NEEPHLND Consortium
A Regional Laboratory Efficiency Initiative

Dr. Christine L. Bean, PhD, MBA, MT(ASCP)
APHL President
NH Public Health Laboratories
NEC Member
History of NEEPHELD

- Began in mid 1970’s around NBS legislation
- Expanded to other functions of the PHL
- Second “E” added in the 1980’s

Activities:
- Regional Emergency Response Plan with EPA
- Multi-state exercises and COOP Planning
- Sharing of information - costing; job descriptions; methods sharing; training; LIMS implementation
- Shared services during emergency events
Consortium Participants

- States: NH, Vt, MA, ME, NY, NJ, RI, Ct
- Locals: NY City
- Federal regional partners: EPA Region I
Test Services Sharing Models

- Environmental Testing
  - Gross Alpha Rad
  - Cyanotoxins
- Clinical Testing
  - Arboviral Testing for Humans
  - HCV NAAT/Typing
<table>
<thead>
<tr>
<th>Test Name</th>
<th>Agent</th>
<th>Test</th>
<th>Method</th>
<th>Sample Type</th>
<th>Volume required</th>
<th>Reagent Source</th>
<th>TAT (received to reported-days)</th>
<th>Frequency of performing the Test (eg. 1X per week off season, 4X/week in season)</th>
<th>2013 Number of specimens received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arbovirus Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enceph. IgG</td>
<td>CE</td>
<td>IgG</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>119</td>
</tr>
<tr>
<td>Enceph. IgM</td>
<td>CE</td>
<td>IgM</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>118</td>
</tr>
<tr>
<td>EEE IgG</td>
<td>EEE</td>
<td>IgG</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>119</td>
</tr>
<tr>
<td>EEE IgM</td>
<td>EEE</td>
<td>IgM</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>118</td>
</tr>
<tr>
<td>WEE IgG</td>
<td>WEE</td>
<td>IgG</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>119</td>
</tr>
<tr>
<td>WEE IgM</td>
<td>WEE</td>
<td>IgM</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>118</td>
</tr>
<tr>
<td>IgG</td>
<td></td>
<td>IgG</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>119</td>
</tr>
<tr>
<td>IgM</td>
<td></td>
<td>IgM</td>
<td>FA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>FDA Approved</td>
<td>7</td>
<td>On request</td>
<td>118</td>
</tr>
<tr>
<td>IgM</td>
<td>WNV</td>
<td>IgM</td>
<td>EIA</td>
<td>Serum/CSF</td>
<td>500ul</td>
<td>CDC</td>
<td></td>
<td></td>
<td>209</td>
</tr>
</tbody>
</table>
1. Site: Connecticut
NEC Training Survey Response:

- All STCs have additional duties in the lab
- 25 different annual trainings required annually
- 7/8 labs develop own training programs and all willing to share them

Next Steps:

- Create a site to post state-developed trainings
- TNA within labs needed to define regional training needs
Issues to study using models

- Legalities of test sharing
- Billing
- IT- ETOR
- Sample transport
- Effect on Providers/SHOs/EPIs/Users of Services
Legal Support for Test Service Sharing

NEEPHLD members are:

• Using the new LEI “Policy Guide” to
  o Review 15 MOUs and contracts that other states have signed to explicitly authorize test service sharing
  o Learn from the solutions that 17 state PHL directors have crafted to address specific legal/policy issues
• Assessing their own states’ existing, relevant laws
• Exploring approaches to addressing any legal issues, e.g., out-of-state lab certification, liability, and payment for out-of-state testing.
LEI Tools put to the test

- Test Services Database
- Informatics Self-Assessment
- Funding/Cost per test analysis
- Resource template
- Communication fact sheets for information sharing
Informatics - ETOR

• Evaluation of current ETOR capabilities
• Barriers to the implementation of ETOR
• Develop multiple solutions to account for varying capabilities among submitting providers
• Develop best long-term solution for establishing ETORs capacity
  • To be used between PHLs
  • To be preferred solution to messaging with hospital submitters
1 Laboratory Test Request and Sample Receiving
2 Test Preparation, LIMS Processing, Test Results Recording and Verification
3 Report Preparation and Distribution
4 Laboratory Test Scheduling
5 Prescheduled Testing
6 Specimen and Sample Tracking/Chain of Custody
7 Media, Reagents, Controls: Manufacturing and Inventory
8 Data Exchange and Interoperability
9 Statistical Analysis and Surveillance
10 Billing for Laboratory Services
11 Contract and Grant Management
12 Training, Education and Resource Management
13 Laboratory Certifications, Accreditations and Licensure
14 Customer Relationship Management
15 Quality Control (QC) and Quality Assurance (QA) Management
16 Laboratory Safety and Accident Investigation
17 Laboratory Mutual Assistance and Disaster Recovery
18 Core IT Services: Hardware, Software and Services
19 Policies and Procedures, Including Budgeting and Funding

Lab: AL
NEEPHLD Cost Accounting

• Adopted cost accounting tool for Influenza testing developed by Booze Allen Hamilton.
• States receiving specimens will do costing first.
• Plan is to cost tests before test sharing, then cost tests after test sharing to see if there is a change in cost per test.
• Will cost out arbovirus, HCV and gross alpha in water.
Evaluation Metrics

Cost measures
- cost per reportable result
- number of tests/FTE

Informatics measures
- % orders received or processed electronically
- % laboratory tests supported by LIMS

Workforce measures
- Number of hours of training for current staff
Issues of Quality and Sustainability

- What are advantages to service sharing?
- Can this be sustained in a public health emergency?

Issues to consider:
- Specimen transport
- Staffing requirements and how to fund
- Impact of loss of capability in state
Contacts for NEEPHLHD Consortium:

Christine Bean NH PHL
clbean@dhhs.state.nh.us
603 271-4657

Jill Taylor Wadsworth Center
jxt07@health.state.ny.us
518 474-3157

Michael Pentella MA PHL
michael.pentella@state.ma.us
617 983-4362