

USDA Food Safety and Inspection Service

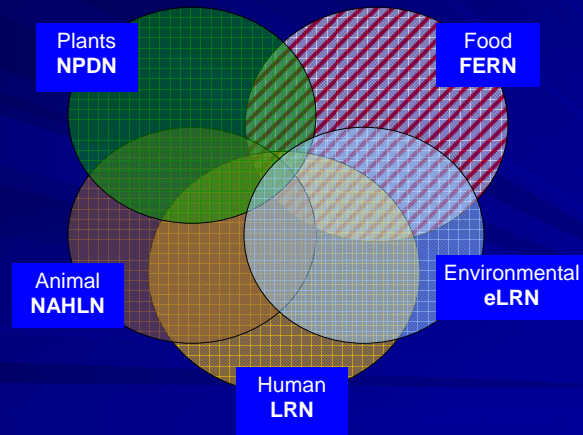


The Integrated Consortium of Laboratory Networks (ICLN)

**7th Annual Foodborne Pathogen
Analysis Conference (FPAC)**
July 20, 2005

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USDA, Food Safety and Inspection Service

FERN's Integration with Other Networks



Laboratory Networks

- Food Emergency Response Network
- Laboratory Response Network
- National Animal Health Laboratory Network
- National Plant Diagnostic Network
- Environmental Network (proposed)

Integrated Consortium of Laboratory Networks

Memorandum of Agreement

Integrated Consortium of Lab. Networks

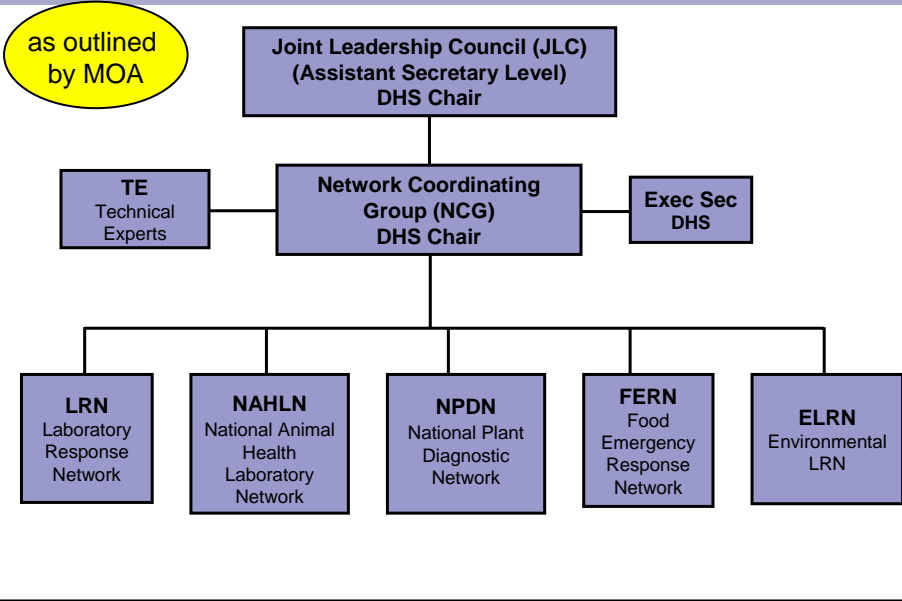
Vision:

“A U.S. homeland security infrastructure with a coordinated and operational system of laboratory networks that provide timely, high quality, and interpretable results for early detection and effective consequence management of acts of terrorism and other events requiring an integrated laboratory response.”

Purpose of the Agreement

- Define Federal relationships by establishing a leadership structure
- Respect existing network policies and procedures

ICLN Organizational Structure



ICLN Signatories

Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
Department of Homeland Security
Department of the Interior
Department of Justice
Department of State
Environmental Protection Agency

Commitments of the Signatories

- Perform as Responsible Federal Agency
- Provide representative to the Joint Leadership Council
- Provide representative to the Network Coordinating Group
- Support Technical Committees
- Support each other

Next Steps

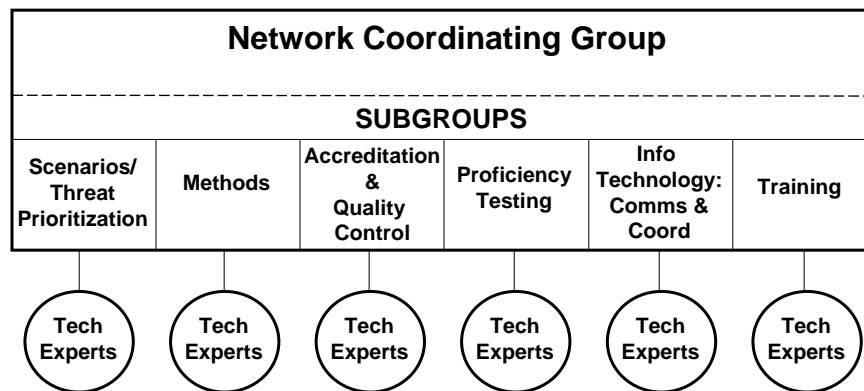
- First task of NCG is to develop a work plan
- Examples:
 - Matrix of Responsible Federal Agency roles
 - Identify network gaps
 - Information management
 - Proficiency testing requirements
 - Training and sampling guidance
 - Testing methods, including “promoting standardization where appropriate”

