LABORATORY EFFICIENCY INITIATIVE (LEI) INFORMATICS
CDC –APHL SECOND CONSULTATION
MEETING SUMMARY

Background:

- The Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories (APHL) have developed the Laboratory Efficiencies Initiative (LEI) to help Public Health Laboratories (PHL) achieve long-term sustainability by adopting high-efficiency management practices.
- On December 15th, 2011, CDC and APHL hosted the first joint meeting with representatives from PHLs and CDC subject matter experts (SMEs), to identify strategies to improve PHL informatics capabilities on a national level and develop sustainability around ongoing informatics activities.
- There was universal agreement that PHLs would benefit from development of a self-assessment tool that could be used by laboratory and informatics staff in PHL's to evaluate their current informatics capabilities. A tool that could also help set operational priorities for the fiscal year would be ideal.
- A small working group comprising members from CDC, APHL and Booz Allen Hamilton began developing a framework for this tool, including an informatics capabilities matrix.
- An informal advisory group comprising PHL members and CDC SMEs was formed that reviewed the above matrix and provided feedback which was incorporated.
- The working group further enhanced the matrix by linking the above-mentioned informatics capabilities with the 16 laboratory business processes identified previously by APHL and their partners and thereby creating 19 Capability Areas (CA). These capability areas and associated capability statements (CS) capture all informatics capabilities desirable at an enterprise wide level within a PHL and were approved by the advisory group.
- CDC and APHL held a second consultation meeting on May 8th and 9th, 2012, in Atlanta, with the objective of reviewing the CA's and statements, obtaining recommendations on appropriate indicators and scoring methods and engaging attendees in developing a plan for tool completion and roll out.

Participants: May 8-9, 2012:

	State and APHL Representatives		***CDC Representatives***
X	Wanda("Willie") Andrews (Virginia)	X	Steve Soroka (CDC/OID/NCEZID)
X	Garrett Peterson (Wisconsin)	X	Jennifer McGehee (CDC/OSELS)
X	Jack Krueger (Maine-retired)	X	James Tolson (CDC/OID/NCEZID)
X	Mark Conde (Emory University)		
X	Michelle Meigs (APHL)		***CDC/OSELS/LSPPPO***
X	Patina Zarcone (APHL)	X	John C. Ridderhof (CDC/OSELS/LSPPPO)
X	Cassandra Hadley (APHL)	X	Simon Adebola (CDC/OSELS/LSPPPO)
X	Darius Shirazi (Iowa)	X	Emory Meeks (CDC/OSELS/LSPPPO)
X	Paul Duffy (California-retired)		
			Booz Allen Hamilton
X	Jon Lipsky (J Michael Consulting)		

LABORATORY EFFICIENCY INITIATIVE (LEI) INFORMATICS
CDC –APHL SECOND CONSULTATION
MEETING SUMMARY

X	Reshma Kakkar (The St. John Group)	**X**	Kakali Bandyopadhyay (CDC/OSELS/LSPPPO)
		X	Tony Barbagallo
		X	Lauren Pittinger

Capability Areas:

The CA's reviewed during the May meeting are:

CA #1. Laboratory Test Processing (Clinical and Environmental)
CA #2. Test Scheduling
CA #3. Proactive Specimen/Sample Collection (Prescheduled Tests)
CA #4. Specimen and Sample Tracking/Chain of Custody
CA #5. Media, Reagent, Stains, Controls, etc. Manufacturing
CA #6. Inventory Control Including Kits & Forms Management
CA #7. General Laboratory Reporting
CA #8. Statistical Analysis and Surveillance
CA #9. Billing for Laboratory Services
CA #10. Contract and Grant Management
CA #11. Training, Education and Resource Management
CA #12. Lab Certifications/Licensing
CA #13. Customer Concerns/Suggestions
CA #14. Quality Control (QC) and Quality Assurance (QA) Management
CA #15. Laboratory Safety and Accident Investigation
CA #16. Laboratory Mutual Assistance/Disaster Recovery
CA #17 Core IT Services: Hardware and Software
CA #18 Budgeting and Funding
CA #19 Policies and Procedures

