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Project Application

California Health Information Exchange Cooperative Agreement Program

Jonah Frohlich

Deputy Secretary, Health Information Technology  
California Health & Human Services Agency

DUNS Number: 80746923

1600 Ninth Street, Room 460  
Sacramento, CA 95814

(916) 651-8069

**Project Narrative**

**I. Current State**

**A. Current Status of Progress in Achieving Statewide HIE**

California is home to almost 37 million people, seven million of whom are insured through Medi-Cal, the State’s Medicaid program, while another seven million lack health insurance. Our residents are served by a complex, fragmented market consisting of 400 hospitals, 180 community clinic corporations, 1,200 nursing homes, and over 60,000 practicing physicians, two-thirds of whom provide services in private practices with ten or fewer physicians. The table below describes California’s progress toward achieving HIE and includes descriptions of known private and public sector capabilities relative to specific electronic transactions and reports. Through our operational planning efforts, we will continue to identify and understand these capabilities in greater detail, and will capture baseline data where it is lacking. The information below was obtained from the Department of Health Care Services (DHCS), the Department of Public Health, Surescripts, the California e-Prescribing Consortium, Kaiser Permanente, and other public sources.

**Table 1: Description of Current Capabilities**

<b>Current State</b>	<b>Capabilities</b>
<b>Electronic eligibility and claims transactions</b>	<ul style="list-style-type: none"> <li>• <b>DHCS:</b> Medi-Cal supports and encourages use of electronic media to perform eligibility and claims transactions, among others. To achieve this, Medi-Cal utilizes the standards for electronic transactions adopted under HIPAA. Medi-Cal accepts these standards for professional, institutional, and retail pharmacy claims. This includes the following standard transactions associated with electronic claiming and eligibility:               <ul style="list-style-type: none"> <li>▪ ANSI ASC X12N v.4010A1</li> <li>▪ Health Care Claims and Encounters – 837</li> <li>▪ Health Care Claim Payment/Advice – 835</li> </ul> </li> </ul>

- Health Care Claim Status Request and Response – 276/277
- Health Care Eligibility Benefit Inquiry and Response – 270/271
- NCPDP
  - Telecommunication 5.1
  - Batch 1.1

Medi-Cal's systems are enabled to accept the above transactions in one or more media: batch, real-time and/or direct data entry (DDE). In 2008, Medi-Cal's electronic claims submission rate average was 86.47%. The electronic percentage continues to increase over time. The claims volume for 2008 totaled 205,442,962 adjudicated claim lines. The eligibility inquiry volume for 2008 totaled 185,654,713.

- **DHCS Management Information System:** The Medi-Cal Management Information System/Decision Support System (MIS/DSS) was implemented in March 2008. This next generation MIS/DSS replaced the State's previous MIS/DSS, and was developed to provide a state-of-the-art Medicaid Data Warehouse (DW) capable of more fully supporting DHCS' information needs for both the day-to-day and long-term strategic management of the Medi-Cal program. Medi-Cal's new MIS/DSS Data Warehouse was built on a technologically advanced, service-oriented architecture (SOA) platform using a combination of best-of-breed, Commercial Off-the-Shelf (COTS) hardware and software components to maintain interoperability and open standards. The DW provides an integrated repository of 10 years of Medi-Cal fee-for-service claims and managed care encounter data, including related eligibility and provider information. The DW stores this information in a relational database with a flexible data model that provides for a comprehensive Business Intelligence

