

Synopsis of Draft CIFOR Guidelines

This document describes at a high level key elements of the draft *CIFOR Guidelines for Foodborne Disease Outbreak Response*. If you would like to review and comment on the complete draft Guidelines, please go to www.cste.org/cifor/guidelines.asp.

Chapter 1. Practical Guide to Foodborne Disease Outbreak Response (Page 3)

To be done -- Brief outline and graphical overview of the steps in a foodborne disease outbreak investigation, with page numbers that link to sections in the Guidelines.

Chapter 2. Fundamental Concepts of Foodborne Disease (Page 4)

Trends in Diet and the Food Industry (Page 4)

Review of changes in the American diet, the food supply and in the food industry over the last several decades, and a discussion of how these changes have affected the occurrence of foodborne disease outbreaks.

Surveillance of Foodborne Disease (Page 6)

Brief overview of trends in foodborne disease surveillance and results of national disease surveillance programs.

Etiologic Agents Associated with Foodborne Diseases (Page 9)

Survey of pathogens and toxins causing foodborne disease, broken out by etiology. The section covers pre-formed bacterial and non-bacterial toxins, bacterial toxins formed in vivo, bacterial tissue invasion, viruses, parasites, and prions. Each organism or agent is briefly described and extensive references are provided.

Chapter 3. Planning and Preparation (Page 25)

Agency Roles (Page 25)

Overview of the roles and responsibilities of local and state public health agencies, state agriculture agencies, and key federal agencies including the Centers for Disease Control and Prevention, the Food and Drug Administration, and the U.S. Department of Agriculture Food Safety Inspection Service. The description for each agency also includes a brief listing of typical available resources and the kinds of contributions that the agency generally makes to outbreak investigation and response. The section also discusses other types of agencies that may be involved in foodborne disease outbreaks including tribes, the military, and the National Park Service.

Outbreak Investigation and Control Team (Page 31)

Description of the roles, responsibilities and desirable skills of individual members of the team charged with outbreak investigation and control. The section also covers model practices for outbreak control teams including forming an emergency response unit, identifying additional support for large-scale outbreaks, establishing agency-specific response protocols and training the team.

Necessary Resources (Page 35)

Review of resources that should be available to the individuals, teams and organizations responding to foodborne disease outbreaks, including administrative staff support, equipment, supplies, documents, and reference materials.

Records Management (Page 37)

Recommended practices for collecting and managing information related to an outbreak, including use of standard forms and processes, databases and data analysis tools.

Communication (Page 38)

Model communication practices including the development and maintenance of complete contact lists, and establishing processes and tools for communication within the Outbreak Investigation and Control Team; between local, state and federal agencies; with the food industry and health professionals; and with the media and the public.

Planning for Recovery and Follow-Up, Escalation (Page 41)

Recommendations for actions to take prior to the occurrence of an outbreak to facilitate recovery and follow-up after the outbreak is over, and a discussion of when agencies that are responding to outbreaks should ask for help, as well as how to obtain that help.

Incident Command System (Page 42)

Brief review of the Incident Command System approach to emergency management and how such systems can be applied to foodborne disease outbreaks.

Chapter 4. Foodborne Disease Surveillance and Outbreak Detection (Page 45)

Overview (Page 45)

High level overview of the three major categories of disease surveillance methodology – pathogen-specific surveillance, notification/complaint systems, and syndromic surveillance – and a comparison of their major characteristics.

Definitions (Page 47)

Definitions of key terms used in association with surveillance and investigation of foodborne disease outbreaks.

Pathogen-Specific Surveillance (Page 49)

Detailed guidance on processes and techniques for pathogen-specific surveillance, described from a public health laboratory, an epidemiology and an environmental health perspective. Section includes strengths, limitations, and key determinants of success for pathogen-specific surveillance systems. Model practices for routine surveillance are provided and cover reporting and isolate submission, isolate characterization, case interviews, data analysis, and communication. Model practices are also provided for cluster follow-up and cover dynamic cluster investigation processes, case-to-case comparison studies, using the FoodNet exposure atlas, performing additional sub-typing, and increasing surveillance.

Notification/Complaint Systems (Page 62)

Detailed guidance on processes and techniques for notification/complaint surveillance systems, from a public health laboratory, epidemiology and environmental health perspective. Section includes strengths, limitations, and key determinants of success for notification/complaint surveillance systems. Model practices for notification/complaint systems are provided and cover interviews related to independent complaints and to illnesses reported in groups, obtaining clinical specimens and food samples, establishing etiology through laboratory testing, improving reporting, and improving communication.

Syndromic Surveillance (Page 69)

Overview of syndromic surveillance systems, with strengths, limitations and key determinants of success.

Chapter 5. Investigation of Outbreaks (Page 74)

Characteristics of Outbreak Investigations (Page 74)

Review of key elements that make outbreak investigations successful and principles of investigation, including initiation of investigations and investigation leadership and processes.

