

FoodCORE:

Improving Foodborne Disease Outbreak Response Capacity in State and Local Health Departments

**Outbreak Response and Prevention Branch
Division of Foodborne, Waterborne and Environmental Diseases
Centers for Disease Control and Prevention**

Filling a Gap in Foodborne Disease Outbreak Response Capacity

- Decreases in food safety resources have reduced capacity to identify, respond to, and control outbreaks
- Capacity needs to be enhanced in three core areas
 - Laboratory
 - Epidemiology
 - Environmental health

FoodCORE:

Foodborne Diseases

Centers for

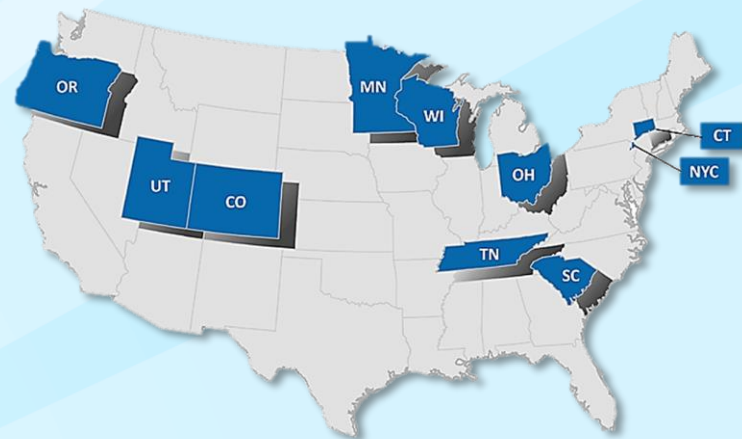
Outbreak

Response

Enhancement

Collaborating to Turn Innovation into Action

- Collaborate among centers and across disciplines
- Share ideas and resources
- Test innovative methods
- Identify and evaluate model practices to improve:
 - Detection
 - Response
 - Investigation
 - Control



10 FoodCORE Centers
Covers ~ 18% of U.S. (58 million people)

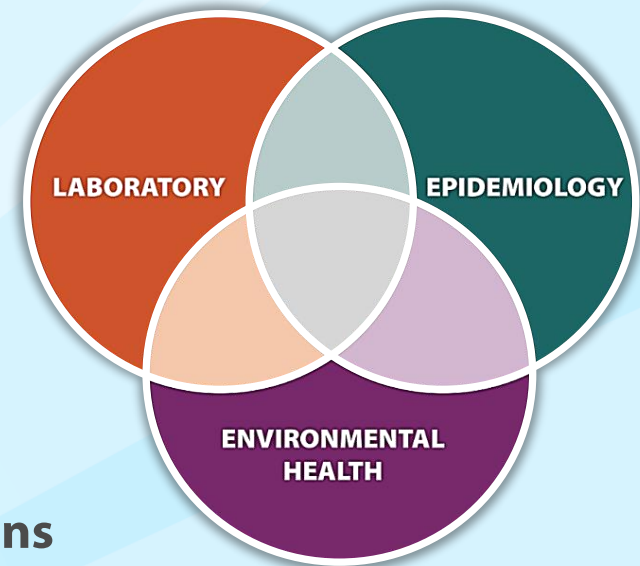
Building Capacity to Improve Surveillance, Investigation, and Response

- Internal Capacity for

- Laboratory
- Epidemiology
- Environmental Health

to

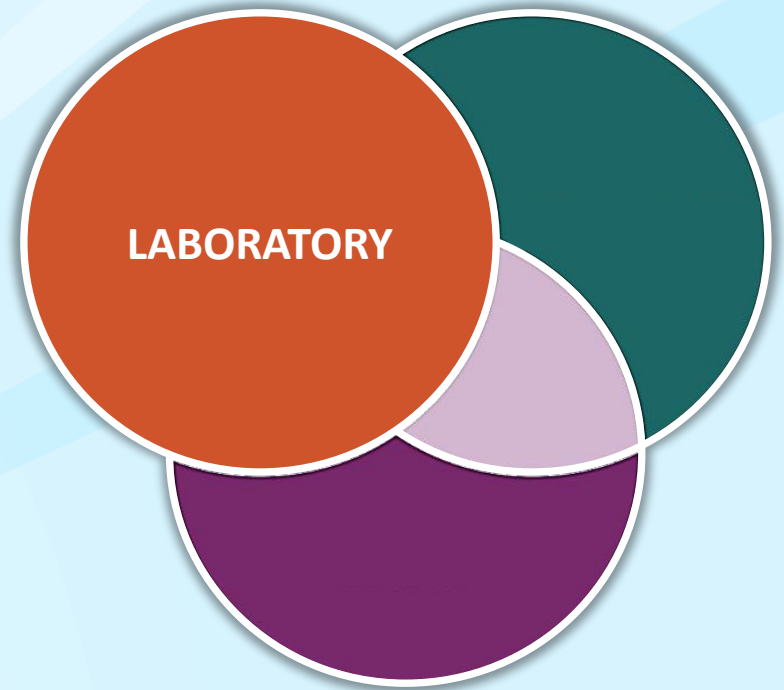
- Detect more outbreaks
- Conduct more thorough investigations
- Control outbreaks faster
- Prevent more people from getting sick