	<p>system, which supports pre-defined standard reporting, ad-hoc queries and advanced analytical research. Consistent with DHCS' goal to organize care to promote improved health outcomes among the State's Medicaid population, DHCS is currently working to take greater advantage of Medi-Cal's DW by utilizing advanced analytical techniques to identify at-risk populations for which increased care management could reduce future health problems and costs.</p> <ul style="list-style-type: none"><li>• <b>DHCS/Denti-Cal:</b> The Medi-Cal program provides dental services through Denti-Cal; Denti-Cal provides for the standard HIPAA electronic submission of claims, Treatment Authorization Requests (TARs), and Notices of Authorization (NOAs). Providers, independently or through clearing houses or billing intermediaries, may transmit documents electronically to Denti-Cal and optionally, receive HIPAA standard electronic transmissions in return. Denti-Cal's electronic data interchange (EDI) service is a method of batch data submission available to all participating Denti-Cal providers. The following are the standard HIPAA transactions used:<ul style="list-style-type: none"><li>• Claims - 837</li><li>• Treatment Authorization Request (TAR) - 837</li><li>• Notice of Authorization (NOA) - 837</li><li>• Claims Status Request and Response - 276/277</li><li>• Claim Payment/Advice – 835</li></ul></li></ul> <p>Providers are also able to submit images and studies electronically. This increases the efficiency of the electronic claim process as there is no wait time to examine images necessary to process electronic claims. The latest figures available from</p>
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	<p>August 2009 had 18.7% of EDI claims with electronic images.</p> <p>In the past calendar year the electronic percentage of claims has increased from 30% to 35%. There was a brief decline in usage after the elimination of optional adult dental services. Within the dental industry itself the maximum percentage of claims that are EDI is in the 50% range.</p> <ul style="list-style-type: none"> <li>• <b>Kaiser: 2009</b> California pre-paid encounters are 100% electronic (this represents the bulk of Kaiser Permanente care delivery in California): <ul style="list-style-type: none"> <li>○ 2009 eligibility transactions program-wide (projected) = 5,349,000</li> <li>○ 2009 EDI Claims Volume: CA August YTD Total Claims = 988,748 August YTD EDI Claims = 545,609 (% EDI = 55%)</li> </ul> </li> <li>• <b>NaviNet:</b> NaviNet reports that over 70,000 California providers have registered to use their platform, and that over 50,000 are consistently using it. No other volume information is available at this time.</li> <li>• <b>Availity:</b> Over 2,000 providers are actively using Availity for claims transactions, eligibility and benefits determination for 45 California health plans. In 2008 over 450,000 claims were submitted through Availity.</li> </ul>
<p><b>Electronic prescribing and refill requests</b></p>	<ul style="list-style-type: none"> <li>• <b>Surescripts:</b> According to Surescripts, 3.28% of all prescriptions in California were transmitted electronically in 2008, representing more than a 100% increase in prescriptions transmitted electronically since 2007. The number of California physicians routing prescriptions electronically also more than doubled with 3,656 physicians routing e-prescriptions in 2008, representing a 102% growth since 2007. These figures do not include the 12,000 Kaiser physicians, or physicians practicing at the California VA facilities – all of whom use e-prescribing.</li> </ul>

