



## Train the Trainer

NVSL developed and continues to run a “train the trainer” program to increase the number of laboratories with personnel trained to conduct diagnostic tests for AI, ND, CSF, FMD, and IAV-S. This program has not only increased the number of laboratory personnel prepared to respond to a national animal health emergency, but also provided the United States with a cadre of trainers available to teach others when needed. The success of this program is a significant step for the NAHLN in achieving its goals of sufficient diagnostic capability and capacity to address an animal health emergency.



## Information Technology Plays Its Part

Information technology systems continue to be improved to support the NAHLN vision by providing electronic interconnectivity between diagnostic sample collectors, NAHLN laboratories, and national databases. NAHLN uses data and messaging standards established by the veterinary medical and public health communities to ensure that diagnostic information is quickly and accurately shared with network labs and decisionmakers.

The NAHLN Portal is a secure Web site that allows network laboratories to exchange information with the NAHLN program office (i.e., standard operating procedures, proficiency testing status, financial agreements, and assay performance monitoring data) efficiently. By streamlining information sharing, the NAHLN Portal better enables the network to respond to adverse animal health events.

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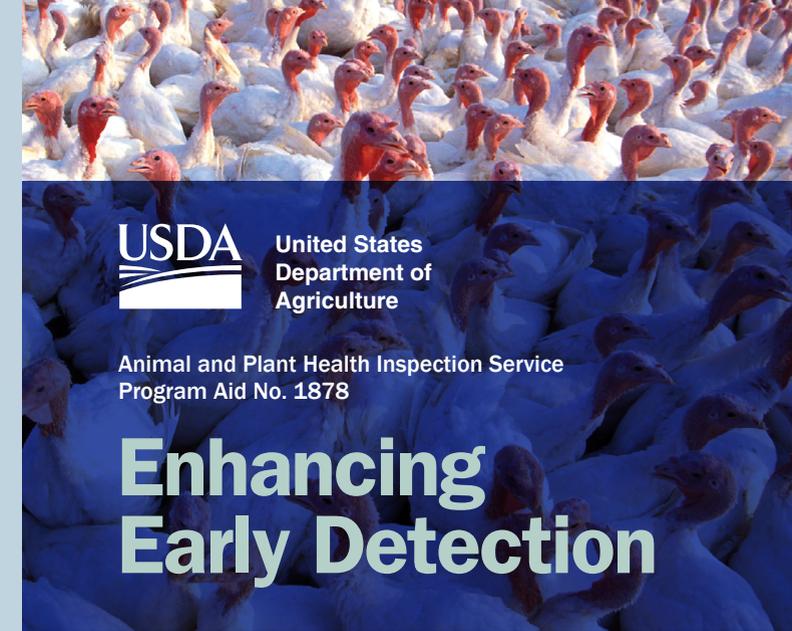
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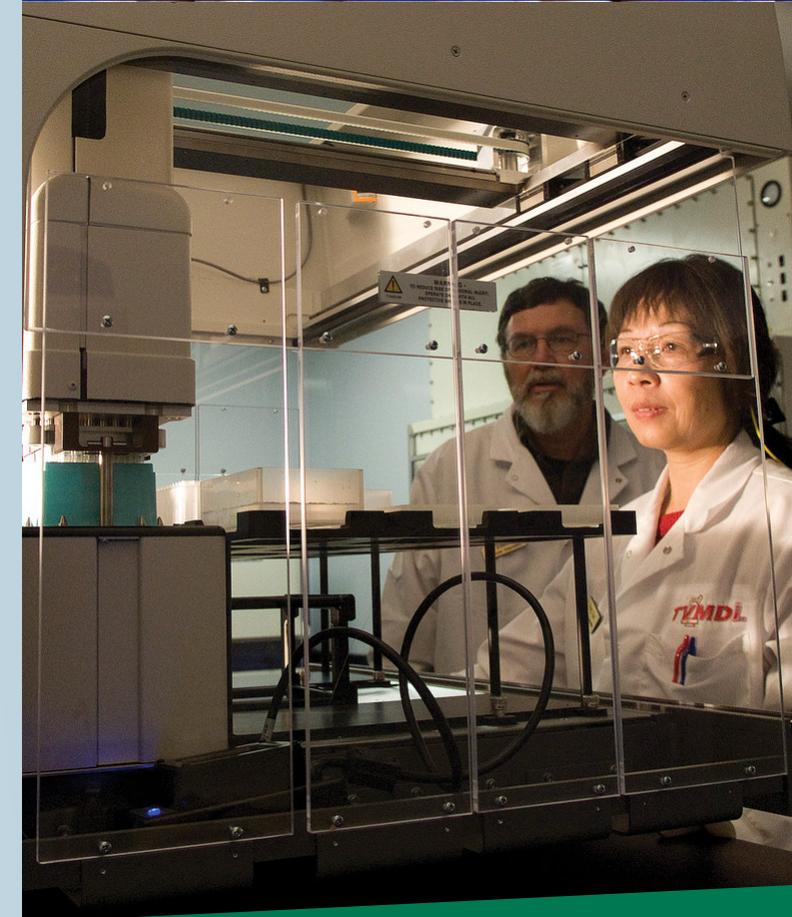
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# Enhancing Early Detection