Highlights of discussion on CAs:

- Interoperability and data exchange capabilities have been integrated into each capability areas
- CA1 that encompasses a specimen's life cycle will be split into 4 CA's and CA2 will be merged into CA1 resulting in a total of 21 CA's
- Involve laboratorians in policy-making process may help improve efficiency
- Emphasize appropriate stakeholder participation in policy making

The Self- Assessment Tool:
The tool is intended to be completed by PHL leadership, PHL informatics leadership and Lab Subject Matter Experts (SMEs).

Purpose of the tool:

The consultation determined that data gathered from the self-assessment could be used by a PHL to

- Examine and increase efficiency of their processes
- Develop plans for seeking funding
- Develop business cases for internal use
- Create a global perspective of their lab's capacity
- Identify key gaps
- Develop strategic plans for performance improvement
- Help scientists understand how informatics helps improve overall laboratory processes
- Advocate for sustaining existing capabilities and support requests for investment

Tool Design:

There was consensus that the tool will cover all major components of laboratory informatics. These will be represented as a matrix and include:

- Capability Areas (CA) with a description and suggested participants for completing the particular CA
- Capability statements (CS) specific to each CA
- Semi-quantitative gradation based on key performance indicators
- Instructions for tool use
- Glossary for all terms used in the tool and for terms relevant to a CA
- Guidelines for achieving next level of maturity from current state with annotation to best practice documents relevant to the capability statements for the CA
- Links to standards and best practices used in the tool
- Area for comments for each capability statement
- FAQ section:
  - These may grow based on input from the comments section and e-mails sent to the toolkit help-desk.

Scoring Method/Performance Measurement Matrix:

The group raised several points to be considered while developing performance indicators including:

- The type of lab that will use the tool
- A PHL may have geographically dispersed lab sections
- Whether the weight assigned to a capability should be based on priority of the capability
- Whether the same CA should include different gradations based on the type of lab and their priorities, particularly as each state may have a different level of maturity for the same capability
- Use of Yes/No responses for certain capability statements
- Adapting the scale from 5point to 3 point based on the capability statement with a goal of precision
- Appropriate level at which the self assessment is completed i.e. by the lab or by the institution

Highlights of discussion on Format of the Tool:

- Capture requirements to determine most appropriate delivery method
- Visual representation of the data would be useful to the lab (e.g. Harvey ball, Heat Map (color coded)
- Users need to have the ability to save, edit, stop, restart, review previous section

Highlights of discussion on Prioritization:

- Prioritization scheme could focus on the biggest issues labs currently face in terms of informatics capabilities and interoperability.
- CAs 1, 4, 7, 17 and 18 are perceived to be the prioritized CAs.
- Prioritization should address areas most in need of attention with a goal of developing a roadmap towards coordinating efforts with other groups, Onus of determining prioritization needs to lay either with the lab/users of the tool or developers of the tool
- Tool developers should designate certain CSs in specific CAs as priorities.

Immediate Next Steps:

- Advisory group to review the consolidated LEI capabilities matrix updated with input from the 2nd consultation,
- Finalize tool roll out
- Discussions with PHLs and SMEs to identify strategies and policy documents that can be adopted as best practices for non-public health labs.

Future course of action:

- Decision needed on ownership of the tool and of the data collected.
- Means to share the data and agreements in place for the process of sharing.
- Possible evolution of the tool into an informatics survey to be implemented by APHL/CDC or designated owner of the data Precede tool implementation with a pilot that includes states with state-of-the-art informatics capabilities and less proficient states
- Consider integration of tool with ongoing LEI work in other areas

Areas needing further discussion:

- Consideration of laboratories that perform tests for FDA, EPA and other agencies in additional to routine clinical and diagnostic activities
- Is every lab expected to strive to achieve the highest maturity level for each capability
- Estimated time burden for completing self-assessment
- How stakeholders and APHL will use data captured in the tool