Getting Laboratories to Report: Overcoming Barriers to Electronic Reporting

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Process That Worked for Virginia:

- Initially surveyed a few of the larger laboratories by phone that were already submitting data.
- Determined the maximum time period needed to link lab results to billing in order to provide complete demographics was 10 days.

Process That Worked for Virginia:

- Several laboratories stated that they could do more if we had a state regulation requiring them to send the data.
- They stated that their legal departments were conservative, and wanted them to limit data transfers to only those required by state regulations.

Process That Worked for Virginia:

- Concurrently, Virginia was writing Emergency Regulations for testing children for elevated blood lead levels.
- We took this opportunity to insert the requirement that laboratories that test Virginia children for lead be required to submit electronically to the VDH within 10 days all test results.

Regulations: Laboratory Reporting

12 VAC 5-120-100. Samples submitted to a qualified laboratory.

1. All blood samples submitted to a qualified laboratory for analysis shall be accompanied by a completed laboratory requisition with all of the required data as determined by the Department of Health.
2. All qualified laboratories accepting blood samples for lead analysis under this regulation shall submit all required data to the Board within 10 business days of analysis. The data shall be sent by a secure electronic means that has been approved by the Department of Health.
3. Any laboratory reporting under this section shall be deemed in compliance with the stipulations of Section 32.1-36 of the Code of Virginia and the Board of Health *Regulations for Disease Reporting and Control* regulation 12 VAC 5 90-90.

DEVELOPMENT OF STATEWIDE DATABASE

Regulations for Testing Children for Elevated Blood Lead Levels REQUIRES LABORATORIES TO REPORT ELECTRONICALLY

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DEVELOPED A WEB BASED REPORTING SYSTEM

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SURVEYED LABORATORIES AND DEVELOPED CAPACITY TO IMPORT DATA SUBMITTED ELECTRONICALLY INTO NEDSS CAPATIBLE DATABASE-LEADTRAX

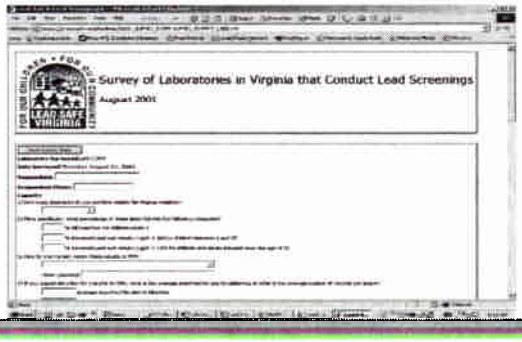
Web-based Reporting System

- LeadTrax was developed by a contractor to merge our 6 STELLAR databases into a statewide database.
- Capacity to import data was developed: ASCII etc.
- Capacity to export data was developed: CDC annual extract, Office of Epidemiology extract, Medicaid extract.

Formal Survey of Laboratories

- Contractor and Lead-Safe Virginia then developed a formal survey to assess the capacity of all laboratories to submit electronically.
- It was determined that almost all were willing and capable.

Example of the Survey



Formal Survey of Laboratories

- LabCorp was capable of using HL7 as were several other laboratories during followed-up discussions by the Epidemiologist.
- Decision was then made to develop this template in order to make the database NEDSS compatible.

Next Step

- We developed the capacity to import data using the Health Level 7 format. This took some time for the contractor to develop.
- The file description is on the CDC Web page.
- Laboratories that were able to submit ASCII files and data on disc were also imported directly.

Health Level 7 (HL7)

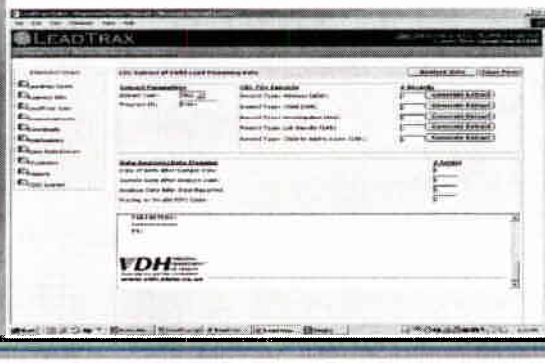
- HL7 is an accredited, nationally-recognized standard for electronic data exchange in healthcare environments.
- HL7 is not a software package, but a set of rules for sending simple text characters in groups that represent patient identifiers, lab information, test results, and other data.

Health Level 7 (HL7)

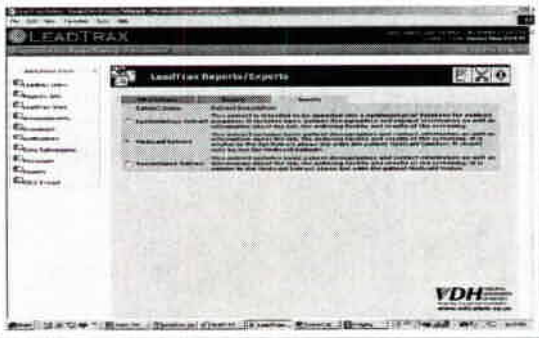
- Many of the laboratories already use this format in other processes such as reporting cancer data, or insurance billing. Ask them.
- HL7 is the format that the National Electronic Disease Surveillance Surveillance System (NEDSS) uses.
- Many laboratories that are just starting to do any electronic reporting are choosing HL7.

Electronic Import

CDC Annual Extract



Other Electronic Extracts



Summary

Electronic reporting using HL7 and a NEDSS compatible database is easier than you may think.