Results in better, faster, and more complete foodborne outbreak investigations and response activities

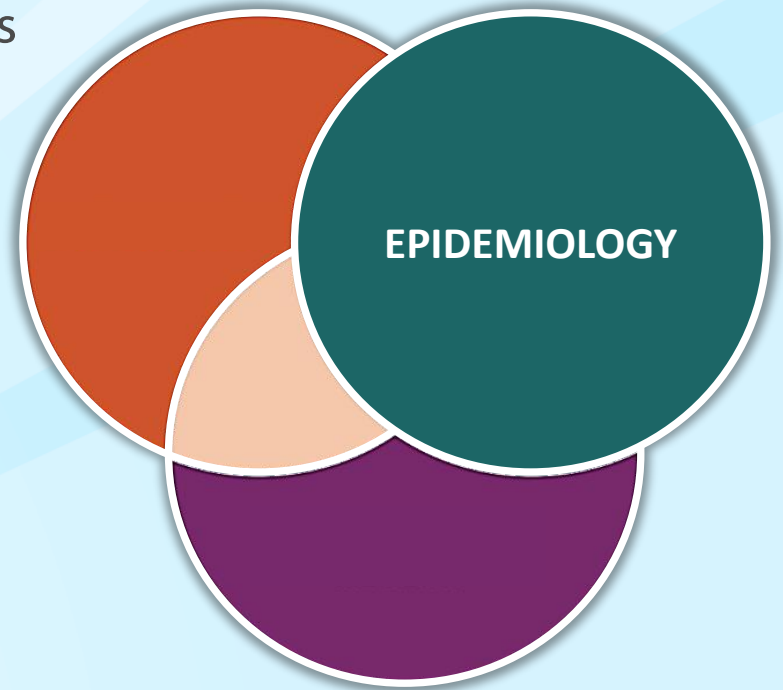
Building Laboratory Capacity

- **Laboratory Surveillance**
 - Isolate/specimen submission
 - Complete and timely subtyping
 - Serotyping, PFGE, etc.
 - Communication of lab findings



Building Epidemiology Capacity

- **Epidemiology**
 - Cluster detection and data review
 - Centralized, rapid case interviews
 - Data collection and analysis to identify vehicles



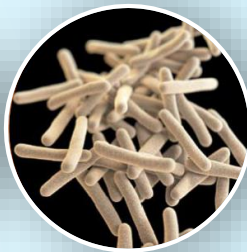
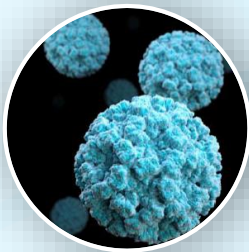
Building Environmental Health Capacity

- **Environmental Health**
 - Environmental health assessment completion
 - Data collection and traceback investigations
 - Training for local environmental health specialists



Measuring Performance to Demonstrate Impact and Share Successes

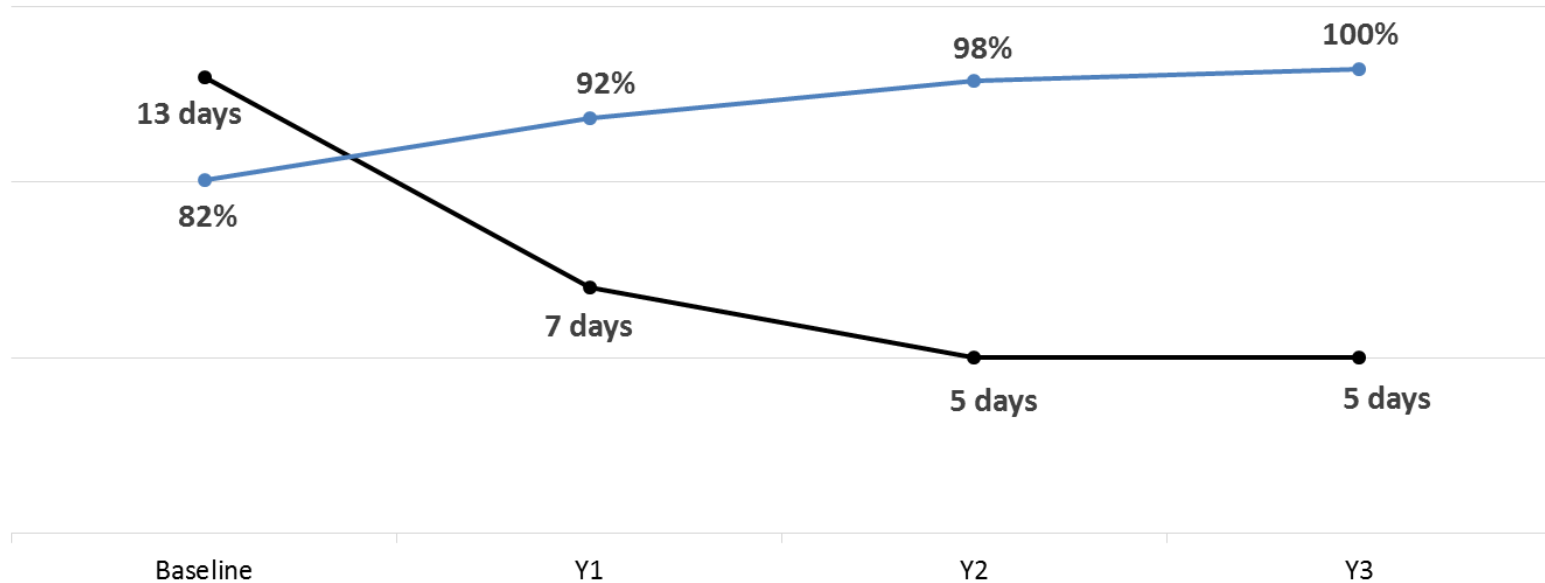
- **Centers use metrics to:**
 - Document successes and identify gaps
 - Set and meet goals
- **CDC uses metrics to:**
 - Evaluate FoodCORE implementation
 - Advocate for additional support
- **Complete list of metrics with Intent & Rationale documents are online at: <http://www.cdc.gov/foodcore/metrics.html>**



