OpenELIS Monthly Community Call

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Mark - Missouri

James - Missouri

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Travis – Iowa

1. Interfacing
    a. Dari working on two programs concurrently – New Born screening and EPA grant. Send electronic results to standard format. Generate XML out of OpenELIS and convert to format. Working with APHL and other albs tp see how to standaridize XMLK across programs – this is long term goal. Right now focusing on EBWR. This is a standard that EPA developed. Did not use HL7 as this is mostly for clinical, not environmental. With XML more flexible because of tags. With environmental, QC data creates complexity in terms of putting these data with the package. The level of QC that can be put in XML varies from simple QC to highly complex. Iowa send QC values. This is 3rd level. 4th level involves sending QC file. This may to may not be viable in the long run. Dari purchased a commercial software that sits between instrument and OpenELIS. A lot of calculations need to happen, not just parsing the file. Need reasonable software that can do it. Most instruments have interface that can analyze the file. Then there is middle broker that parses the file. This is where they use Perkins Elmer. It parses data file, looks at entire run and do computations, where QC is and how it affects the result etc. It also talks to OE to see electronic worksheet and know what was included in the run. This is a generic software for interfacing. Software comes generic and then interfaces can be written into the software. Cost is per instrument per interface. It keeps track of raw file.
    b. Paul S: They do not have access to analyzers as they are geographically remote. Can get flat files that are generated by software dedicated to the analyzer. Maintenance of analyzers is outsourced to a 3rd party. They will not allow any of ITECH's software on

their machine. So this is a constraint. Have set up another PC close to analyzer and on same network. They have written program that checks for updates every 30 seconds. If finds a new file will send to OE. There is a program in OE that will put new file into table in OE, can do some parsing. User can look at results that were received from analyzer and accept or reject. Once this is done, the results are mostly equivalent to someone having entered them. Writing code takes about a day or so. Lab may not use the code for 3 months because that is how often they release code. Now changing to another model that is plug in analyzer. So will be able to send them JAR file that can be dropped into plugin directory and make it work that way. Sometimes analyzer has header info identifying analyzer, with metadata about the run and results are then in a table. Software needs to figure out what column needs to be paid attention to. Track rejected values. Dari asked about any discussions around queuing up a run. Paul sauid not doing this at instrument level and probably no clear path to doing that. But a worksheet is generated for them so this is a batch run. Dari talked about a box that can be plugged into instrument or into network. Will find out name. Don't need middle PC. This is called Dawning box.

c. Missouri has 2 interfaces – GC/Gonorrhea and one was put in production yesterday. Took a long time to get there. Code written either by contract or by them. Instrument sends file to network location and OW picks it up and puts it into system. Abbott interface is moving towards HL7. HIV is going through Rhapsody tool. Goes through database. Dari suggested looking at Dawning box. Shondra send had to put Lantronix as a terminal server. This converts serial input to network. Dawning translates instrument to data that needs to be seen on the other side. Hold up was cost. Middleware solution can be quite costly. Shondra said it's quite hard for security department to approve things. Clinical areas – have not had time to tackle these and bring into OE. Are interested in exploring Environmental and interfaces here. E.g. Chemistry instrument being interfaced to OE. Lablync is the instrument in Iowa.

d. Every time get new instrument have to change code. Rather than doing that decided to write one interface the OE can understand. Should be flexible enough that can push different columns and get data into it. Massaging should be done by something else before it gets in here and file generated. For clinical interfacing would write code for each instrument. This is doable but cost is high. That's why middleware was a better solution. Do it this way prevents from reinventing the wheel.

2. Paul suggested using the website to discuss standards and which are the ones being used for data exchange in PHLs.

3. Discussion on how best to put info on website. Some smaller labs interested in OE and how to download code. Gary will put this as agenda item for next call.

4. Dari gave update on Primate Lab at UC Davis. We did a presentation to them and they are interested in exploring more. They are also interested in interfacing.