

FERN : **Surveillance for Foodborne Pathogens**

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Food Emergency Response Network (FERN)

U.S. Dept of Agriculture
Food Safety and
Inspection Service

U.S. Dept of Health & Human Services
Food & Drug Administration

FERN Mission

- Mission - Integrate the nation's food-testing laboratories for the detection and identification of threat agents in food at the local, state, and federal levels.
- Comprehensive effort
 - +chemical
 - +biological
 - +radiological

FERN Objectives

- *Prevention* – federal/state surveillance sampling programs
- *Preparedness* – strengthening lab capabilities/capacities
- *Response* – surge capacity
- *Recovery* – provide assurance to consumer

FERN Deliverables

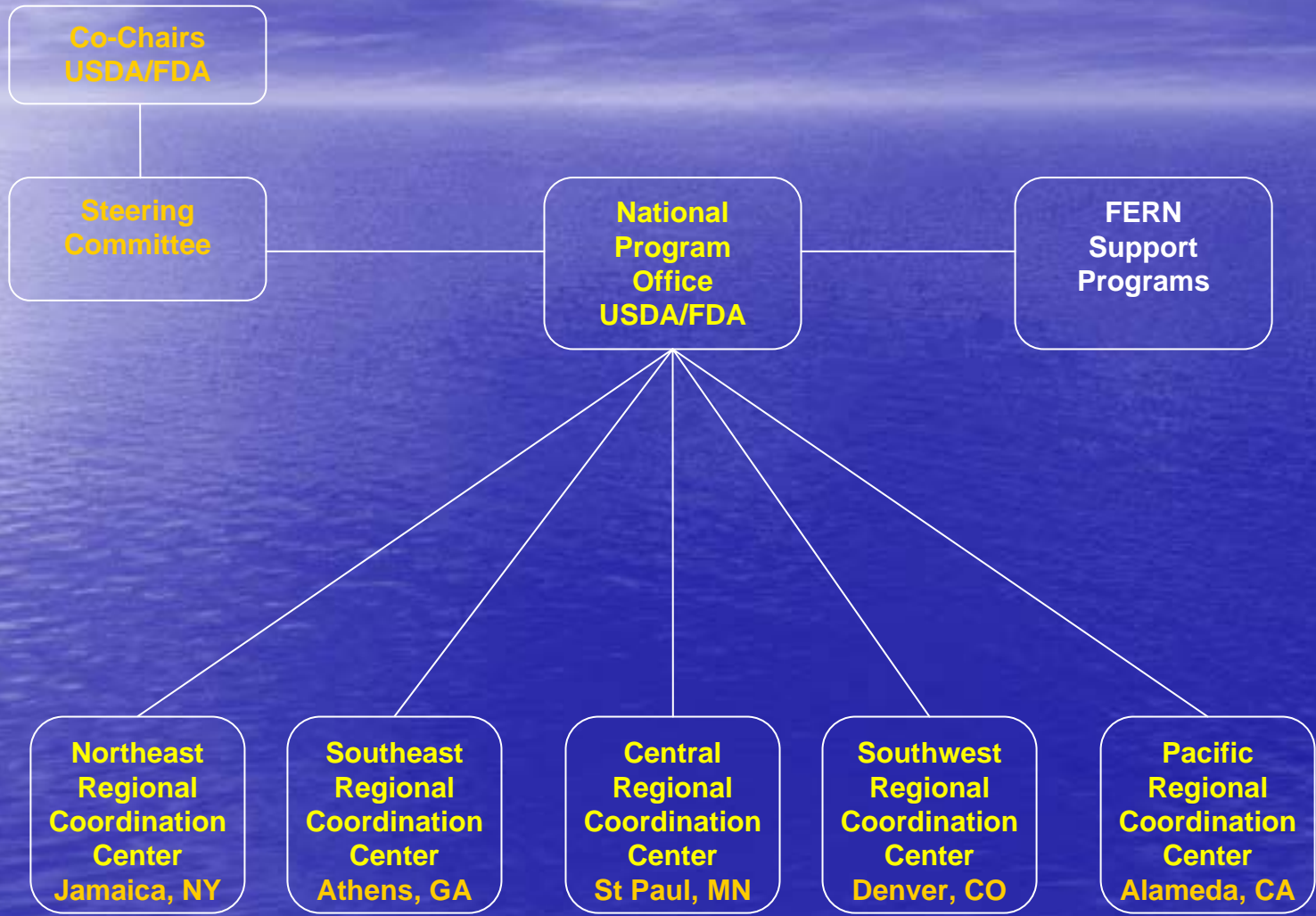
- Proven capacity and capability
- Ability to rapidly respond to an incident
- Significant surge capacity
- Timely recovery from event
- Restore public confidence in food

