

State of Hawai'i
Health Information Exchange Plan
November 18, 2010
Addendum



Hawai'i Health Information Exchange (HIE)

Addendum to Hawai'i HIE State Operational Plan

Electronic Laboratory Results Delivery

Clinical Laboratories of Hawai'i (CLH) and Diagnostic Laboratory Services (DLS) make up 70% of Hawai'i's laboratory market with the remaining 30% comprise of: Castle Medical Center, Kaiser Permanente, the State of Hawai'i's Department of Health and specialty labs. Initially, Hawai'i HIE will develop a single port of entry for laboratory interfacing with the major laboratories, Clinical Laboratory of Hawai'i and Diagnostic Laboratory Services. The remaining other laboratory entities will be encouraged to participate in the Hawai'i HIE as more health care providers implement EHRs and as the market demands increase lab data to be exchanged electronically. Hawai'i HIE will also facilitate a unified technical voice and be the provider of information for the national guidelines to affected stakeholders, which will lead to communication efficacies between local and national labs. Part of the national guidelines is to promote collaboration and standardization with other state's HIEs in developing specification requirements for technical and operational categories such as electronic master patient index (e-MPI or MPI), alignment to ONC's recent Meaningful Use (MU) requirements, and claim reconciliation auditing.

An example of this collaboration is with the 2011 Hawai'i American Society for Clinical Laboratory Science and Clinical Laboratory Management Association (ASCLS/CLMA) Annual Meeting & Exhibits scheduled for May 9, 2011. This three day meeting will host 300 laboratory professionals (Pathologists, Medical Technologists, Medical Laboratory Technicians, Lab Assistants and Phlebotomists) and will schedule 30 workshops. Hawai'i HIE has been invited to present on the theme, "The Hawai'i Health Information Exchange: The Laboratory's Role." Hawai'i HIE will also participate in the State Health Information Exchange Cooperative Agreement Program Communities of Practice (CoP) to learn, participate and share in the evolution of topics, such as coding standardization. Hawai'i HIE will recommend that the key laboratory stakeholders participate in specific industry related discussions for their expertise and knowledge. It is also anticipated that when workgroups for NHIN CONNECT laboratory standards begin to coagulate, Hawai'i lab stakeholders will have a vested interest to participate in the spring of 2011 session.

The three major hospital systems in the state, The Queens Medical Center, Hawai'i Pacific Health, and Kaiser Permanente all have Epic Inpatient EMR as their clinical information systems. It is relevant to note that Epic has incorporated ELINCS specifications into the Laboratory Module for their EMR application. Epic's adoption of the ELINCS standards has the potential to standardize Hawai'i hospital systems' laboratory facilities to a national coding standard. These advancements towards LOINC standardization by Hawaii's large hospital systems, along with Hawai'i HIE lab stakeholders will drive the other laboratories to comply with LOINC standard by the 2013 milestone.

The strategy to include the remaining 30% of the lab market into the Hawai'i HIE port will be (A) to work with the remaining hospitals that have internal lab facilities, (B) developing agreements with other programs – such as the Hawai'i Pacific Regional Extension Center (HPREC), and (C) market demand from the corresponding primary care physicians.

- A. Kaiser Permanente, Kuakini Medical Center and Castle Medical Center account for 15% of the labs tests processed in Hawai'i. Since these medical hospitals process their Order Entry (OE) of lab tests within their existing EHR systems, the exchange of lab results from these facilities by unaffiliated organizations could be as soon as formal agreements are finalized. As mentioned

above, Kaiser Permanente's Epic EMR System could adopt the ELINCS coding specification by upgrading their current Epic EMR application. The requirements for Hawai'i HIE lab results is expected to be completed by the summer of 2011 with standardization to LOINC by the required date of 2013-2014.

- B. The HPREC program is currently going through their pre-qualified EHR vendor selection process (November 2010) which requires EHR applications to support OE and lab results data interoperability, with emphasis on the lab result component to meet stage 1 Meaningful Use requirements. Qualified EHR applications are required to interface with the Hawai'i HIE to minimize the building of new interfaces for each EHR application. Lab OE should include pre-authorization codes for claim transactions (eligibility, ABN, diagnosis in ICD9/ICD10, etc) which will enable efficient and timely processing of lab reimbursement. It is important to note that some provider EHR systems are not interfaced/integrated with their Practice Management Systems (PMS) and the office workflow usually does not support capturing meaningful billing data (especially the latest ICD9) via a lab OE interface. HPREC has a requirement that the PMS systems are interfaced to the EHR.
- C. The remaining 10% of boutique labs such as, Analytic Lab Systems, Aloha Laboratories, Cardio Pulmonary Diagnostic Services and Physicians Lab Corp (Oncology, Cardiology, and general lab testing) will be highly encouraged to participate in the Hawai'i HIE as the demand for OE by the providers, particularly through the HPREC program and the Beacon Community Consortium (HCBCC) program begin to gain momentum. The EHR vendors implementing their systems into the independent provider practice will be required to interface to several labs in order for the physicians to meet MU. While the two largest labs are positioned meet these providers' needs, the smaller labs, as a result of increased EHR implementation and increased provider demand to achieve MU, will need to adopt LOINC standards by the providers' EHR go-live and definitely by 2013 milestone. So the Hawai'i HIE will conduct an out-reach effort to these boutique labs in January 2011 in preparation for the Hawai'i American Society for Clinical Laboratory Science and Clinical Laboratory Management Association (ASCLS/CLMA) Annual Meeting scheduled for May 9, 2011.

