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The Integrated Consortium of Laboratory Networks Newsletter

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The Integrated Consortium of Laboratory Networks (ICLN) is a system of interconnected federal laboratory networks that can quickly respond to high-consequence incidents and give decision makers timely, credible, and interpretable data.

NETWORK SPOTLIGHT:

Highly Pathogenic Avian Influenza – Network Strength

We have now surpassed the three-year anniversary of the initial confirmation of highly pathogenic avian influenza (HPAI) in domestic poultry in Indiana on February 8, 2022. And as seems to be part of this entire outbreak, new unique challenges presented themselves within the last six months. As numbers of both positive poultry and dairy premises rapidly skyrocketed in California, the immense value of the “network” in the NAHLN came into the spotlight.

As the only NAHLN Laboratory in the state, the California Animal Health and Food Safety (CAHFS) Laboratory at Davis reached out to the NAHLN Program Office to ask for assistance. Multiple laboratories heeded the call to either deploy personnel to the CAHFS Laboratory to assist with HPAI testing there, accept diverted samples from California to be tested at their laboratory, and, in some cases, both. Samples for outbreak-associated HPAI testing, outbreak-associated rapid research, USDA epidemiological studies, FAD investigations, and multiple surveillance testing streams for various diseases within NAHLN’s scope of responsibility were diverted to seven other NAHLN laboratories. These laboratories worked diligently to communicate with the California Department of Food and Agriculture, maintaining outstanding turn-around times and results distribution.

While one laboratory can have their testing capacity overwhelmed, the cumulative capacity of the network is there to support surge needs. The NAHLN was formed with that very purpose in mind, and the last several months have proven the success of that plan. As the NAHLN Laboratories now work through the details of supporting their state’s testing needs as part of the National Milk Testing Strategy, they are once again sharing ideas, lessons learned, and examples of successes with one another to move the entire network forward as we all work towards fulfilling the current needs of our stakeholders, states, and American agriculture.



Photo: USDA

ICLN Establishes the Data Standardization Subgroup

In the first quarter of FY 2025, the ICLN established a new subgroup focused on data standardization, known as the Data Standardization Subgroup. The mission of the subgroup is to formulate “a set of agreed upon data elements/attributes in an agreed upon format appropriate to record and communicate results of chemical, biological, and/or radiological analyses of samples submitted for laboratory analysis.” The goal is to enhance

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the sharing, aggregation, and analysis of analytical data to provide timely information. This will facilitate effective decision-making by the sector-specific responsible lead agency or agencies during incident responses involving the broad range of sample types covered by the ICLN's incident response operational obligations.

The effort builds on the work of prior workgroups that established and refined a comprehensive set of data elements and their definitions, known as the ICLN Minimum Data Elements (MDEs). This foundational work enabled the development of the Data Exchange Utility (DEU) on the ICLN Portal. Through the DEU, ICLN member networks can upload and aggregate data relevant to jointly executed incident responses. As agency perspectives on data elements and their definitions evolve, the ICLN will periodically review its MDEs to ensure they remain current and effective.

In addition to refining the ICLN MDEs, the Data Standardization Subgroup will provide feedback on anticipated changes within the ICLN Portal and DEU. Specifically, the subgroup will explore methods to simplify upload of network data to the DEU and create greater flexibility in aligning network data to the MDE format. Currently, the DEU operates under a relatively rigid data format that network data feeds are expected to conform to. Although this approach works under most circumstances, observations during system exercises have revealed occasional misalignment of submitted network data to the MDE format. The collaborative efforts of the ICLN Portal IT team in concert with the Data Standardization Subgroup aim to enhance the overall fidelity of data to the required format.

Finally, the longer-term vision of the ICLN incorporates a potential for integration of data across the full set of analytical laboratory domains. This integration would enable a larger set of laboratory associations beyond ICLN member networks to work together to address a major incident. A key enabler is the adoption of data elements and associated definitions that are understood and accepted across a greater set of domains. Toward that objective, the subgroup will be responsible for administering and supporting activities regarding a new Analytical Laboratory community under the auspices of the National Information Exchange Model ([NIEM](#)). The refined ICLN MDEs and definitions will serve as a reference point for establishing data nomenclature that meets the needs of the broadest set of users and stakeholders.

Laboratory Logistics Subgroup

In 2024, the ICLN Laboratory Logistics Subgroup was reinvigorated after being shuttered since 2012. The mission of this subgroup focuses on reducing risk associated with resource constraints imposed by large scale incidents that are likely to cause logistics disruptions in conjunction with the surge in operational requirements. The reimagined mission of this subgroup is to develop recommendations and an outline for a framework with supporting justification to address laboratory logistics shortfalls. This includes challenges identified from previous reviews documented in the "ICLN COVID-19 Lessons Learned" and the "ICLN Laboratory Logistics Limiting Issues" reports, available below.

The course of action for the Laboratory Logistics Subgroup includes the following:

- The subgroup will initially focus on **critical laboratory material needs** (equipment, instrumentation, supplies, and other consumable items) that could be in limited supply during a major national emergency response and required to conduct laboratory analyses for each of the network threat agents and matrices.
- The subgroup will then develop a laboratory logistics "**critical inventory**" **itemized list** intended to support long term surge operations. This includes information related to available sources of supply, shelf-life, whether an item is durable or consumable, and note any low-density items that are possible single points of failure.
- The subgroup will explore options to ensure **timely availability and ease of distribution** of these critical laboratory resources, such as local and/or centralized warehousing strategies, depending on the resource type and anticipated sample requirements.

The Laboratory Logistics Subgroup is building upon previously created ICLN documents.

The "ICLN Laboratory Logistics Limiting Issues" report is available on the [ICLN website](#).

Please contact the [ICLN](#) for the "Unique Resource Listing" and the "ICLN COVID-19 Lessons Learned" documents. These documents can be released to those with appropriate federal government permissions.