FERN Deliverables

- Rapid response
- Surveillance testing (HSPD-9)
- Demonstrated competency
- Geographically distributed capability
- Communication/coordination

Response to Events

- Goal: 100,000 bio samples/month
50,000 chemical/rad samples/month
- anthrax event is benchmark
- Current capability varies with agent
- Very limited for some agents
- Delayed response/recovery times for some agents



FERN Members

- 134 Laboratories representing 50 States and Puerto Rico have satisfactorily completed FERN Laboratory Qualification Checklists.

27 Federal (HHS-FDA, [USDA-FSIS, APHIS, AMS],
DOE, DHS, CBP, DOD)

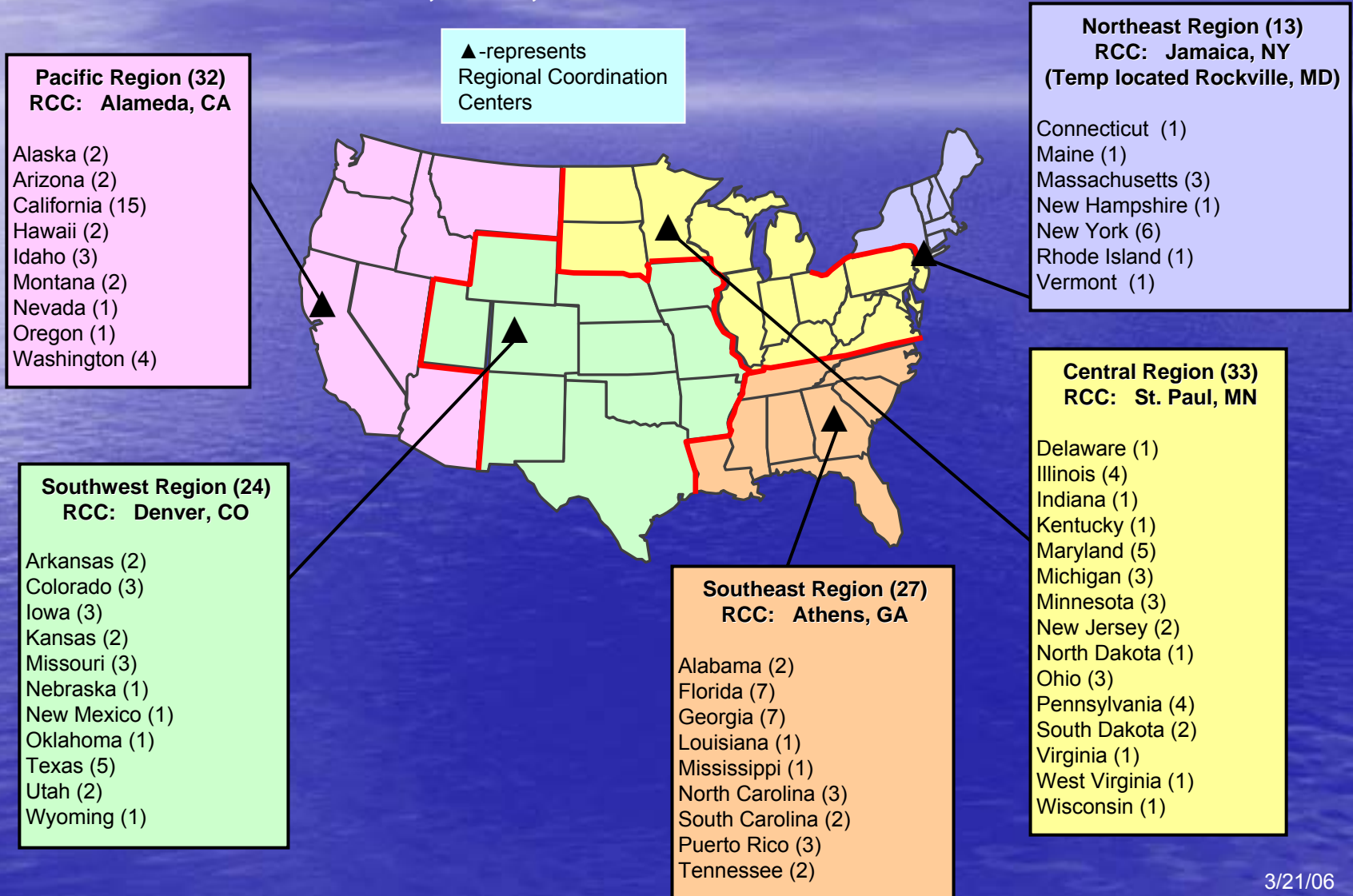
97 State/territory

10 Local

Disciplines – 94 Chemical; 106 Microbiological; 29
Radiological

Food Emergency Response Network