**National  
Animal Health  
Laboratory Network**

When a large-scale animal disease outbreak occurs, tracking its progress and performing diagnostic tests on thousands of biologic samples is a big challenge. To get the job done, it is very important that all the parties involved—Federal agencies and laboratories managed by State governments and universities—communicate and collaborate effectively. The National Animal Health Laboratory Network (NAHLN) forms part of a nationwide strategy to coordinate the work of all organizations providing surveillance and testing services.



### The Roles of NAHLN Cooperators

The NAHLN is a cooperative effort between two U.S. Department of Agriculture (USDA) agencies—the Animal and Plant Health Inspection Service (APHIS) and the National Institute of Food and Agriculture—and the American Association of Veterinary Laboratory Diagnosticians. It is a multifaceted network composed of sets of laboratories that focus on different diseases. All of the network's laboratories use common testing methods and software platforms to process diagnostic requests and share information.

The State and university laboratories in the NAHLN perform routine diagnostic tests for endemic animal diseases as well as targeted surveillance and response testing for foreign animal diseases. State and university laboratories also help develop new test methodologies.



Personnel in NAHLN laboratories are approved to conduct screening tests to detect various animal diseases, including avian influenza (AI), Newcastle disease (ND), bovine spongiform encephalopathy, chronic wasting disease, scrapie, classical swine fever (CSF), foot-and-mouth disease (FMD), vesicular stomatitis virus, pseudorabies virus, and influenza A virus in swine (IAV-S).

At the Federal level, USDA's National Veterinary Services Laboratories (NVSL) serves as the national veterinary diagnostic reference and confirmatory laboratory. NVSL participates in methods validation and provides training, proficiency testing, assistance, materials, and prototypes for diagnostic tests. The NAHLN program office coordinates all network activities, ensuring that all participating laboratories have laboratory review and approvals based on their quality management systems; appropriate standardized operating procedures, permits, and equipment; secure mechanisms to provide standardized data; and funding mechanisms in place for financial reimbursement.

Networking these resources provides an extensive infrastructure of facilities, equipment, and personnel geographically accessible no matter where disease strikes. The laboratories have the capability to conduct nationwide surveillance testing for the early detection of an animal disease outbreak. They also have the capacity to test large numbers of samples rapidly during an outbreak and demonstrate that our country is free from the disease after it's been eradicated.



### The Bigger Picture

The NAHLN provides diagnostic testing to identify biological threats to our Nation's animal agriculture—a critical service that helps protect animal and public health. In this role, NAHLN stands as a first responder for detecting disease outbreaks early and alerting animal health officials quickly so they can set up an effective emergency response. Early detection and warning are essential to keep disease from spreading and minimize its impact. The NAHLN conducts testing under a quality management system to maintain accurate, consistent results. This commitment to quality in our national diagnostic network helps generate trust among global trading partners and increase consumer confidence in the U.S. food supply.

Key elements of the NAHLN system include increased and more flexible capacity for laboratory support of routine and emergency animal disease diagnosis and official responses to bioterrorism events; standardized, rapid diagnostic techniques used at the State, regional, and national levels; secure systems for communicating, issuing alerts, and reporting; and modern equipment and experienced personnel.

Other important aspects of the NAHLN include national training; upgraded facilities that meet biocontainment and physical security requirements; regional and national training exercises to test and evaluate the network's communication and reporting protocols during an animal health emergency; and laboratory review and approval processes consistent with American Association of Veterinary Laboratory Diagnosticians and International Organization for Standardization 17025 quality standards.