<p><b>Electronic clinical laboratory ordering and results delivery</b></p>	<ul style="list-style-type: none"> <li>• <b>ELINCS</b> <a href="http://www.elincs.chcf.org">www.elincs.chcf.org</a> : As of April 2009, more than 40 organizations across the state, involving over 165 health care provider locations, have implemented ELINCS interfaces or are in the process of doing so.</li> <li>• <b>CALINX</b> <a href="http://www.iha.org/calinx/calinxrx.htm">http://www.iha.org/calinx/calinxrx.htm</a>: Currently six health plans, over 200 provider organizations, and two national laboratories send and receive data using the CALINX pharmacy and lab batch transaction standards.</li> <li>• <b>Kaiser</b>: 2009 Annual expected number of clinical lab results 73 million <ul style="list-style-type: none"> <li>○ Percent of these delivered electronically to EHR approximately 100%</li> <li>○ Percent of these that were ordered electronically approximately 84%</li> </ul> </li> </ul>
<p><b>Quality reporting capabilities</b></p>	<ul style="list-style-type: none"> <li>• <b>Center for Health Care Quality</b>: The California Department of Public Health Center for Health Care Quality (“CHCQ”) has responsibility for regulatory oversight of health facilities, health professionals, and clinical and public health laboratories to secure safe, effective, and quality health care for all Californians. Through CHCQ’s Licensing and Certification (L&amp;C) program and Laboratory Field Services (LFS) Program CHCQ plays a critical role in the protection of patient safety. CHCQ does this by evaluating applicant health facilities, agencies, clinical laboratories, and professionals for compliance with state laws and regulations in order to license, certify, or register them. CHCQ also investigates complaints, certifies health facilities’ and agencies’ compliance with federal laws and regulations, and oversees the education, training, and criminal record clearance of nursing home administrators, certified nurse assistants, home health aides, and hemodialysis technicians, clinical laboratory scientists, and phlebotomists.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Integrated Healthcare Association:</b> The Integrated Healthcare Association (IHA) Pay for Performance (P4P) program is the largest nongovernmental physician incentive program in the U.S. and includes 8 health plans and over 225 physician groups representing 35,000 physicians who provide care for 10.5 million HMO members in California. Performance results for 2008 show steady improvement in clinical quality, patient experience, and information technology enabled systems.</li> <li>• <b>Kaiser:</b> Kaiser participates in various quality reporting initiatives at both the state and federal level. Regarding California inpatient discharges, Kaiser reports 100% of the data electronically to the Office of Statewide Health Planning and Development, The Joint Commission, and the Centers for Medicaid and Medicare Services, e.g., any public reporting of discharges in 2008 was done from the EHR.</li> <li>• <b>Office of Statewide Health Planning and Development:</b> The Office of Statewide Health Planning and Development (OSHPD) collects and reports county and state-level quality measures to understand California health care issues. OSHPD reports on AHRQ quality indicators for hospitals, as well as preventable hospitalizations, and racial and ethnic disparities in health care. OSHPD also provides reports and data on long-term care facilities, primary and specialty clinics, and home health and hospice. All OSHPD reports are accessible online at <a href="http://www.oshpd.state.ca.us/">http://www.oshpd.state.ca.us/</a>.</li> </ul>
<p><b>Prescription fill status and/or medication fill</b></p>	<ul style="list-style-type: none"> <li>• <b>DHCS:</b> Medi-Cal is positioned to provide eligibility, formulary file and medication histories to all Medi-Cal providers in California. In August 2008, DHCS readied the Medicaid Management Information System (MMIS) to participate in an e-Prescribing proof of concept project in clinics and hospitals in</li> </ul>

<b>history</b>	<p>the Northern Sierra Rural Health Network. As a result of the project the Medi-Cal formulary file and medication histories are being delivered to the Medi-Cal providers at the point of care for decision support purposes as part of e-Prescribing. An evaluation of this project will be completed in June 2010.</p> <p>Medi-Cal is also cooperating with the Safety Net Institute of California on a project to assess improvements in quality of care as a result of making Medi-Cal's formulary file and beneficiary medication history data available to four regional public hospital systems. San Mateo Medical Center was the first to be granted access to this information (September 2009), with plans to add Kern Medical Center, Riverside Medical Center and Contra Costa Medical Center over the course of the coming year.</p> <p>Medi-Cal is currently procuring a modern claims processing platform through its MMIS request for proposal (RFP) that will be required to meet e-prescribing requirements and standards moving forward. Medi-Cal is prepared to capture e-prescribing data elements from claims data including prescription origin code and fill status indicators in order to measure “meaningful use” among Medi-Cal providers. The MMIS procurement is following the Medicaid Information Technology Architecture/Service Oriented Architecture (MITA/SOA) defined by the Federal Centers for Medicare and Medicaid Services (CMS). A major goal is to support the Medi-Cal meaningful use incentive program, ensure alignment with statewide HIE infrastructure, and support provider EHR adoption to improve care management and quality of services to Medi-Cal beneficiaries.</p> <ul style="list-style-type: none"><li>• <b>CALeRx Consortium Health Plan Survey:</b> The California E-Prescribing (CALeRx) Consortium is currently conducting a survey to identify health plans providing medication history and other information to prescribers. To date, seven</li></ul>
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	<p>of the nine health plans that have completed the survey report sharing medication history data with prescribers. The survey is accessible online at <a href="http://www.surveymonkey.com/s.aspx?sm=cE5Rg4yeK3jy39i24PCgEQ_3d_3d">http://www.surveymonkey.com/s.aspx?sm=cE5Rg4yeK3jy39i24PCgEQ_3d_3d</a>.</p> <ul style="list-style-type: none"> <li>• <b>Surescripts:</b> Surescripts does not currently publish state-level information regarding prescription history requests and prescription history coverage, but anticipates providing this data in the future.</li> </ul>
<p><b>Electronic public health reporting (immunizations, notifiable laboratory results)</b></p>	<ul style="list-style-type: none"> <li>• <b>Kaiser:</b> 2009 Annual expected number of lab reports to authorized public health agencies: 51,000.</li> <li>• <b>California Immunization Registry:</b> The California Immunization Registry (CAIR) is California’s statewide immunization registry network, consisting of nine multi-county regional immunization registries. Each registry provides a computerized system designed to assist providers to track patient records, reduce missed opportunities, and help fully immunize all children in California.</li> </ul> <p>The CAIR structure enables providers to use web based registry software to enter immunization data and send records to the regional registry. Other relevant agencies, such as schools, childcare centers, and the Women, Infants and Children (WIC) program may also link into regional registries.</p> <p>CAIR is currently working to integrate the nine regional registries so information may be exchanged among them as well as with other large private and public sharing partners. Currently, (2006 report) three of the nine regional immunization registries report the ability to process, upload and send HL7 messages. This capacity is expected to increase in the near future.</p>

