ePath: An Arkansas Overview

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Arkansas ePath Overview

Outline

- Overview of System
- Electronic Laboratory Messaging and PHINMS
- Labcorp Route
- Challenges and Future Projects
Pathology Lab Issues

- 95% of cancer cases can be abstracted through pathology labs. *

- There are presently no mechanisms to capture this pathology information for cancer registries.

- ePath is a mechanism for receiving pathology information.

*AIM Software Systems
Arkansas ePath Team

Cancer Registry Program Director : Gigi White
Cancer Registry Systems Programmer : Chris Fisher
Quality Assurance Coordinator : Wanda Rhodes
ELR Project Manager: Jim Files

* Michael Castera initiated the Arkansas ePath project
ePath Workflow

PHIN MESSAGING SYSTEM

Pathology Lab
PHIN-MS

Send queue
(All cases for the state)

Secure/encrypted

Central cancer registry
PHIN-MS

Receive queue
(All cases for the state)

HL7 Mapper Plus

Read messages and extract data elements of interest to the state from each message in order to write to the database as individual data elements

Read state's preference for cancer search terms

Write all messages to the database without searching for cancer terms in the OBX-5 text

Write only the messages that have cancer terms to the database

Write all the messages to the database and mark the ones that have cancer terms

Path Reports database

Central registry database
ePath PHINMS Process

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PHINMS is loosely coupled with the Message Transformation Component. It uses a Transport Queue interface to read and write outgoing and incoming messages. The Transport Queue is implemented as a database table or as a file system directory.
Mapper Plus Process