Outbreak Investigation Procedures (Page 77)

Detailed guidance on outbreak investigation procedures, starting with prioritizing the investigation, assembling the team and establishing the goals for the investigation, and selecting the investigation methods. Key investigation steps are described for epidemiology, environmental health and public health laboratory staff. The investigation methods for outbreaks associated with events or establishments are listed separately from the methods for outbreaks identified by pathogen-specific surveillance.

Chapter 6. Control Measures (Page 92)

Information-Based Decision-Making (Page 93)

Discussion of the importance of information-based decision-making, how much information is needed before making decisions, and issues to consider prior to implementing control measures.

Control of Source (Page 94)

Review of non-specific control measures which can be used when a specific source of an outbreak has not yet been identified, as well as specific control measures for use when specific food has been implicated. Model practices are described in detail and provided both for foods associated with single facilities and foods associated with multiple facilities or distributed product. For single facilities the model practices include removing food from consumption, cleaning and sanitation, training, modifying food preparation processes, modifying the menu, removing infected workers, closing the facility, and communicating with the public. For foods associated with multiple facilities or

distributed product, the model practices include removing food from the market, communicating with the public, and post-recall reporting by businesses.

Control of Secondary Transmission (Page 101)

Review of practices for health care providers, members of the public, and employers including food preparation facilities, daycares and health care facilities to limit secondary transmission of enteric illnesses.

Communication (Page 103)

Review of recommended practices for communicating about outbreak response within the team investigating and controlling the outbreak, with other agencies, with the public and with the food industry.

End of Outbreak, Debriefing, Outbreak Report, and Future Studies and Research (Pages 105-107)

Discussion of key activities following an outbreak, including determining when to remove restrictions following an outbreak, post-outbreak monitoring, conducting a debriefing with the Outbreak Control Team, preparing reports for use by the lead agency and to help other agencies learn from the outbreak, and identifying opportunities for research and policy action based on the outbreak results.

Chapter 7. Special Considerations for Multi-Jurisdictional Outbreaks (Page 110)

Background (Page 111)

Discussion of the rationale for multi-jurisdictional outbreak response guidelines and identification of the categories of multi-jurisdictional investigations.

Key Indicators and Notification Steps (Page 113)

Specific guidance on indicators of multi-jurisdictional outbreaks at the local, state and federal level and recommended notification steps for each indicator.

Coordination of Multi-Jurisdictional Investigations (Page 116)

Review of principles for coordination of multi-jurisdictional investigations, with discussions of where to locate the coordinating office, how outbreak investigation leadership can change over the course of the investigation, and the importance of sharing information and coordinating information releases to the public.

Outbreak Detection and Investigation by Level (Page 118)

Listing of specific steps for notification and coordination of outbreaks at the local, state and federal level, and how investigations transition from one jurisdictional level to the next.

Chapter 8. Performance Indicators for Foodborne Disease Programs (Page 125)

Purpose and Intended Use (Page 125)

Discussion of why the performance indicators have been developed and how CIFOR recommends that they be used.

Performance Indicators (Page 126)

Detailed listing of specific performance indicators, sub-indicators and metrics for overall foodborne disease surveillance and control programs and for communicable disease, environmental health and public health laboratory programs at the local and state level.

Chapter 9. Legal Considerations for the Surveillance and Control of Foodborne Disease Outbreaks (Page 153)

Legal Framework for Mandatory Disease Reporting (Page 153)

Review of legislative authority and regulatory processes for maintaining and updating lists of reportable diseases, for establishing and enforcing reporting requirements, and for protecting confidentiality.

Legal Framework for Surveillance and Investigation of Foodborne and Enteric Diseases (Page 156)

Review of legislative authority and regulatory processes for establishing and maintaining surveillance systems and for supporting investigations of foodborne disease outbreaks.

Legal Framework for Measures and Methods to Prevent or Mitigate Foodborne Disease Outbreaks (Page 157)

Review of the legislative and regulatory authority of federal, state and local agencies to implement control measures following the identification of a foodborne disease outbreak.

Public Health Investigations as the Basis for Regulatory Actions or Criminal Prosecution (Page 159)

Review of practices that can be beneficial when outbreak investigations become the basis for regulatory actions or criminal prosecution, including chain of custody, collection of evidence and data collection and analysis.

Appendices (Page 162)

To Be Done

- Appendix 1 Glossary
- Appendix 2 Questionnaire design and administration
- Appendix 3 Index of forms and materials available in CIFOR Clearinghouse
- Appendix 4 Statistics references
- Appendix 5 Procedures and equipment for specimen collection and transport
- Appendix 6 Links to foodborne disease outbreak resources and training programs

For more information, please contact jlemmings@cste.org or visit www.cste.org/cifor/guidelines.asp.