

# **Developing California's Health IT Infrastructure and the Potential to Improve Patient Care**

*An informational hearing of the  
Senate Committee on Health*

**State Capitol, Room 4203**

**January 6, 2010**

**1:30 – 4:00 pm**

## **Background Paper**

The technology to create, transmit, store and manage individual and population health data is rapidly advancing, and the potential for *health information technology (HIT)* to improve health care safety, cost and quality is now nationally recognized, as both governments and the private sector confront spiraling health care costs and inefficiencies in delivering care.

It is nationally recognized that HIT has the potential to:

- Improve the delivery of care by allowing authorized providers to access critical health information in efforts to improve health care decision-making, cut waste and eliminate the need to repeat medical tests, and save lives by reducing medical errors;
- Improve the coordination of care, particularly for the chronically ill, by increased sharing of electronic health information among authorized providers, thereby elevating the standard of care for everyone;
- Provide individuals with electronic access to their own health and wellness information, thereby engaging them in opportunities for improving their health and well-being; and,
- Improve the health of communities through the use of aggregated health data for research, public health, emergency preparedness and quality improvement efforts.

To fully realize the benefits of HIT requires a pervasive underlying infrastructure that supports the use of patient-focused electronic health information. This infrastructure must go beyond the limitations of HIT systems used by individual providers, health plans or even delivery systems. It requires wide-scale systemic, state and nationwide infrastructure that incorporates protections for patient privacy and confidentiality.

The building blocks for this infrastructure include *electronic medical records (EMRs)* used by providers to manage patient information, *personal health records (PHRs)* for individual access of their own records, and *health information exchange (HIE)* to facilitate the electronic exchange of EMRs and PHRs.

HIE is the capability to electronically move health information among disparate health care information systems while maintaining the meaning of the information being exchanged. In many instances, HIE is used to describe both the process of health information exchange and the entity overseeing and governing the exchange. The goal of HIE is to facilitate access to, and retrieval of, clinical data to provide safer, more timely, efficient, effective, equitable, patient-centered care.

### **American Recovery and Reinvestment Act of 2009**

Last January, President Barack Obama challenged states and health care providers to computerize the nation's health records. To assist states in their efforts, Congress passed the American Recovery and Reinvestment Act (ARRA) in February 2009, which includes roughly \$41 billion for national HIT investments over the next four years. Within ARRA is the Health Information Technology for Economic and Clinical Health (HITECH) Act, which seeks to improve patient care and make it patient-centric through the creation of a secure, interoperable nationwide health information network.

The majority of these funds (\$34 billion) are incentive payments that will go to Medicaid and Medicare providers who are able to demonstrate "meaningful use" of HIT. In addition, ARRA provides \$2 billion for HIT promotion, including \$564 million in planning and implementation grants for HIE. These funds can be used, at the discretion of the federal Secretary of Health and Human Service's discretion to fund a number of initiatives, including grants to states to develop HIEs, HIT workforce training grants, and grants to states to develop loan funds, to name a few.

These federal actions have served as a catalyst for California and the rest of the nation to build HIT infrastructure that will allow pervasive sharing of electronic health information. In the past year, under the leadership of the California Health and Human Services Agency (CHHSA), the state has developed a health information technology and exchange strategic plan aimed towards maximizing the opportunities provided under HITECH as part of a more comprehensive vision of the state's IT infrastructure and health initiatives.

### **California's Allotment of ARRA Funds**

California is expected to receive roughly \$4 billion of the available ARRA HIT stimulus funds. To address how the state intends to implement ARRA HIT provisions and utilize available federal funding, the state has developed an HIT and HIE strategic plan based on the following nine fundamental, interlocking elements, which align with key HIT provisions in ARRA:

1. ***Health Information Exchange:*** To enable the safe, secure electronic delivery and access of health information to the various stakeholders who need it to make informed decisions.
2. ***Regional Extension Centers:*** To provide technical assistance and support to providers and healthcare institutions.