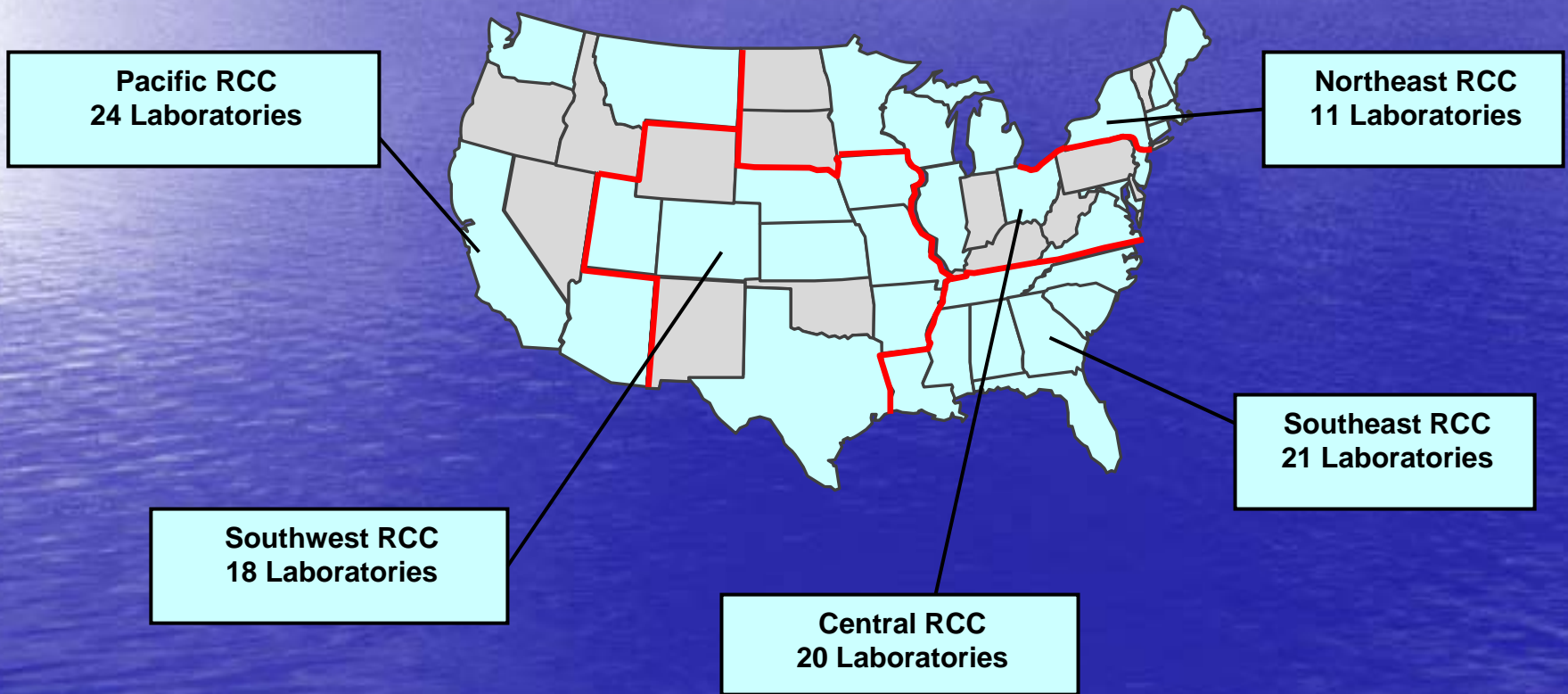
Federal, State, and Local Laboratories



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Chemical Laboratory Participants

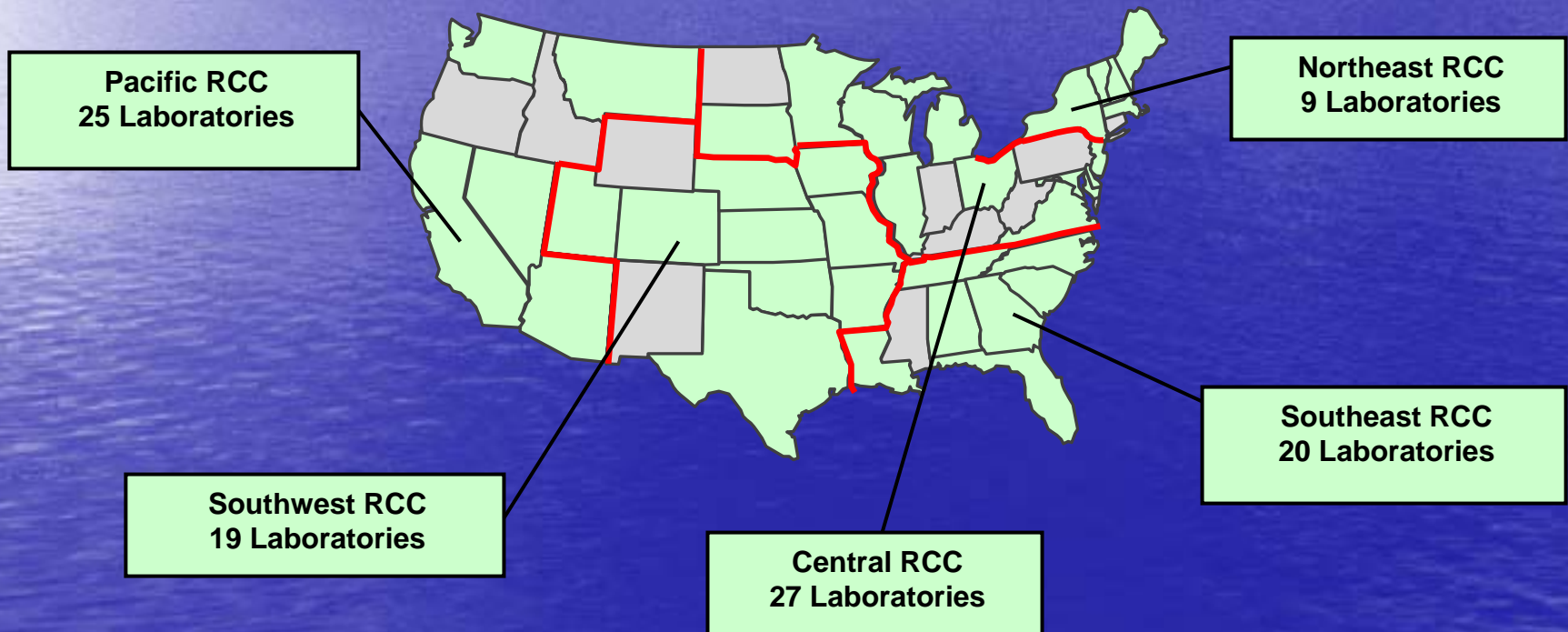
Laboratories shown have satisfactorily completed the FERN Laboratory Qualification Checklist and will be eligible for State Cooperative Agreements pending available funding.



