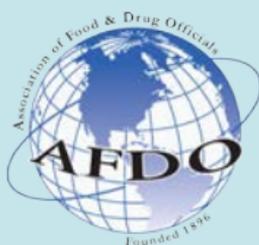


Preparing Food and Feed-Testing Laboratories for the Future of Data Exchange

The Associations Cooperative Agreement with FDA



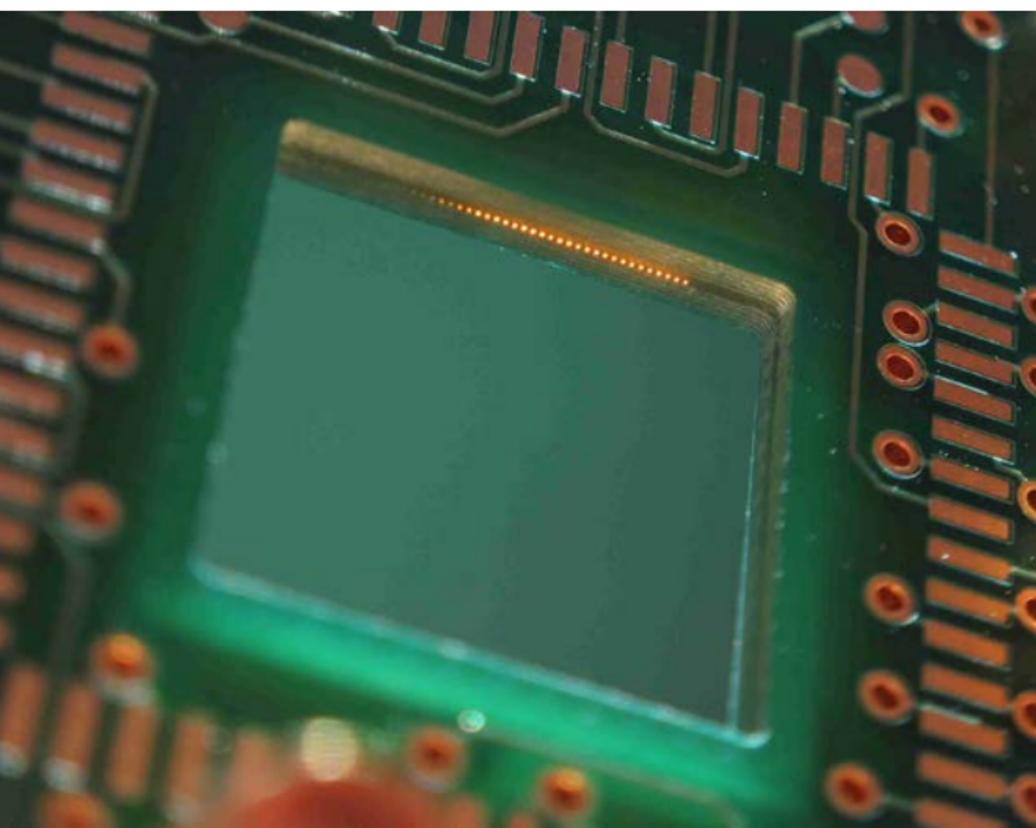
Specific Aim #3: Rapid Sharing of Laboratory Data



Preparing Food and Feed-Testing Laboratories for the Future of Data Exchange

Through a cooperative agreement with FDA's Office of Partnerships, APHL, AFDO and AAFCO are working with state laboratories to enhance data exchange efforts. This multi-tiered initiative will ensure that laboratory results are available to investigators during outbreaks and for long-term surveillance. Objectives of the work include:

- Development of standards and mapping tools for the rapid sharing of laboratory data.
- Implementation and maintenance of reliable, efficient data exchange for a continued response to foodborne disease outbreaks.
- Alignment of multiple standards across jurisdictions and agencies to create an integrated and interoperable Food Safety System.
- Automated reporting to ease the reporting burden for food/feed laboratories, while simultaneously increasing the completeness, frequency, detail and standardization of the data sent.





