

Project: Feasibility of Transmitting Newborn Screening Test Results to Submitters Through a Health Information Exchange Hub operated by Washington's Health Care Authority

Project Description:

Feedback gathered from our L-SIP assessment identified turn-around time for testing reports as a gap. In our newborn screening program there are gaps in both turnaround time and accuracy of results because currently we print paper copies of all results, fold them, then mail them to the submitter. This causes unnecessary delay due to processing and mailing time. Upon receipt, an ever increasing number of submitters re-key the information into their electronic medical record system. This poses unnecessary risk of inaccuracy due to transcription errors.

We proposed to contract with our newborn screening data systems provider, Neometrics Inc. to develop and install an electronic data transfer module that will automatically generate newborn screening test results to be imported into a Health Information Exchange (HIE) Hub. The HIE Hub is being developed and operated through our state's Health Care Authority and was to be available within the next two months. After the data transfer module was installed we ran trial imports to the HIE hub and partnered with a local hospital to coordinate the data to their electronic health records.

The project was exceptionally successful in meeting our goals to take advantage of the developing environment to facilitate electronic reporting of laboratory results to health care facilities.

Measurable objectives

- Development and installation of Neometrics' electronic data transfer module following national standards.
 - *This objective was successfully achieved.*
- Extraction and transmission of (trial) specimen results to the HIE hub.
 - *This objective was successfully achieved*

Timeline with expected milestones

- April 15, 2011 - Negotiated agreement with Neometrics for module development, installation and testing.
 - *This timeline and milestone was successfully met*
- May 15, 2011 – electronic data transfer module developed and installed. Partner hospitals identified.
 - *This timeline and milestone was successfully met*
- June 30, 2011 – Trial specimen results successfully extracted and messages sent to HIE hub and working with partner hospitals to adapt input to their Electronic Health Record system .
 - *This timeline and milestone was successfully met.*

- After the funding period, we are committed to continue this critical ground work to ultimately achieve successful use of the HIE hub to transmit newborn screening test results to health care providers.
 - *We are continuing work with our partner hospitals and the state hub to establish routine transmittal of screening results. After that we will expand outreach to other facilities .*

APHL Specific Feedback Request:

- a. What had prevented this project from taking place earlier?
The major obstacle was uncertainty of direction and lack of consistent format for implementing electronic health records (EHR) in medical facilities. Recent federal and state efforts in these areas provided a serendipitous opportunity for us to take advantage of these changes thanks to the funding that also became available from the PHL.
- b. What examples or discussions during the assessment or follow-up identified the gap?
Hospitals had clearly expressed their keen interest in electronic transmission, however, in evaluating the feasibility, we noted that each had different EHR systems with different requirements and there was no central system for distribution. Until consistent and uniform models were on the horizon, investment in this area would have been unsuccessful.
- c. What is the impact that completing this project has or will have on your laboratory system?
This investment has allowed us to take advantage of the emerging situation and get in on the ground floor of electronic communications between the various elements of the health care system. This will result in improved timeliness and accuracy and reduced long term costs for reporting newborn screening result. The other elements of the laboratory will gain significant benefit to expedite further expansion of electronic result reporting for the entire system. The project further paves the way for two way communications that will allow health care facilities to provide the laboratories with important information such as reportable diseases.
- d. Please identify other gaps that have not yet been addressed. What are the barriers to carrying out improvement projects that would address or correct the issue?
We need to continue to develop and refine the system and models for implementation that will assist other facilities to take advantage of electronic result reporting. Many of the more difficult barriers are unique to the facilities themselves and their capacity to take this on to fit their circumstances. As we work with more facilities we will be in an increasingly strong position to help meet these challenges. As with any system development that cuts across many different organizations with many different players with different roles, maintaining effective communication and understanding will be a significant challenge.