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Path Reports database

Central registry database
Mapper Plus

Path Reports database

Central registry database
| BatchID | Filename | Lab      | Import Date/Time | Status   | User  | # Reports | # Review | # Consult | # Complete | # Nonreportable | Type       |
|---------|----------|----------|------------------|----------|-------|-----------|----------|-----------|------------|---------------|------------|-----------|
| 67      | LabofPathL7.txt | Lab of Path | 1/30/2009 3:00 PM | Review   | women   | 1         | 0        | 0         | 1          | 0             | HL7 ORU*1  |
| 65      | LabofPath205.txt | Lab of Path | 1/26/2009 2:59 PM | Review   | LBP     | 108       | 0        | 20        | 77         | 11            | HL7 ORU*1  |
| 64      | PathoLab200.txt  | Lab of Path | 1/5/2009 4:00 PM  | Review   | Mitchell | 37        | 24       | 6         | 6           | 1            | HL7 ORU*1  |
| 63      | PathoLab110.txt  | Lab of Path | 1/5/2009 4:00 PM  | Review   | LBP     | 47        | 41       | 0         | 0           | 1            | HL7 ORU*1  |
| 62      | 200911010100.txt | Lab of Path | 1/5/2009 3:30 PM  | Review   | Scudder | 42        | 25       | 6         | 3           | 8            | HL7 ORU*1  |
| 61      | 201501200100.txt | Lab of Path | 1/5/2009 3:30 PM  | Review   | BB      | 37        | 1        | 10        | 23          | 3            | HL7 ORU*1  |
| 60      | TheLabofPath.txt | Lab of Path | 1/5/2009 3:30 PM  | Review   | LBP     | 140       | 2        | 33        | 35          | 10           | HL7 ORU*1  |
| 57      | PathoLab102.txt  | Lab of Path | 1/21/2009 2:49 PM | Review   | sectored | 554       | 9        | 63        | 430         | 45           | HL7 ORU*1  |
| 47      | PathoLabRev.txt  | Lab of Path | 10/3/2008 10:03 AM | Review   | agner   | 35        | 26       | 2         | 5           | 4            | HL7 ORU*1  |
| 45      | PathoServ0102.txt | Lab of Path | 9/3/2008 9:40 AM  | Review   | women    | 37        | 24       | 9         | 3           | 1            | HL7 ORU*1  |
| 44      | PathoServ0200.txt | Lab of Path | 8/12/2008 1:17 PM | Review   | men      | 47        | 40       | 0         | 2           | 5            | HL7 ORU*1  |
| 43      | LabofPath2390.txt | Lab of Path | 7/30/2008 9:15 AM  | Review   | sectored | 124       | 48       | 17        | 7           | 54           | HL7 ORU*1  |
| 42      | AskPathAsscHosp  | DHTI General Hospital | 7/15/2008 3:07 PM | Review   | women    | 56        | 0        | 0         | 0           | 95           | HL7 ORU*1  |
| 41      | PathoServ012.txt  | Lab of Path | 7/3/2008 10:08 AM | Review   | sectored | 56        | 15       | 10        | 3           | 26           | HL7 ORU*1  |
| 40      | PathoServ0200.txt | Lab of Path | 5/13/2008 2:01 PM | Review   | LBP      | 51        | 28       | 7         | 17          | 1            | HL7 ORU*1  |
| 39      | PathoServ0301.txt | Lab of Path | 5/15/2008 3:07 PM | Review   | sectored | 51        | 0        | 5         | 13          | 32           | HL7 ORU*1  |
| 38      | PathoServ0307.txt | Lab of Path | 4/23/2008 3:27 PM | Review   | sectored | 129       | 0        | 6         | 20          | 100          | HL7 ORU*1  |
| 36      | PathoServ0407.txt | Lab of Path | 4/11/2008 2:33 PM | Review   | sectored | 38        | 17       | 4         | 4           | 13           | HL7 ORU*1  |
| 35      | PathoServ0520.txt | Lab of Path | 4/11/2008 12:50 PM | Review   | sectored | 48        | 0        | 10        | 24          | 12           | HL7 ORU*1  |
| 34      | PathoServ0570.txt | Lab of Path | 2/14/2008 1:52 PM | Review   | sectored | 46        | 0        | 2         | 38          | 6            | HL7 ORU*1  |
| 33      | PathoServ0110.txt | Lab of Path | 11/4/2008 8:20 AM | Review   | men      | 153       | 0        | 8         | 16          | 129          | HL7 ORU*1  |
| 32      | PathoServ0170.txt | Lab of Path | 1/2/2008 8:23 AM  | Review   | sectored | 362       | 0        | 2         | 247         | 11           | HL7 ORU*1  |
| 31      | PathoServ0110.txt | Lab of Path | 1/14/2018 11:00 AM | Review   | women    | 135       | 0        | 25        | 17          | 97           | HL7 ORU*1  |
| 30      | PathoServ0200.txt | Lab of Path | 1/22/2008 7:30 AM | Review   | women    | 42        | 0        | 4         | 15          | 23           | HL7 ORU*1  |
| 29      | PathoServ0307.txt | Lab of Path | 10/20/2007 7:07 AM | Review   | women    | 47        | 0        | 1         | 15          | 31           | HL7 ORU*1  |
| 28      | PathoServ0330.txt | Lab of Path | 12/6/2007 2:30 PM | Review   | middle   | 48        | 0        | 7         | 7           | 34           | HL7 ORU*1  |
| 27      | PathoServ0710.txt | Lab of Path | 12/8/2007 2:30 PM | Review   | men      | 57        | 0        | 19        | 57          | 2            | HL7 ORU*1  |
| 26      | PathoServ0100.txt | Lab of Path | 10/7/2007 10:30 AM | Review   | women    | 45        | 0        | 8         | 57          | 3            | HL7 ORU*1  |
| 25      | PathoServ0120.txt | Lab of Path | 10/7/2007 10:00 AM | Review   | women    | 45        | 0        | 8         | 57          | 3            | HL7 ORU*1  |
| 24      | PathoServ0200.txt | Lab of Path | 9/18/2007 2:52 PM | Review   | sectored | 38        | 1        | 10        | 31          | 9            | HL7 ORU*1  |
# Resources for Collecting Data

<table>
<thead>
<tr>
<th>Process</th>
<th>Manual</th>
<th>E-Path</th>
<th>Savings</th>
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<tbody>
<tr>
<td>Number of hours to review and sort</td>
<td>808</td>
<td>707</td>
<td>$10,100</td>
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<tr>
<td>Number of hours to enter 5,200 cases into registry database</td>
<td>260</td>
<td>0</td>
<td>$6,500</td>
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<tr>
<td>Number of hours to enter 2,908 Consult cases into registry database</td>
<td>145</td>
<td>0</td>
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<tr>
<td>Copying pathology reports $.10/report + Paper ($2.55/ream)</td>
<td>Yes</td>
<td>No</td>
<td>$1,274</td>
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<tr>
<td>TOTAL Savings</td>
<td></td>
<td></td>
<td>$21,499</td>
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</tbody>
</table>

* NPCR-AERRO: Developing a Cancer Surveillance Informatics Structure in the New E-Health Environment, April 2009*
Arkansas ePath Challenges

• Initial setup cost and time.
• Working interdepartmentally- Cancer Registry, Epidemiology, and IT.
• Implementing a new system.

Future Projects
• Setup new labs.