Demonstrating Impact: Improved Surveillance

Salmonella PFGE subtyping is faster and more complete

The **Average Proportion** of isolates with PFGE increased while the **Average Time** to complete PFGE reduced



Cumulative metrics data for each year are available on the FoodCORE website

Documenting Practices and Lessons Learned

- Centers determine what works best
- Share lessons learned
 - Among Centers
 - With others at conferences, on webinars, etc.
- Successful strategies documented as FoodCORE Model Practices
 - Consensus and collation among Centers
- Access Model Practices online at:
<http://www.cdc.gov/foodcore/resources.html>

**FoodCORE Model Practice:
Laboratory Timeliness and Completeness**



Introduction:
Laboratory activities are a critical component of enteric disease surveillance and cluster and outbreak detection. Identification of the etiologic agent causing illness requires testing of specimens at local hospitals, clinics, and private laboratories. Laboratory-based surveillance identifies confirmed cases of enteric disease infection and can help guide pathogen-specific response activities. Further characterization of pathogens (e.g. subtype, virulence determinants, antimicrobial susceptibility, etc.) at Public Health Laboratories (PHL) enhances the ability to identify patterns and trends, including clusters of disease that may represent unrecognized outbreaks. Additionally, PHLs also provide primary diagnostic functions in event-associated outbreaks of undetermined etiology.

The FoodCORE Model Practice: Laboratory Timeliness and Completeness describes the successful laboratory practices utilized by PHLs in the FoodCORE centers for improving and maintaining the timeliness and completeness of isolate or specimen submissions to the PHL, the subtyping of enteric pathogens, and the communication of laboratory results and cluster detection reports. The activities described would be applicable for various pathogens but are focused on those that are likely transmitted via food. A checklist is provided which may be used to determine if current PHL practices align with the FoodCORE model practices.

Appendices:
[Appendix A](#), Checklist for FoodCORE Laboratory Practices

Aligning with other initiatives:
The laboratory model practice document is not intended to replace guidance about laboratory test protocols or participation in reporting to surveillance systems such as the [Laboratory-based Enteric Disease Surveillance \(LEDS\) system](#), the [Nationally Notifiable Disease Surveillance System \(NNDDSS\)](#), [PulseNet](#), and [CatchNet](#). These FoodCORE laboratory model practices may be used to enhance future guidance documents and protocol development.

National Center for Emerging and Zoonotic Infectious Diseases
Division of Foodborne, Waterborne, and Environmental Diseases



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Model Practice on Laboratory
Timeliness and Completeness

FoodCORE Resources

■ FoodCORE Website

- Program details
- Information on each of the centers
- <http://www.cdc.gov/foodcore/index.html>

■ Metrics

- Available at <http://www.cdc.gov/foodcore/metrics.html>

■ Success Stories and Highlights

- Available at <http://www.cdc.gov/foodcore/successes.html>

■ Model Practices

- Available at: <http://www.cdc.gov/foodcore/resources.html>



FoodCORE Acknowledgments

FoodCORE Centers

- Colorado
- Connecticut
- New York City
- Minnesota
- Ohio
- Oregon
- South Carolina
- Tennessee
- Utah
- Wisconsin

Partners

- CoEs
- APHL
- CaliciNet
- EHS-Net
- ELC
- FDA-RRT
- FoodNet
- NoroSTAT
- PulseNet
- USDA-FSIS