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Microbiological Laboratory Participants

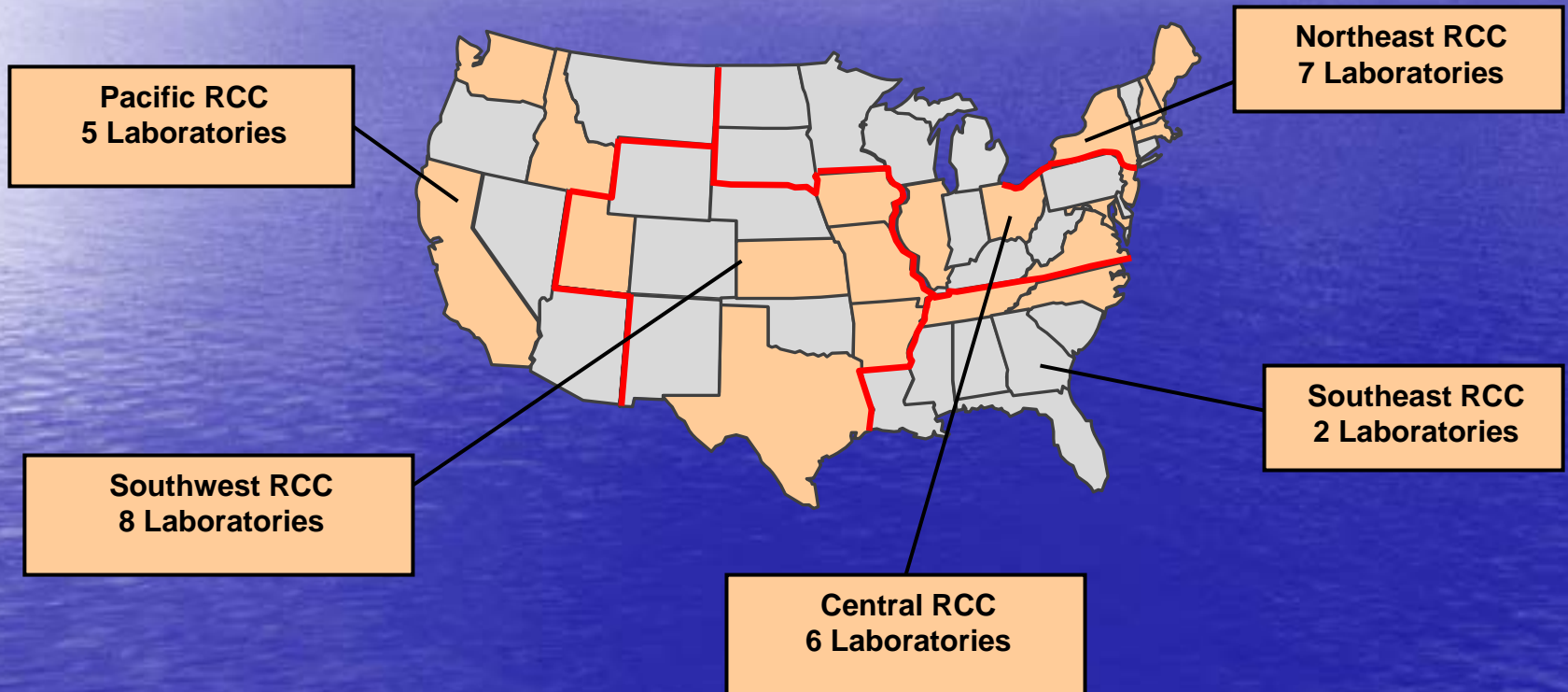
Laboratories shown have satisfactorily completed the FERN Laboratory Qualification Checklist and will be eligible for State Cooperative Agreements pending available funding.