Specific Aim #3: Rapid Sharing of Laboratory Data

Establish nationally accepted models for the rapid sharing and acceptance of laboratory data by FDA (and partnering regulatory agencies) in order that those agencies may pursue regulatory action and advance public and animal health.

Under this Specific Aim, APHL is leading efforts to:

- Conduct a period of discovery regarding the current landscape of food and feed-testing laboratory data.
- Establish a National User Group with expertise in food/feed data exchange to serve as a resource for APHL and partners on all matters pertaining to food/feed data elements, standards and exchange.
- Develop standards for food/feed data elements.
- Recommend new approaches that will fulfill the needs of food/feed laboratory data exchange.

Member Involvement

- The National User Group, made up of members from APHL, AAFCO and AFDO with expertise in data exchange, are working on Specific Aim #3.
- The Group is communicating information about FDA's initiatives and specific improvements of the Electronic Laboratory Exchange Network (eLEXNET) database to laboratorians and the broader public health community.
- The Group is beta testing eLEXNET upgrades and modifications.
- The Group is developing data standards for the electronic exchange of food and feed-testing laboratory results, as well as identifying the minimum data elements required for adequate data exchange.
- The Group is serving as the voice of public health as FDA develops its approach to data exchange.

Changes to the National User Group

- Evaluate the documented technical and standards work found during the discovery period.
- Identify existing, and recommend new, approaches that will serve food and feed laboratory data exchange needs.
- Evaluate the need for further standardization within FDA required eLEXNET data elements.
- Create a forum for discussion of messaging, vocabulary standardization and data transport among food/feed laboratories.

Accomplishments

Complete Discovery Document

Key findings of the discovery period include:

- Testing volume, data exchange capabilities and informatics needs of food and feed-testing laboratories can vary significantly. A tiered solution to data exchange would enable efficient protocols for laboratories of varying size and testing volume, with web portals and manual entry for small laboratories, file uploads for medium-volume facilities and electronic messaging for larger organizations.
- Most laboratories report to multiple agencies or programs, each with different reporting protocols, acceptance criteria, required data elements and message formats, creating a significant burden for the laboratory. Most laboratories continue to fulfill at least some reporting requirements with hard copy or emailed reports.
- There is limited adoption of vocabulary standards such as Chemistry Abstracts Service (CAS), Logical Observation Identifiers Names and Codes (LOINC®) or Systematized Nomenclature of Medicine--Clinical Terms (SNOMED-CT). Without consistent coding of laboratory methods and testing results, the comparison of information across multiple laboratories without time-consuming recoding of the data is difficult or in some cases impossible.

The full text of the [Discovery Document](#) is available on the APHL website.

Conduct Outreach

APHL will present the results of its discovery document at a series of nationally-recognized conferences in 2014, and FDA will offer webinars to introduce new users to the eLEXNET system and features. APHL members should also look for items about eLEXNET's changes in *Lab Matters* and in APHL's weekly eUpdate.

Improve eLEXNET

FDA's eLEXNET is one of the few databases that pools food and feed-testing data from multiple jurisdictions and programs. Based in part on APHL's research, FDA is implementing a number of improvements to the eLEXNET system, including infrastructure upgrades to create more dynamic use of the data and website, increase the amount of data in the system, and encourage data use by state and federal agencies.

Impact

- Enhanced and improved partnerships among the three associations, their members and FDA, as well as between state food and feed-testing laboratories and FDA, leading to more efficient and effective food protection efforts.
- Progress towards a unified food/feed laboratory system, which will ensure that test results from state and local laboratories are available to food safety investigators.
- Creation of an atmosphere for personnel from both food/feed laboratories, surveillance programs and eLEXNET to interact and learn from one another regarding best practices and solutions to daily challenges in achieving and maintaining the rapid sharing of laboratory data.

If you are interested in any of the initiatives described in this brochure, or would like to get involved, contact Vanessa Holley, APHL Senior Specialist, at vanessa.holley@aphl.org.

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