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	LRN	LRN	LRN	LRN	Human Clinical	LRN	LRN	LRN	LRN
Environmental	ELRN	ELRN	ELRN	FBI	Environmental	LRN	LRN	ELRN	FBI
Food	FERN	FERN	FERN	FERN	Food	FERN	LRN/FERN	FERN	
Animal	NAHLN	NAHLN	NAHLN	NAHLN	Animal	NAHLN	NAHLN	NAHLN	NAHLN
Plant	NPDN/ FERN	NPDN/ FERN	NPDN/ FERN	NPDN/ FERN	Plant	NPDN	NPDN	NPDN	NPDN
Drinking Water	Water Alliance	Water Alliance	Water Alliance	Water Alliance	Drinking Water	Water Alliance	Water Alliance	Water Alliance	Water Alliance

Concerned with radiological as well
... Still a work in progress!

NCG Organizational Structure



- Subgroups are functional elements of NCG
- Access to Technical Experts occurs via Subgroups

NCG Subgroups

- Scenarios/agent prioritization
- Methods
- Proficiency testing
- Training
- Accreditation/quality control
- IT/data exchange/communications

Integrated Consortium of Laboratory Networks (ICLN)

Network Coordinating Group (NCG) Scenarios and Threat Prioritization Subgroup

June 28-29, 2005



STP Charter

For the Homeland security CBR laboratory community

I. **Support an ongoing annual cycle of review and recommendation**

- A. Assessment and characterization of threats
 - 1) Intelligence, Defense, Homeland, and Lab analyses
- B. Analysis of present capabilities and capacities
 - 1) Lab Analyses
 - 2) Networks including State and Local Labs
- C. Review, recommend, develop and test projections based on scenarios to add context
 - 1) Exercise the response matrix
- D. Identification of Gaps
 - 1) Networks to address response
- E. Recommendations for coordinated strategies
- F. Communicate issues and results appropriately to relevant communities
 - 1) Assume that NCG is the ultimate end user of this analysis
 - 2) Feedback to individual laboratories

II. **Adhoc meetings to address specific issues**

- A. Specific emergency issues, new agents, vulnerability assessment results,

NCG Subgroup STP

Objectives

➤ **Establish priorities for threat agents and the scenarios for which national laboratory assets will be called to action**

➤ Link to DHS and other sources of threat, vulnerability and risk assessment to drive scenario development activities

➤ Vulnerability assessments from individual agencies can be used as part of the prioritization

➤ Analyze, enhance and create scenarios to address laboratory details, for incident response, eg surge capacity, for requirements including sample collection, processing, transport, testing, and reporting

➤ Map of agencies and their capabilities to respond – call to action/orchestration – first responder to federal decision maker

NCG Subgroup STP

Objectives

➤ Define priorities for new Research and Development based on resources and anticipated laboratory requirements

- Examining existing R & D and individual agency strengths to support common strategy
- Develop a common list of agents
- New assays for new agents (how these will be used and primary and secondary responsibilities)
- New assays for agents with intent to improve timeliness of results; accuracy of results; characterization of agents (e.g., fingerprinting); autonomous testing; testing in a new matrix (design of assay, cross organizational acceptance, interoperability)
- New assays focused on monitoring rather than response to a threat (e.g., matrix collection and concentration methods; screening tests for broad classes of contaminants)
- Identify, support and seek funding for new science investments that would revolutionize problem solving for unknown agents

Integrated Consortium of Laboratory Networks (ICLN)

Network Coordinating Group (NCG) Methods Subgroup

June 28-29, 2005



NCG Methods Subgroup

Charter

The process of methods development and validation is time consuming and expensive. The purpose of the NCG methods subgroup is to determine needs and identify available and in process methods and provide a mechanism to coordinate development, validation, and deployment. Facilitate cross collaboration between networks and agencies to increase efficiency, transparency, and consistency.

NCG Methods Subgroup

Objectives

- ✓ Facilitate information exchange on the best practices for the analysis of priority analytes
- ✓ Ensure that appropriately validated methods are available for all priority agents and matrices
- ✓ Promote the harmonization of methods between agents and networks (interoperability)

Integrated Consortium of Laboratory Networks (ICLN)

Network Coordinating Group (NCG) Proficiency Testing Subgroup

June 28-29, 2005



PT Subgroup Charter

The PT NCG subgroup was formed by ICLN to address coordination, requirements for operation, conservation of resources and best practices of proficiency testing. The PT NCG subgroup will provide knowledge, expertise, and status of existing PT programs, and provide roadmap for moving forward in a collaborative manner where appropriate and feasible. This subgroup is comprised of representatives of different agencies and networks that are involved in emergency response for biological, chemical and radiological terrorism and other public health emergencies.

