

ELINCS Specifications Released in California

➤ Labs will face big challenges when data and coding standards proliferate in 2012 and beyond

➤➤ **CEO SUMMARY:** *Clinical laboratories and pathology groups have a new tool to use for interfacing their LIS (laboratory information systems) with the electronic health record (EHR) systems of their office-based physician clients. It is ELINCS, an IT standard designed to support electronic lab test orders and lab test reporting. The California HealthCare Foundation sponsored the creation of ELINCS and it was accepted by HL7 in 2008. In California, there are already more than 200 provider sites using ELINCS.*

LAST MONTH, THE COMPLETION of the ELINCS Orders specification was announced by the **California HealthCare Foundation (CHCF)**. This is a key step to facilitate the transmission of lab orders and lab results between physicians and clinical labs.

Lab administrators and pathologists will want to learn more about ELINCS, which stands for (EHR-Lab Interoperability and Connectivity Specification). It is designed to standardize the formatting and coding of messages exchanged between laboratories and electronic health record (EHR) systems.

The ELINCS Orders specification is specifically designed to allow physicians to electronically send orders from EHRs to laboratories and for labs to electronically transmit electronic test results back to EHRs in a readable format.

The development of ELINCS was sponsored by the California HealthCare Foundation with the primary goal of improving the way laboratory test data move between laboratories and all classes of providers. CHCF sees this as a necessary step on the path to the tighter integration of

clinical care, as well as the further integration of the healthcare informatics required to support integrated clinical care.

Development of ELINCS began in 2005. CHCF brought together EHR vendors, commercial lab companies, professional associations, nonprofit associations, and government agencies. By early 2011, more than 56 organizations in California had either implemented an ELINCS interface or were in the process of implementation. These organizations represent more than 200 healthcare provider locations.

Among the California labs now using ELINCS are **Foundation Laboratory, Laboratory Corporation of America, National Health Services, Inc., Pathology Associates Medical Laboratory (PAML), Quest Diagnostics Incorporated, and Sierra View District Hospital.**

Release of the ELINCS specifications is a significant development for the laboratory testing industry. "This is an important specification because the federal **Office of the National Coordinator for Health Information Technology (ONC)** is preparing a fast-track implementation guide to facilitate the transfer of informa-

tion from labs to physicians' EHRs," stated Ken Willett. He is President, CEO, and Chief Technical Officer of **Ignis Systems, Inc.**, a company in Portland, Oregon, that links labs with physicians' electronic health record (EHR) systems.

"The ONC is responsible for the meaningful use criteria used by physicians when they adopt EHRs," he noted. "The ONC's Standards & Interoperability Framework references ELINCS as a starting point."

The ELINCS specification, which was accepted by HL7 in 2008, may be a challenge for lab IT departments. "That's because many laboratories do not currently comply with the standards needed to make ELINCS work seamlessly," observed Willett. "That is equally true of the physician EHR systems to which labs are interfacing, as many of these EHR systems are themselves not up to these standards.

► Stepping Up To HL7 v.2.5

"Take the example of HL7 (for Health Level Seven), which is a standard for exchanging information among medical applications," said Willett. "Although the current version of HL7 is 2.5, only a small percentage of laboratory interfaces nationwide are based on HL7 2.5.

"For ELINCS to have maximum utility, labs and EHR systems will need to move up from the HL7 version 2.3 or 2.4 they currently use to HL7 version 2.5 and eventually to HL7 2.7," he added. "Another hurdle to ELINCS adoption is the need for providers to implement ICD-10 before the October 1, 2013, deadline set by the federal government.

"The ONC is unlikely to require compliance to the ELINCS or HL7 2.5 standards for labs and EHRs in the second phase of meaningful use requirements," noted Willett. "For the reasons listed above, if ONC tried to mandate ELINCS in the meaningful use standards, I would expect to see a lot of push-back from clinical laboratories." **TDR**

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ELINCS Uses LOINC For Specific Purposes

BEFORE THE ARRIVAL OF ELINCS, laboratories had the option of either developing a proprietary system or using LOINC—Logical Observation Identifiers Names and Codes — as a method for sending and receiving laboratory and clinical data from office-based physicians and other types of providers.

Some experts and the California HealthCare Foundation suggest labs use both ELINCS and LOINC, but doing so could be problematic. "LOINC is so fine-grained, that there are generally multiple codes for the same test," stated Ken Willett, President, CEO, and Chief Technical Officer of Ignis Systems. "Therefore getting consistent mappings from different labs is unlikely.

"In fact, the ELINCS specification references LOINC and provides a list of basic tests and the corresponding LOINC codes that labs should use for results for those tests," observed Willett. "This feature emphasizes LOINC codes for the 100 common laboratory tests that represent about 80% of the total volume of all laboratory tests that are ordered.

"But there is an important difference in the wording between the original ELINCS specification and the current HL7 2.5.1 Ambulatory Care Lab Result (ELINCS) spec," he said. "In the former, about 100 tests were identified and there were one or more LOINC codes specified for each. The implication is that to be ELINCS compliant, one of those LOINC codes must be used.

"The HL7 specification lists a somewhat larger set of about 150 tests, which represent 95% of all ordered tests," Willett explained. "But the list of tests does not contain the LOINC codes; it contains the parameters from which LOINC codes would be defined. Thus, there is the requirement to use LOINC with a guide to code selection but the specific codes for these common tests are missing.

"In my view, this approach by HL7 is more flexible," concluded Willett. "But it also makes conformance testing problematic."