	<p>Once complete, the integrated registry system will provide the state with data to assess immunization coverage rates, identify pockets of need, and analyze how best to ensure all children receive full immunization coverage.</p> <ul style="list-style-type: none"> <li>• <b>Key Reporting Systems:</b> The Department of Public Health utilizes several reporting systems for public reporting and surveillance purposes. These systems and the organizations that partner with the Department of Public Health in their use are described below in Table 2.</li> <li>• <b>Real or Near-Real Time Surveillance:</b> More than two-thirds of California’s counties are engaged in enhanced surveillance to improve awareness of early event detection. Systems used include RODS NRDM, ReddiNet, BioSense, FirstWatch® and ESSENCE. Although the capacity varies by counties, many of the larger counties, such as San Diego, Los Angeles, Alameda and San Mateo, have done more extensive surveillance including outreach directly with hospitals and providers to exchange information.</li> </ul>
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**Table 2. Department of Public Health Key Reporting Systems**

System	HL7 Version	LOINC and/or SNOMED Enabled	Business Partners (CDC, LHDs, Hospitals, etc.)
I RASSCLE (Response and Surveillance System for Childhood Lead Exposure) Electronic Blood Lead Reporting Module: <ul style="list-style-type: none"> <li>• Imports data from various formats, including multiple versions of HL7.</li> <li>• Transmits blood lead tests to the case management/surveillance component.</li> <li>• Includes both batch and single form file submission.</li> <li>• Data includes patient, physician, blood lead test, and employer information (as required).</li> </ul> Operational – December 2004	2.1	No	Public and private labs performing blood lead analysis on Californians