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Radiological Laboratory Participants

Laboratories shown have satisfactorily completed the FERN Laboratory Qualification Checklist and will be eligible for State Cooperative Agreements pending available funding.



FERN Methods

- Developed and Implemented:
 - 8 microbiological
 - 22 chemical
 - 1 radiological
- Method sub-committee - Method SOP developed detailing minimum standards
- methods provide consistent repeatable results
- Method Validation SOP - Chem and Micro
- FERN Methods have also been shared with LRN (approved FERN-LRN Shigella method)

Electronic Communication

- The data capture and exchange mechanism for the FERN is the Electronic Laboratory Exchange Network (eLEXNET).
- FERN uses eLEXNET for Collaboration & Data Sharing:
 - FERN National Program Offices share current information, meeting minutes, documentation, and guidance info
 - FERN Subcommittees conduct discussions, disseminate information, and develop documentation
 - FERN Methods Repository on eLEXNET
 - 113 Lab Participants can review information on samples that have been submitted by eLEXNET's participating labs
 - FERN Proficiency & Surveillance Assignments: FERN related data captured/reported independently

USDA, FSIS, FERN Division Cooperative Agreements:

- Enhancement of Food Emergency Response Network Laboratory Testing Capability for Microbiological Threat Agents.
- FSIS FERN cooperative agreements
 - target State, Local, and tribal **FERN** labs
 - augment micro threat agent testing capacities
 - expand numbers of member laboratories able to perform threat agent testing
- 18 Cooperative Agreements-FY 05/06
- Cooperative Agreements funding for FY 06/07

FERN Surveillance Activities

- The first FERN Surveillance assignment was issued on September 8, 2004 to 40 FERN laboratories.
- The Food Security Surveillance Assignment (FSSA) was issued October 12, 2004 to 9 FDA, 3 FSIS and 4 State FERN labs. This assignment included chemical and microbiological testing of high priority food matrixes.

FERN Surveillance Activities

- The Interstate Travel Program (ITP) was issued on May 3, 2005 to 5 FDA labs, 3 FSIS and 5 State FERN labs. The ITP was the integration of Food Defense into an assignment. This assignment included chemical and microbiological testing of aircraft water.
- The FERN Import Produce Food Defense Assignment issued on November 4, 2005 to 12 FERN laboratories (including FDA, FSIS, and state labs). The assignment incorporated all of the 8 chemistry cooperative agreement laboratories.

FERN Surveillance Activities

- The Total Diet Study Food Defense Assignment was issued on July 6, 2006 to 15 FERN laboratories (FDA, FSIS, and state). This assignment provided an opportunity to allow the laboratories to work with food matrix types that have not been sampled in previous food defense assignments.
- The Food Defense Surveillance Assignment (FDSA) issued March 5, 2007. All participating laboratories are FERN labs. The assignment will focus on school central kitchens, food service, retail and warehouses in addition to food processors.