The remaining 5% of labs procedures in the State is conducted by the Hawai'i Department of Health (DoH) which represented on the State Coordinating Committee for Health IT that oversees the State HIE Program. DoH has various programs that are already internally networked to monitor public health concerns as tuberculosis cases (Fall 2010 a student was diagnosed with TB), dengue fever observation, and bio-surveillance. Since Hawai'i is a Pacific gateway to Asia and the South Pacific, tourist, workers, and immigrants traveling to Hawai'i occasionally bringing with them contagious and communicable diseases that need constant public health monitoring.

The State HIE Plan includes the development of data-set standards for electronic lab structure by the summer of 2011 in collaboration with the NHIN CONNECT Standards, and analyzing standards from ELINCS and other lab data sets. The laboratories will benefit from a single port of entry thereby minimizing the number of interface development that would otherwise occur through fragmented EHR systems. A lab single port of entry also advances providers' achievability to reach future OE Meaningful Use benchmarks.

The Chief Information Officers of both labs are voting members of the Hawai'i HIE board and actively support the HIE initiatives. Moving forward with their support, Hawai'i HIE will be the facilitator in

defining the next steps in laboratory exchange bringing together other key stakeholders and sharing of implementation efforts to other HIEs.

	State HIE Laboratory Timeline
Winter 2010	<p>Participate in the CoP working groups and assign a stakeholder specialist for technical contributions.</p> <p>Expand laboratory membership working committees to include the boutique laboratories.</p> <p>Review the lab components within the RFI responses and begin to develop the RFP lab specifications.</p>
Spring 2011	<p>Finalize the lab components for the RFP which will flow into the Scope of Work for the selected HIE vendor.</p> <p>Continue to participate in the Lab CoP with a special interest in creating a scalability path for LOINC standardization; beginning with quantifying the most commonly used laboratory codes and growing the set list.</p> <p>Prepare and collaborate with all the laboratories within the state for the presentation at the ASCLS/CLMA Annual Meeting & Exhibits on May 9, 2011.</p> <p>Ensure proper testing of 1st stage lab connectivity with participating labs, hospitals, primary care providers, Federally Qualified Health Centers and Critical Access Hospitals.</p>
Summer 2011	<p>Refine and launch the Hawai'i HIE system and monitor growing pains.</p> <p>Continually monitor the initial set of lab standard codes. Make revisions in the standardization process and involve the other labs.</p> <p>Develop Data Sharing agreements with other lab-supported hospitals: Kaiser, Kuakini, and Castle and public hospitals.</p> <p>Evaluate growth patterns in the HPREC program and reach-out/educate the non-participating labs.</p>
Fall 2011	<p>Prepare for the LOINC mandate for 2012. Discussions with CLMA for the possibility of introducing legislation to have LOINC standards becoming a requirement for state lab certification.</p> <p>Work with the HIE and EHR vendors to bring physicians to lab OE to reach MU goals for 2012.</p>
Winter 2011	<p>Work with the State Pharmacy Task Force to determine next legislative steps.</p>
Spring 2012	<p>Implement stage two Meaningful Use lab requirements. And development of Secured Messaging</p>

Electronic Prescribing

As mentioned in the Hawai'i HIE Strategic Plan's Environmental Scan, it is anticipated that CVS (dba: Long's Drugs) and Walgreens will soon represent approximately 70 % of the Hawai'i retail prescription market. Since Walgreens arrival into the Hawai'i market, both entities have made significant investments in their prescription processing and recordkeeping systems, which are currently accepting and processing e-prescriptions, thereby providing additional incentives for EHR vendors and adopters to make greater use of this capability.