System	HL7 Version	LOINC and/or SNOMED Enabled	Business Partners (CDC, LHDs, Hospitals, etc.)
<p>I.II RASSCLE (Response and Surveillance System for Childhood Lead Exposure) Case Management/Surveillance Module:</p> <ul style="list-style-type: none"> <li>• Conceptual and Logical data models for RASSCLE II utilized the HL7 Reference Information Model (HL7 RIM).</li> <li>• Data includes patient demographics and clinical information, patient address history, suspected lead sources, and environmental sampling.</li> </ul> <p>Operational – November 2006</p>	2.09	No	Local Health Departments
<p>III. CalREDIE Confidential Morbidity Reporting</p> <ul style="list-style-type: none"> <li>• California Code of Regulations, Title 17, Section 2505</li> <li>• Will receive laboratory testing results suggestive of specified diseases of public health importance submitted to the local health department.</li> </ul> <p>Planned implementation – June 2010</p>	2.3.1	Yes	LHDs, Hospitals, Public Health Labs, Commercial Labs, CDC, Other State & Federal Laboratory partners including reference labs.
<p>IV. SIS (Screening Information System) Genetic Disease Screening of all babies born in CA is tracked in this system.</p> <ul style="list-style-type: none"> <li>• SIS HL7 interface supports the functionality of creating a new Patient Service Record (PSR) in SIS.</li> <li>• The HL7 message contains all the data elements of a PSR such as Service Name, Service Provided Date and Service Status; also includes Client's identifying information like SSN, Name, and DOB.</li> </ul> <p>Operational – October 2006</p>	2.3.1	Yes	Genzyme (Prenatal Diagnostic Center)
<p>V. CCR (California Cancer Registry) All cancers in CA are reported to this registry.</p> <ul style="list-style-type: none"> <li>• Anatomic path and discharge reports sent to local and/or state cancer registry.</li> <li>• Also includes cancer case reports.</li> </ul> <p>Operational – October 2004</p>	2.31 / 2.4	U/A	Pathology laboratories, Hospitals, State and Federal partners
<p>VI. LDI (Lab Data Interchange) Virus and Rickettsial Disease Lab (VRDL) &amp; Microbial Disease Lab (MDL)</p> <ul style="list-style-type: none"> <li>• Laboratory test requests from business partners to VRDL and MDL and laboratory test results from VRDL and MDL to business partners.</li> </ul> <p>Operational – July 2009</p>	2.3.1	Yes	Local Health Departments, hospitals, private clinical laboratories, and other State & Federal Laboratory partners.

<b>System</b>	<b>HL7 Version</b>	<b>LOINC and/or SNOMED Enabled</b>	<b>Business Partners (CDC, LHDs, Hospitals, etc.)</b>
VII. StarLIMS Supports state laboratory functions. CDPH currently has six laboratories. <ul style="list-style-type: none"> <li>Laboratory test results from VRDL and MDL sent to CDC.</li> </ul> Planned implementation – May 2010	2.3.1	Yes	CDC

Table 3: Community HIE Initiatives

HIE	Year	Region	Org	Technology	Operational*	NHIN	Clinical Priorities	Financing to Date	Sustainability Model
Access El Dorado (ACCEL)	2004	El Dorado County	Unincorporated	Federated	Public health, mental health, 7 clinics, 2 hospitals	NA	Care coordination; public health, medical home	Grant, county, First 5, hospitals	In development
CalRHIO	2006	Statewide	501(c)3 (2009)	Regional overlays; HIE backbone	NA	NA	ED	Grant, Loan	Shared savings
EKCITA	2004	Eastern Kern County	501(c)3 (2009)	Hybrid open source system	3 clinics; 2 private practices; 1 hospital	NA	Diabetes & Regional public health issues	Grant	Minimum volume of users
Health-e-LA	2004	Los Angeles County	Unincorporated	Federated	NA	NA	Safety net	Grant, private	In development
Long Beach Network for Health	2003	Long Beach	501(c)3 (2007)	Hybrid federated model	NA	Yes	ED & Patient safety	Grant	Minimum volume of users
OCPRHIO	2007	Orange County	Unincorporated	Federated	NA	NA	ED	Grant	In development
Redwood MedNet	2003	Mendocino & Lake Counties	501(c)3 (2005)	Federated with decentralized network	24 providers 5k transactions/ month	Yes	Clinical data; Lab results delivery	Grant	Minimum volume of users
Santa Cruz HIE	1995	Santa Cruz	IPA & hospital based	Push model; vendor outsourced	Local hospital; county clinics; IPA 90k transactions/ month	Yes	Clinical messaging; results delivery; eRx	IPA support	Hospital & IPA contributions

\*Operational – Exchanging clinical data

B. Progress and Status of Project Planning and Implementation

Based on our formal self-assessment, utilizing the American Health Information Management Association's (AHIMA) Self Assessment and Technical Assistance Checklist, and as described in Section I.E.1 of the FOA, California has an existing Strategic Plan that is consistent with ONC's planning guidance. We do not, however, have an Operational Plan and instead will utilize planning funding awarded to us under the Cooperative Agreement Program to complete an Operational Plan for submission by March 31, 2010.