The focus of this group is to reach a consensus of PT criteria by establishing general threshold parameters and best practices; to create a process for coordinating among the existing and developing PT programs of each networks; to coordinate with other subgroups to assure that PT framework is appropriate for needs and provide a mechanism for feedback to NCG and other subgroups; and to ensure that ICLN members consistently obtain reliable results of documented quality.

Draft June 29, 2005

Objectives

- Create Coordination Process among existing PT programs/networks and NCG subgroups
- Reach consensus on PT Program Criteria
- Develop a compendium of threshold parameters for proficiency testing acceptable among all networks of ICLN

Draft June 29, 2005

Integrated Consortium of Laboratory Networks (ICLN)

Network Coordinating Group (NCG) Training Subgroup

June 28-29, 2005



Training - Charter

The Training Subgroup will serve as the focal point for training guidance for ICLN members. The Subgroup will act as a conduit of best practices, and will catalogue training programs among members. The Subgroup will promote sharing of training opportunities and resources to increase the Consortium knowledge base. Membership on the Subgroup should include at least one named member from each signatory agency and one or more members from non-federal constituents.

Training - Objectives

- Meet the needs of the ICLN while respecting the needs of the of the individual networks.
- Each member agency will establish and document formal training requirements for its constituent members to meet the responsibilities of the network to provide competent personnel to produce timely, accurate, and interpretable results
- Training programs should include objective measures of success consistent with the recommendations of the Methods, Performance Testing, and Accreditation Subgroups.

Training - Objectives

- Training programs should consider:
 - The purpose of the training
 - Who is to be trained
 - What the training will entail
 - How the training will be conducted
 - The frequency of the training

- Create a forum where training opportunities are shared

Integrated Consortium of Laboratory Networks (ICLN)

Network Coordinating Group (NCG) Accreditation and Quality Control Subgroup

June 28-29, 2005



Objectives

- ◆ Identify current standards and practices for accreditation and/or assessment of competence and data reliability and quality control
- Identify best practices among current laboratory network activities
- Develop recommended threshold requirements (for both routine and response situations) to ensure reliable, actionable data is provided to decision makers

Integrated Consortium of Laboratory Networks (ICLN)

Network Coordinating Group (NCG)

Information Technology Communication and Coordination (ITCC) Subgroup

June 28-29, 2005



NCG Subgroup Information Technology Communications and Coordination Subgroup

Charter: Information Technology Communications and Coordination (ITCC) Subgroup

The goal of the Information Technology Communications and Coordination (ITCC) subgroup of the Integrated Consortium of Laboratory Networks (ICLN) is to identify and recommend standards and implementation strategies for data collection, management and exchange to create a national network for the sharing of laboratory information. The network will require timely sharing of information across multiple local, state and federal government agencies and partner private sector entities to support surveillance, monitoring, response and remediation capacity. The design and implementation of this network must include standardized and integrated approaches to terminology, electronic reporting formats, data transport, directory services and security. In order to provide immediate minimum capacity and accommodate future growth, the laboratory network needs to have an architecture that allows for participation by labs with lesser technical capacity as well as those with more advanced infrastructure.

NCG Subgroup ITCC

Objectives

- Identify minimum standard(s) for timely reporting of interpretable data for decision makers.
- Identify standard business processes which require the collection and sharing of information in a timely manner, while maintaining enough flexibility to ensure the simplified addition of new processes.
- Integrate information technology (IT) into ICLN business process.
- Establish and maintain standards and implementation strategies for ensuring data integrity, security, and confidentiality within and beyond the laboratory
- Establish a distributed network of repositories containing common data elements and their meanings (metadata). These repositories are owned and maintained by the agency with appropriate expertise for specific domains. Each metadata repository will contain a standard list of definitions and values for data elements and provide a crosswalk with other data elements in the same domain or across domains

NCG Subgroup ITCC

Objectives

- Establish processes and standards for implementing electronic chain of custody
- Maintain a laboratory registry which utilizes existing directory services standards and contains information such as: Exchange routing criteria, security profiles, laboratory capacity and capability, laboratory accreditation and laboratory points of contact
- Identify or establish and maintain standards and implementation strategies for ensuring data integrity, security and confidentiality within and beyond the laboratory
- Minimize the number of interfaces laboratories must negotiate to report data to different agencies and partners. The goal is to have a single interface for all partners, whether sending or receiving
- Establish a governance process that will secure funding and resources, develop implementation strategy and manage the implementation, refinement and maintenance of the network