Hawai'i HIE will be collaborating with these two main retail chains and other pharmacies, such as Wal-Mart, Target, Costco, Times Pharmacy, and KTA (Hawai'i Island), through the Hawai'i Pharmacist Association in the spring 2011 to develop the inclusion of prescription drug information into the Hawai'i HIE. Hawai'i HIE will introduce a collaborative effort with the State Department of Health and other public organizations to implement a feasibility study which would include: a list of all licensed pharmacies via the Board of Pharmacy, identify those pharmacies that most likely are unable to receive prescriptions electronically, identify the reasons for their delay to receive prescriptions electronically, and assist those pharmacies to the best extent possible, in implementing e-prescribing systems. Act 125 for the Hawai'i statute has the Hawai'i HIE as a member on the Hawai'i Pharmacy Task Force. This Task Force will develop a feasibility study on the efficacy of requiring every pharmacy and remote dispensing pharmacy in the State to do e-prescribing.

Medication Management components that meet the Meaningful Use requirements are being incorporated into the Hawai'i HIE Request for Proposal. The Hawai'i is working with other HIE organizations across the nation to develop pharmacy specifications. As part of Hawai'i HIE's partnership with the Hawai'i County Beacon Community Consortium (HCBCC), University of Hawai'i - Hilo College of Pharmacy, a clinical needs assessment will be conducted to define boutique pharmacies' e-prescribing barriers to implementing a secured information portal, and how both initiatives can support seamless e-prescribing services throughout the State. Specific e-prescription discussions will continue in December 2010 at the ONC All Grantee's meeting.

By collaborating with the Hawai'i County Beacon Community Consortium (HCBCC), the Hawai'i HIE will identify funding opportunities to address barriers, such as the costly Surescripts subscription fees. Connectivity to Surescripts is not an issue for e-prescribing in the State of Hawai'i. The barrier for e-prescribing is the costly subscription fees associated with the electronic prescription service. All community pharmacies in the State of Hawai'i utilize an Automated Data Processing System (ADPS) to process and record their prescriptions, adjudicate prescription claims electronically, and transmit required data to government regulatory agencies such as the State of Hawai'i Department of Public Safety, Narcotics Enforcement Division. Many of these various types of ADPS are also able to receive prescriptions electronically. In order for these ADPS to receive prescriptions electronically from physicians, the pharmacy's ADPS must be registered with Surescripts.

The low adoption of e-prescribing is supported by the low adoption of EHRs in the provider community. The HPREC has targeted assisting approximately 850 primary care providers in Hawai'i towards their goals of reaching Meaningful Use, of which an estimated 40 % do not have an EHR. The HPREC

recruitment plan has the following provider targets: 100 providers signed up to participate to reach MU by spring 2011, 200 by summer of 2011, 350 by the fall, and the balance in winter 2011-spring 2012. As of 2009, Surescripts estimates that 20-30 percent of community pharmacies in Hawai'i have not had their ADPS registered and are unable to receive prescriptions conveyed electronically. The feasibility process of identifying the 20-30 percent could be conducted by the existing State Pharmacy Task Force (Act 125), previously mentioned. The Task Force which includes some of the boutique pharmacies, could recommend individual pharmacists to immediately serve as community members on the Hawai'i HIE committees. This action will take place in the spring of 2011.

Ultimately, a sound business model for pharmacies to connect to the Hawai'i HIE will be the driving factor for pharmacies to make the jump to e-prescribing. Similarly with the laboratory model, as physicians strive to meet the MU guidelines in the Spring/Summer of 2011, they will be encouraged to send prescriptions electronically to pharmacies through their EHRs. Those pharmacies not capable of receiving electronic prescription orders will be adversely affected by the physician's need to conduct electronic ordering and may not be considered to fill the drug prescription. We are expecting the pharmacies to enroll into the Surescripts subscription by 2011 in incremental stages; five percent in the summer, ten percent in the fall, and the remaining five percent in the winter.

Of note: The Hawai'i HIE has determined that controlled substances prescription are not able to be conveyed electronically and will encourage and work with the State of Hawai'i Department of Public Safety, Narcotics Enforcement Division to revise HRS 329 Uniform Controlled Substances Act and the corresponding rules and regulations to allow pharmacies to accept electronic prescriptions for controlled substances within the requirements established by the Drug Enforcement Agency.

Hawai'i HIE will support this wave of change in the pharmacy industry by supporting the pharmacies that don't accept electronic orders, and by working with the HIE vendor, Surescripts representative, and EHR vendors which utilized education outreach materials. The HIE vendor's Scope of Work will require the HIE software application to interface between Surescripts and the qualified EHR vendors. The interface could be a standard list of pharmacy OE codes or developing drug file codes (based on the NDC) as formularies continually become modified. The qualified EHR vendors will allow the provider's clinical staff to conduct minimal workflow modification as they connect to the electronic prescription ordering system. In addition, other medication companies have expressed interest in allocating resources to provide assistance to this effort, share best practices and lessons learned from across their direct national network.