3. **Medi-Cal Meaningful Use Incentive Program:** To provide incentives to Medi-Cal providers to implement EMRs.
4. **EMR Capital Loan Fund:** To provide financial assistance to providers to purchase EMRs.
5. **Workforce Training & Development:** To prepare the workforce for the upcoming acceleration of HIT adoption.
6. **Research & New Technology:** To support the development and transfer of new technology and processes that facilitates meaningful EMR adoption and HIE.
7. **Broadband & eHealth Expansion:** To provide reliable, secure broadband networks, connecting providers, institutions and patients to critical services.
8. **Privacy & Security:** To ensure safe, secure and efficient exchange and access of personal health information to authorized individuals and institutions.
9. **Public Health:** To strengthen, integrate and align public health and health care service infrastructure.

The majority of the federal HIT stimulus funds are targeted to three key ARRA provisions which must work in concert to achieve the goals outlined by the President and Congress, including:

1. **Incentive Payments to Medicare and Medicaid physicians and hospitals for implementing and using EMRs.** California providers could receive upwards of \$3.4 billion in direct incentive payments. Providers are eligible for:
  - Up to \$44,000 per Medicare physician over 4 years, beginning October 2010. California's Medicare providers are estimated to draw down \$2 billion in ARRA funds.
  - Up to \$64,000 per Medi-Cal physician over 4 years. California's Medi-Cal providers are estimated to draw down \$1.4 billion in ARRA funds.
  - Between \$2 to \$8 million per hospital depending on size over 4 years. Hospital providers are ineligible for Medicare or Medi-Cal incentives.

A health care provider (eligible professional or hospital) must be a meaningful user of an EMR to qualify for the incentive payments. "Meaningful use" is generally defined in ARRA, and includes requirements for providers to:

- Use nationally certified EMR technology in a meaningful manner which includes the use of electronic prescribing;
- Demonstrate that the EMR is connected in a manner that provides for the electronic exchange of health information to improve quality of care, such as promoting care coordination; and,
- Use EMR to submit clinical quality measures and other such measures to Centers for Medicare and Medicaid Services (CMS) in a manner and form specified by the federal Secretary of Health and Human Services.

The Medicare and Medicaid programs will make these payments directly to providers. Medicare providers must demonstrate meaningful use before they can receive any Medicare incentive payments. By 2015, Medicare providers that are not meaningful

EMR users will have their Medicare reimbursement rate decreased by one percent per year up to a potential maximum penalty of five percent. Recipients of Medicaid incentives will have one year to achieve meaningful use after receiving the first incentive payment. There are no federal penalties for failure to adopt EMRs for Medicaid providers.

The California Department of Health Care Services is in the process of establishing the Medi-Cal Meaningful Use Incentive Program (Medi-Cal is California's Medicaid Program). The department is currently conducting a provider landscape assessment to determine how many and which providers would be eligible for the incentive program. It will also develop a strategic plan that includes:

- Specific recommendations for what state policies and procedures need to be changed;
- How the department intends to implement the incentive program, including specific performance goals and metrics; and,
- Developing a five-year plan identifying "meaningful use" criteria for EMR adoption.

2. **State Health Information Exchange (HIE) Cooperative Grants.** Grant funds are available to states to develop state and local/regional HIEs, which is intended to ultimately connect to a national health information network. These funds are to create an exchange mechanism within California that allows health information to move across disparate health care systems. CHHSA has submitted an application on behalf of the state and is estimated to receive \$38.8 million early 2010.

CHHSA convened a monthly HIE Advisory Board to guide the state's decision-making process, and to recommend HIE and health outcome priorities, including appropriate governance, technical, and sustainability models. In addition, between April 2009 and August 2009, CHHSA guided a strategic planning effort that involved input from more than 600 stakeholders and resulted in development of a state HIE strategic plan. Based on input received, a public-private partnership governance model was chosen.

#### ***Developing a Plan for California's Health Information Exchange***

On August 20, 2009, the federal Office of the National Coordinator for Health Information Technology announced the availability of state grants for planning and implementation of HIE. Applications were due October 16, 2009. Additional federal guidance indicates that states, who choose not to establish HIE within a state agency or department, should designate a nonprofit to establish HIE through an Executive Order issued by the governor. SB 337 (Alquist), Chapter 180, Statutes of 2009, provided the authority for a state department to implement HIE or for the Governor to designate an entity.