FERN Surveillance Goals

- Heighten food defense awareness in specific industry segments as well as the FDA and USDA field staff and the State and local counterparts;
- Demonstrate a coordinated system during a period of heightened alert and demonstrate targeted preventive activities at various points in the food supply chain;

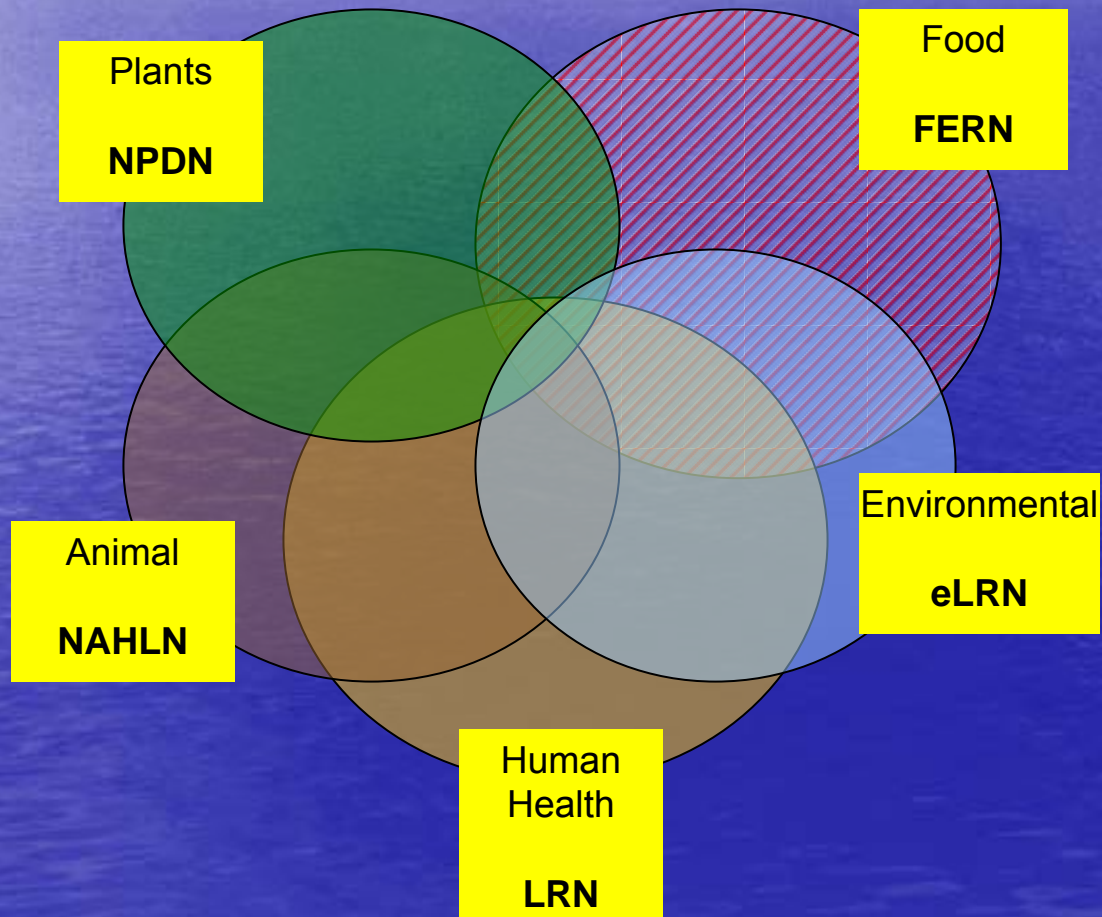
FERN Surveillance Goals

- Integrate food safety and food defense activities by exercising existing infrastructure at the Federal, State and local levels;
- Utilize Food Emergency Response Network (FERN) laboratories to function as an integrated network in order to ensure that they can operate effectively during a food risk incident;

FERN Surveillance Goals

- Sample foods for microbial and chemical contaminants that risk assessments have indicated are the most likely to be used as agents for intentionally contaminating these foods, exposing the FERN labs to an expanded list of food/agent combinations and;
- Identify gaps in the system for responding to a period of increased food risk so that they may be addressed to ensure seamless integration of food defense activities across Federal, State and local agencies and to enhance preparedness in the future

FERN's Integration with Other Networks



POCs

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- DHHS-FDA-ORA **FERN Director**: Vacant



Any Questions?