Hawai'i HIE will also participate in national best data practices to collaborate with pharmacy organizations, private and public, to create a HIE Drug Table that can synchronize to each EHR system to transmit drug information through Hawai'i HIE, thereby notifying the pharmacist of a drug order, dosage, drug-drug interaction alert, allergy alert, and refill notifications. For billing, a national standard drug table will be reconciled with the providers' PMS, requiring EHR vendors to update, or align to this table. Hawai'i HIE will also participate in statewide and national reporting requirements to identify specialized drugs and quantities related to statewide health issues, such as hypertension (high blood pressure), oncology, and epidemiology reports, which can assist public health or research studies regarding Hawai'i's high volume public health concerns. Currently, Hawai'i laboratories are passing HL7 messages to the Department of Health and similar types of pharmacy reports can assist in these types of research activities in the 2012 time frame.

	State HIE e-Prescription Timeline
Winter 2010	<p>Participate in Hawai'i Pharmacy Task Force meetings to identify pharmacies not participating in Surescripts e-prescription service.</p> <p>Participate in ONC all Grantee's meeting to collaborate with the Pacific island grantees on e-prescribing efforts with the HIE, the HPREC and the Hawai'i County Beacon Community programs.</p> <p>Review of the RFI on the e-prescription component and begin development of the RFP.</p>
Spring 2011	<p>Finalize the e-prescription components for the RFP which will flow into the Scope of Work for the selected HIE vendor.</p> <p>Continue to participate in the ONC CoPs with special interest in creating the scalability path for drug formulary standardization; beginning with quantifying the most commonly used drug codes and growing the set list.</p> <p>Once the non-participating e-prescription pharmacies are identified, implement an outreach effort to determine reasons for not participation. Encourage pharmacies to adopt to e-prescribing by illustrating the business case and the adoption rate for the HPREC.</p> <p>Ensure proper testing of 1st stage prescribing connectivity with participating pharmacies, hospitals, primary care providers, Federally Qualified Health Centers and Critical Access Hospitals.</p>
Summer 2011	<p>Refine and launch the HIE system and monitor growing pains.</p> <p>Continually monitor drug formulary codes. Make revisions in the standardization process and involve the other participating pharmacies.</p> <p>Work with Kaiser, Kuakini, and Castle hospitals on developing Data Sharing agreements.</p> <p>Expand outreach efforts for the last mile implementers in the HPREC program and continue to reach-out/educate the non-participating pharmacies.</p>
Fall 2011	<p>Prepare for e-prescribing mandates for 2012. Begin discussions with Hawai'i Pharmacy Task Force for the possibility of introducing legislation to have controlled substances become incorporated into e-prescribing.</p> <p>Work with the HPREC and EHR vendors to bring physicians to reach MU e-prescription goals for 2012.</p>
Winter 2011	<p>Work with the State Pharmacy Task Force to determine next legislative steps.</p>
Spring 2012	<p>Implement stage two Meaningful Use e-prescribing requirements.</p>

Collaboration

With the assistance of ONC, the Pacific islands of Hawai'i, American Samoa, Guam and Commonwealth of the Northern Mariana Islands (CNMI) HIEs, along with the University of Hawai'i-Telecommunications Information Policy Group (TIPG), were involved in a hemispheric conference call that brought the stakeholders to a clearer understanding of regional HIE needs and potential collaboration efforts. As mentioned in the electronic pharmacy section, Hawai'i HIE and the Hawai'i County Beacon Community Consortium (HCBCC) program, will be collaborating on outreach efforts per the HPREC program to assist primary care physicians to implement EHR systems in the Pacific islands. This effort is kicking off on November 16, 2010. The EHR systems and the HPREC program offer tools for physicians to reach Meaningful Use requirements for Medicare and Medicaid reimbursement, which is only one side of the electronic health information coin. The other side is the electronic health care sharing and the actual exchange. Program tools that are to be developed by Hawai'i County Beacon Community Consortium (HCBCC), Hawai'i HIE, Hawai'i Department of Health, and the HPREC will be shared with each other grantees in the Pacific and elsewhere. Our collaborative efforts are already being activated as Hawai'i HIE and Guam eHealth Collaborative (GeHC) have distributed state HIE plans with one another. Outreach for the HPREC program in Guam has been identified as an issue due to contracting engagement issues and will be addressed by the winter of 2010.

This proactive sharing of information will continue and will strengthen as our collective programs mature. A secured, shared website site will be provided in which each designated grantee will have access privileges. Information such as the Request for Information for a hybrid HIE technical approach, lab data standards, legal policies and NHIN updates, could be shared, once finalized, so that duplicate efforts can be avoided, standard practices can be pooled, and resources can be allocated for optimal use. Monthly conference calls are being established and will be formalized at the ONC All Grantees Meeting in December 2010

See Act 125: http://www.capitol.hawaii.gov/session2010/bills/GM583_.pdf