CHHSA intends that a separate nonprofit entity, commonly referred to in federal guidance as the "state-designated entity," or within CHHSA, as the "HIE governance

board,” to implement the requirements of the federal HIE grant. This entity’s responsibilities fall into three primary areas. (Please refer to Table 1):

**Table 1: Responsibilities of the HIE Entity**

Convene	Coordinate	Manage
<ul style="list-style-type: none"> <li>○ Provide neutral forum for all stakeholders.</li> <li>○ Educate constituents and inform HIE policy deliberations.</li> <li>○ Advocate for statewide HIE.</li> <li>○ Serve as an information resource for local HIE and HIT activities.</li> <li>○ Track/assess national HIE and HIT efforts.</li> <li>○ Facilitate consumer input.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop and lead plan for implementation of statewide solutions for interoperability.</li> <li>○ Facilitate alignment of statewide, interstate, and national HIE strategies, RECs, Medi-Cal, etc.</li> <li>○ Coordinate with the California Privacy and Security Advisory Board regarding privacy and security policies.</li> <li>○ Promote consistency and effectiveness of statewide HIE policies and practices.</li> <li>○ Support integration of HIE efforts with other healthcare goals, objectives, and initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>○ Issue and manage grants to local communities to develop local HIEs.</li> <li>○ Develop legal analyses.</li> <li>○ Oversee accounting and budgeting.</li> <li>○ Possibly contract for statewide shared services, such as a master patient index.</li> <li>○ Evaluate and assess progress of state HIE efforts.</li> </ul>

***Choosing an Entity for Health Information Exchange***

To choose the “state-designated entity” or “governance entity” to oversee and manage the development and implementation of statewide HIE services, CHHSA began a Request for Information (RFI) process. This differs from the typical state Request for Proposals (RFP) process, in terms of the approvals needed from the California Departments of Finance or General Services, and in regard to the formal bidding process used, as described in the State Administrative Manual.

On August 25, 2009, the RFI was released to the public. Applications were due September 10, 2009 with the intention that this entity would be chosen prior to the federal HIE grant deadline of October 16, 2009. (Please refer to Appendix A: HIE Timeline.)

CHHSA received seven applications and upon initial review, and notified five of the applicants that their applications do not meet state requirements for HIE. The final two applicants were asked to submit responses to questions and concerns raised by CHHSA’s scoring committee.

Additional clarifying questions were sent to applicants in late October, and applicants were asked to meet with agency staff regarding their application. In that meeting, the final two applicants were notified that neither applicant met CHHSA's minimum criteria. According to CHHSA, each of the final applicants had strengths that could balance out the other's weaknesses. The final two applicants were asked by CHHSA to put a joint proposal together outlining a partnership to become the state's entity for HIE.

As of mid-December 2009, CHHSA continued meeting with the final two applicants to work toward a potential partnership. The identities of the seven applicants have not been disclosed by CHHSA at that point.

By late December, it became clear that the two entities would not be merging to form a new non-profit. However, leadership from both entities agreed to put aside differences to assist CHHSA in the formation of a new non-profit organization, which will receive the state's designation to promote and establish HIE.

In addition to the selection process, CHHSA began holding workgroups to begin work on an HIE operational plan, as required by the federal grant, to detail how the state intends to operationalize its HIE strategic plan.

3. **Regional Extension Center (REC) Grants.** The adoption of complex EMR technology is not a simple "plug-and-play" operation. To achieve meaningful use, providers need comprehensive technical assistance to facilitate readiness and planning, product selection and purchase, training, implementation and practice redesign. An additional \$640 million in federal grants are available to local non-profits to provide technical assistance and support to providers, in two rounds of funding.

Each REC is expected to support roughly 100,000 providers in their geographic area, and can receive from \$30 to \$60 million per REC. Current REC applicants in California have indicated they intend to spend from \$5,000 to upwards of \$6,800 per provider supported. California could receive approximately \$60 million in the first round of REC funding.

CHHSA has reviewed and submitted support letters for three California applications, and intends to provide continued coordination across REC entities. The agency has also developed a governance structure that includes a statewide administrative body to oversee the network of RECs and local extension centers, and to provide shared services across these entities.

### **Other Potential Federal Funding for HIT**

Of the \$2 billion in discretionary funding for HIT implementation and promotion allotted to the discretion of the federal Secretary of Health and Human Services, the following grants have also been announced:

- **HIT Workforce Training Grants** to community colleges to develop and expand HIT training programs. Of the \$70 million in grant funding, California, Arizona, Nevada and Hawaii will receive one regional grant, with an anticipated grant award of \$10.75 million.

