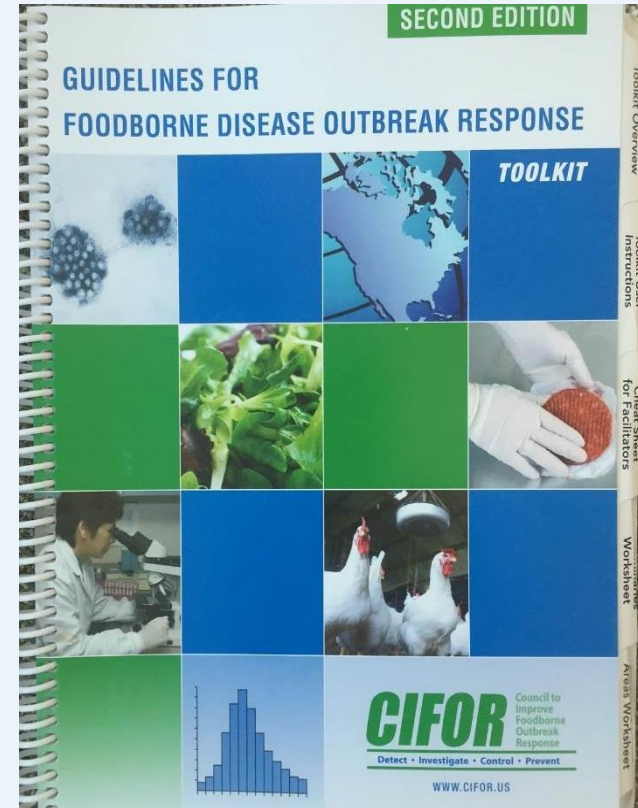
- Speed and accuracy are the two key qualities of all outbreak investigations.
  - “Removing the pump handle.”
  - Preventing future outbreaks by identifying the circumstances that led to contamination.
  - Identifying new hazards.



# CIFOR *Guidelines Toolkit, 2<sup>nd</sup> Edition*

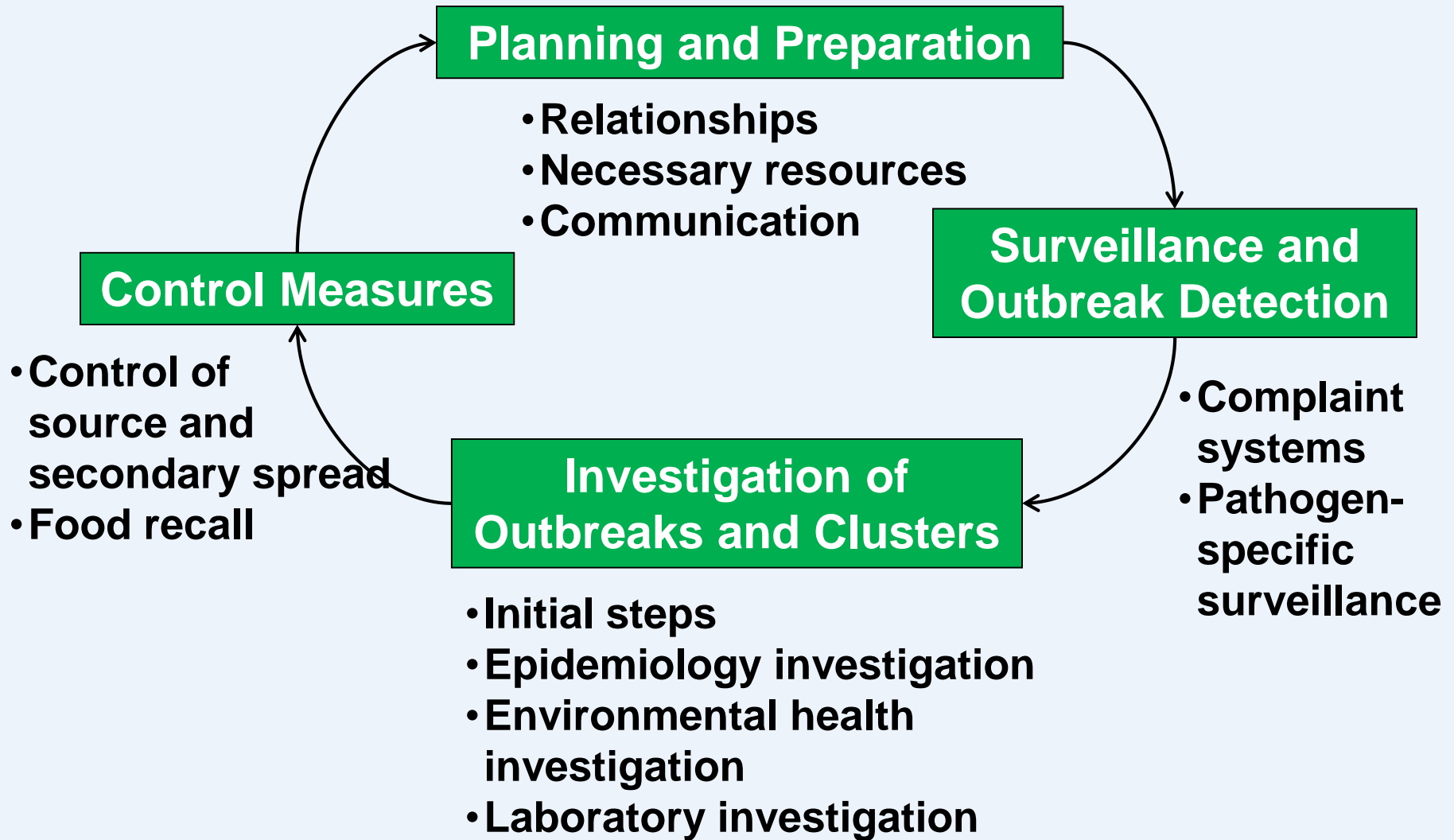
A process and supporting materials to help agencies and jurisdictions:

- 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



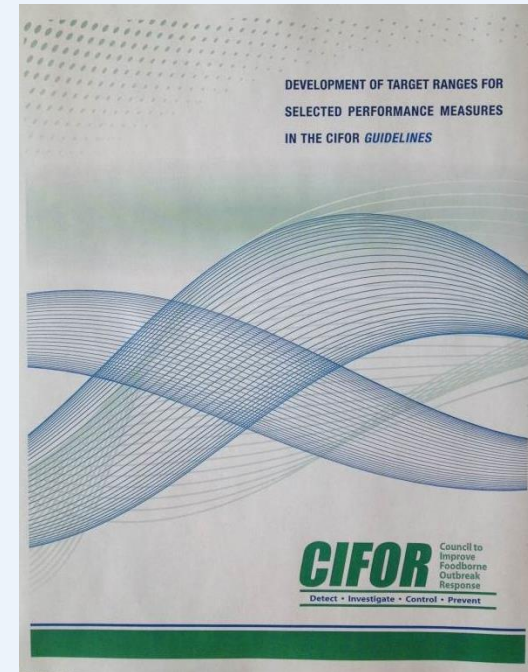


# Toolkit Focus Areas



# 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](http://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

# CIFOR INDUSTRY GUIDELINES

## FOODBORNE ILLNESS RESPONSE GUIDELINES

For Owners, Operators and Managers of Food Establishments



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](http://www.cifor.us)
- Contact the CSTE National Office:  
Dhara Shah, MPH  
Senior Research Analyst  
[dshah@cste.org](mailto:dshah@cste.org)