Integrated Consortium of Laboratory Networks (ICLN)

Brief to 8th Annual Food-borne Pathogen Analysis Conference

July 2006

Agenda

- ICLN Background Information
- Network Coordinating Group Activities to Date
- Responsible Federal Agency (RFA) roles and assignments
- Homeland Security Institute (HSI) Scenario Assessment of Laboratory Capability
- Food Defense Initiatives

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ICLN Functions and Motivators

- Signatories agree to work cooperatively to optimize national laboratory preparedness by improving coordination of laboratory response to incidents
- Promote common standards of performance across all lab response assets to ensure data supporting homeland security decisions is best quality and defensible
- Assess, fill gaps in coverage across multiple sample types, potential victim groups (human, animal, plant), all WMD weapons, all response phases
- Rationalize/enhance relevant interagency budgets
- Recognizes Responsible Federal Agencies' role in assuring capability of networks

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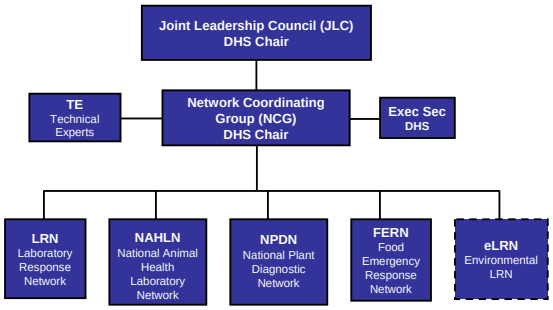
ICLN Organizational Structure



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ICLN Roles and Responsibilities

Joint Leadership Council (JLC)

- Promotes coordinated initiatives. Meets to review ICLN strategic plans, supports coordinated Federal budget development, and makes recommendations in the best interest of the ICLN as a whole.

Network Coordinating Group (NCG)

- Develops and proposes policy and procedures. Establishes the common operating procedures of the ICLN and proposes a comprehensive laboratory network strategic plan that ensures coordination and integration of Networks through harmonization of efforts.

Network Coordinating Group Subgroups

- Functional element of the NCG formed to address high priority elements which are the basis for best-quality lab results supporting Homeland Security decisions. (Methods, Accreditation and QC, Proficiency Testing, Training, Scenarios Dev., and IT Communication and Coordination).

Responsible Federal Agency (RFA)

- In its assigned role, responsible for ensuring the required laboratory capability is available during it's phase of response during an incident.

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Network Coordinating Group
Activities and Accomplishments

- Began monthly meeting schedule in March 2005
- Initiated examination of network roles across response spectrum:
  - *Identified Responsible Federal Agencies*
- Formulated NCG Subgroups to address identified common technical objectives
- Agreed upon priority gaps: environmental analysis capability for CWA and radiological materials
- Conducting scenario based capability assessment
- Adopted CDC SiteScape tool for ICLN collaborative discussion and organization

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JLC Approved ICLN Response Matrix

	Chemical					Biological			
	Lab Support to Phase of Response					Lab Support to Phase of Response			
	Monitoring/ surveillance	Incident Response	Remediation	Forensics		Monitoring/ surveillance	Incident Response	Remediation	Forensics
Human Clinical	HHS	HHS	HHS	FBI	Human Clinical	HHS	HHS	HHS	FBI
Environmental	EPA	EPA	EPA	FBI	Environmental	HHS	HHS	EPA	FBI
Food	USDA/ HHS	USDA/ HHS	USDA/ HHS	FBI	Food	USDA/ HHS	HHS/ USDA	USDA/ HHS	FBI
Animal	USDA	USDA	USDA	FBI	Animal	USDA	USDA	USDA	FBI
Plant	USDA	USDA	USDA	FBI	Plant	USDA	USDA	USDA	FBI
Drinking Water	EPA	EPA	EPA	FBI	Drinking Water	EPA	EPA	EPA	FBI

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JLC Approved ICLN Response Matrix continued

	Radiological			
	Lab Support to Phase of Response			
	Monitoring/ surveillance	Incident Response	Remediation	Forensics
Human Clinical	HHS	HHS	HHS	FBI
Environmental	EPA	DOE/ EPA	EPA	FBI
Food	USDA/ HHS	USDA/ HHS	USDA/ HHS	FBI
Animal	USDA	USDA	USDA	FBI
Plant	USDA	USDA	USDA	FBI
Drinking Water	EPA	EPA	EPA	FBI

- RFAs have been identified at Dept level
- Identified agency responsible for ensuring capability exists, though actual capability may exist in another Dept
- Filling a cell on this chart does NOT mean the capability really needs to exist under current prevailing threat conditions
- *MOAs/MOUs will be required to clarify supporting agency roles and commitments to RFAs*

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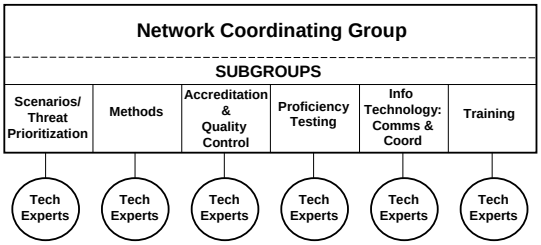
NCG Structure



- Subgroups are functional elements of NCG
- Access to Technical Experts occurs via Subgroups
- Technical Experts can be subject matter experts from govt, academia, professional organizations, or industry.