- **Beacon Community Cooperative Grants** to local communities to build and strengthen their HIT infrastructure and exchange capabilities, including strong privacy and security measures for data exchange, so they can demonstrate the vision of the future where hospitals, clinicians and patients are meaningful users of health IT. The goal of these grants is to develop models for communities to achieve measurable improvements in health care quality, safety, efficiency, and population health. A total of \$220 million in federal funding is available, with each community chosen expected to receive \$10-20 million.
- **HIT Technology and Infrastructure Research Grants** to researchers focused on solving current and expected future challenges that represent barriers to adoption and meaningful use of HIT, through the proliferation of new methods and advanced technologies. These projects focus on areas where “breakthrough” advances are needed. A total of \$60 million is available.

### **Potential for HIT to Improve Health Care Delivery**

HIT holds untapped potential to improve health care delivery, improve health outcomes, improve management of chronic conditions, and to help meet public health goals. Electronic sharing of health information can assist providers to improve care delivery for those who are in need in our state, including those suffering from chronic conditions, such as Alzheimer’s, asthma, diabetes, and heart disease, those depending on the safety net for their care, and those living in areas where health care services are not readily available.

### ***Informing and Improving Health Care Decision Making***

A 1999 study by the Institute of Medicine indicates that up to 98,000 preventable deaths take place in the U.S. each year. HIT can help decrease the level of preventable medical errors and assist providers in improved decision making by providing evidence-based clinical decision support at the point of patient care. EMR systems can be designed to:

- Give providers detailed medical histories of patients in real time at the point of care;
- Enable detailed tracking and coordination of patients’ conditions, medications and treatment, including post-hospital care; and
- Provide computerized reminders and prevention guidelines to providers and patients to improve patient compliance.

According to the Agency for Healthcare Research and Quality, physicians using computerized decision support systems reported lower incidence of serious medication errors because of better information about contraindications, complications and drug interactions.

In addition to helping decrease the rate of medical errors, the development of statewide HIT infrastructure also provides a mechanism to access population level data that can be used to improve the clinical evidence base that modern medical science is founded upon.

### ***Meeting Public Health Goals***

Enabling better access to health information plays a critical role in helping local public health officials meet public health goals. Electronic access to individual and population based health data enables public health departments to:

- ***Improve delivery of direct patient care.*** Local public health departments oversee the care of patients with tuberculosis, meningitis, rabies, HIV, STDs and other reportable diseases. HIT enables public health officers to track and facilitate treatment for patients in a more timely way, and to reduce the possibility of others becoming ill or dying.
- ***Improve surveillance of chronic conditions.*** HIE, at a community level and at the state level, could be a mechanism to access patient de-identified health data for population health studies.
- ***Better respond to public health emergencies,*** such as H1N1. HIT could help inform public health officials of outbreaks/epidemics and other conditions impacting service levels at hospitals in a more timely fashion. This system could also help public health official triage services in the event of large-scale disaster events, such as earthquakes.

### ***Empowering Patients to Manage Their Own Health***

Beyond providing decision making tools and accurate information for providers, HIT can also empower patients by providing tools to help them monitor and to manage their own health. This is particularly valuable for those who suffer from chronic conditions who are under the supervision of a care management team. Web-based PHRs can be used as a tool to share day-to-day health information with providers, increase patient health understanding, and help patients be better-educated consumers of health care. Furthermore, HIT can also provide a platform to improve communication and care coordination across a team of providers. Telemedicine is another example of using technology to remotely and less intrusively monitor patients' chronic conditions.

According to a 2008 Deloitte survey of health consumers, more than 60 percent of participants want online access to their medical records. Engaging consumers and providing patients with tools to make good health care decisions and better manage chronic conditions could simultaneously improve health outcomes and decrease health care costs.

### **Issues to be Addressed in the Hearing:**

- CHHSA's selection process and criteria used to designate an entity to establish health information exchange.
- Governing structure of the HIE entity and safeguards ensuring the entity is responsive to all groups and has an established public participation process.
- Privacy and security issues related to electronic access to, and exchange of, health information.
- Meeting the needs of safety net providers, including financing and assisting in the implementation of EMR systems.
- Long-term sustainability of the HIE, in terms of financing and governance.
- Defining "meaningful use" of HIT in the Medi-Cal program.