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NCG Subgroups: Professional Organization Participation

- Subgroups were formulated to address technical objectives (methods; training; accreditation and QC; proficiency testing; information technology; and scenarios and threat prioritization)
  - Subgroups are compiling current data and procedures, looking for commonalities, and identifying gaps.
  - Subgroups will provide to the NCG recommendations which will promote ICLN best practices and process optimization.
- Subject matter experts from government (state, local, and Federal), academia, professional organizations, and business may be Technical Experts to the subgroups as appropriate.
  - Association of Public Health Laboratories (APHL) and American Association of Veterinary Laboratory Diagnostics (AAVLD) have been asked to provide technical consultants for the subgroups.

Non-Federal opinions on laboratory matters is highly valued by the NCG.

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ICLN Scenario Based Capability Assessment

- **JLC Action for NCG:**
  "NCG should engage in studies across several scenarios to define more quantitatively the gaps in current capability and promote improved coordination in response."
- **DHS contracted Homeland Security Institute (HSI) to leverage the Homeland Security Council's Scenarios and other established scenarios.**
  - **Scenarios chosen challenge all ICLN networks**
    - **Chemical CWA**
    - **Chemical TIC**
    - **Chemical in Food**
    - **Biological aerosol attack**
    - **Pandemic outbreak**
    - **Biological in Food**
    - **Biological Foreign Animal Disease**
    - **Biological Plant Infestation**
    - **Radiological/Nuclear Event**
- **HSI is gathering data through the ICLN networks** to compile a report on the current laboratory capability and coordination relating to the scenarios
- Preliminary results reported to DHS Fall 2006

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Food Defense Initiatives: LRN and FERN Coordination

- Collaboration efforts among FDA and FSIS's Food Emergency Response Network (FERN) and CDC's Laboratory Response Network (LRN)
  - Memorandum of Understanding (MOU) between CDC, FDA, and FSIS to establish a framework for collaboration and integration of the operational capabilities of the two networks target for signature in Fall 2006.
  - Established priorities for collaboration with regard to strengthening and integrating the LRN and FERN.
    - Coordinated the respective roles of LRN and FERN throughout the multi phased response matrix.
    - Develop a clear emergency notification and communication algorithm for LRN and FERN throughout the multi-phased response matrix.

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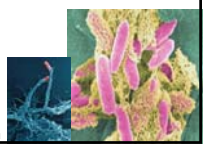
LRN and FERN Priority Collaboration Areas

- Formed a joint FERN/LRN methods committee that identifies and prioritizes method needs and recommend appropriate technologies for development and validation.
  - Coordinates the development, approval, and use of harmonized methods
    - High-priority bio threat agents
    - Conventional food-borne agent
- Inter-network sharing rapid test methods and access to critical reagent production (PCR, TRF, and fluorescent bead technology for high throughput multiplex capability)
- Ensure all FERN and LRN laboratories performing food testing for counter bioterrorism purposes use harmonized and standardized test procedures (where applicable or appropriate), technologies and reagents.
- Facilitate timely exchange and appropriate management of information across networks.



Microscopy image of Shigella and E. coli 0157 in food

LRN and FERN Roles and Responsibilities

- FERN and LRN have established food-testing roles and responsibilities during a bioterrorism multi-phased incident of public health emergency involving the food supply.
  - **LRN Roles and Responsibilities**
    - Testing of clinical specimens for biological and chemical threat agents.
    - Biological agent testing on targeted sampling of food from the incident response phase as relates to human illness, epidemiological investigations and initial characterization of the source of exposure for public health decision making. Includes testing of unknown agents and lab-based surveillance of human disease (e.g. PulseNet).
    - Identifying and definitively characterizing the bio-agent.
    - Promptly communicating events to FERN National Program Office.
    - Testing as referred by FBI.

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LRN and FERN Roles and Responsibilities continued

- **FERN (FDA/FSIS) Roles and Responsibilities**
  - Testing of food products for biological (coordinates with LRN), chemical and radiological agents involving threats directed at food supply.
  - Testing for all food-related events requiring large scale capacity.
  - Recovery testing of food products to restore public confidence in the food supply.
  - Surveillance of the food supply for the presence of potential terrorism agents.
  - Promptly communicating events to LRN.
  - Testing as referred by FBI.

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