Our Strategic Plan is the result of an open, inclusive, and transparent planning effort that took place between April to August 2009, and which was executed in anticipation of ARRA's State HIE Cooperative Agreement Program. This planning effort was led by California's Deputy Secretary of Health IT, a position appointed by Governor Schwarzenegger in April 2009. It included:

- Monthly meetings with California's HIE Advisory Board, which consists of diverse stakeholders from across the State and was directed by the Secretary of Health & Human Services to guide the State's HIE strategy, to obtain their input and guidance;
- An environmental scan to assess the level of health IT adoption and use of HIE in California;
- An assessment of selected states' governance, technical, business and finance strategies;
- A review of how a statewide governance entity must be structured to comply with State law and create statewide policy guidance;
- Development and vetting of elements of HIE governance models that incorporate health outcome priorities and a statewide approach to technical infrastructure, privacy, security, and financing; and
- Extensive public input through five workgroups overseen by 14 co-chairs, web-based surveys, public forums and town halls, stakeholder teleconferences and an e-Health Summit.

Over 600 stakeholders participated in the strategic planning process, representing every major constituency in the State. The information gleaned through this process informed our Strategic Plan, which addresses the five essential domains for HIE laid out by ONC in the FOA.

## II. **Proposed Project Summary**

Under the State HIE Cooperative Agreement Program, California will rapidly accelerate implementation of information exchange in the State in line with federal standards and certification criteria. Specifically, we will:

- Develop statewide HIE that is governed and implemented cooperatively by the public and private sectors, the goals of which are to address specified health outcomes that include individual and population health status elevation, prioritizes meaningful use requirements.
- Form a statewide HIE governance entity that will oversee a statewide collaboration process to develop the common policies and technical standards that will enable participants to exchange health information in an interoperable manner throughout the State.
- Develop and enforce statewide policy guidance requiring all statewide HIE participants to comply with a common set of privacy and security guidelines and policies.
- Develop and enforce vendor-agnostic statewide technical guidance requiring all statewide HIE participants to comply with a common set of protocols and standards.
- Develop an approach for sustainable financing that does not rely on federal, state, or private grant-based funds.
- Coordinate an integrated approach with Medi-Cal and state public health programs to enable information exchange and support monitoring of provider participation in HIE as required for Medicaid meaningful use incentives.

A. Approach to Achieving Statewide HIE

Our approach to achieving statewide HIE in California consists of executing a series of activities across the five essential domains of HIE, as described below.

Governance

A coordinated statewide governance approach to implement HIE in California will be adopted. In August of 2009, we initiated a Request for Information (RFI) process to identify a statewide HIE governance entity. Seven entities submitted applications and an internal team scored and reviewed the proposals. We are in conversations with two of the seven entities and expect to select a governance entity this calendar year. Once selected, the State will contract directly with the governance entity to perform statewide HIE convening, coordinating, and management activities. Under the leadership of the statewide governance entity, California's stakeholders, including health information organizations (HIOs), health systems, consumers, hospitals, pharmacies, individual physician practices and clinics, health plans, employers, and others, will be engaged in a statewide collaboration process to develop the common policies and technical standards that will govern California's health information network and enable California's health care providers to exchange information in an interoperable manner. Exchanging health information will also support their ARRA meaningful use requirements.

The HIE governance entity will have a diverse board that accommodates broad stakeholder representation and State leadership, engenders trust and collaboration between and among all stakeholders, and employs robust administrative and financial processes to support sustainability, transparency and accountability. At a minimum, the HIE governance entity's primary responsibilities will include:

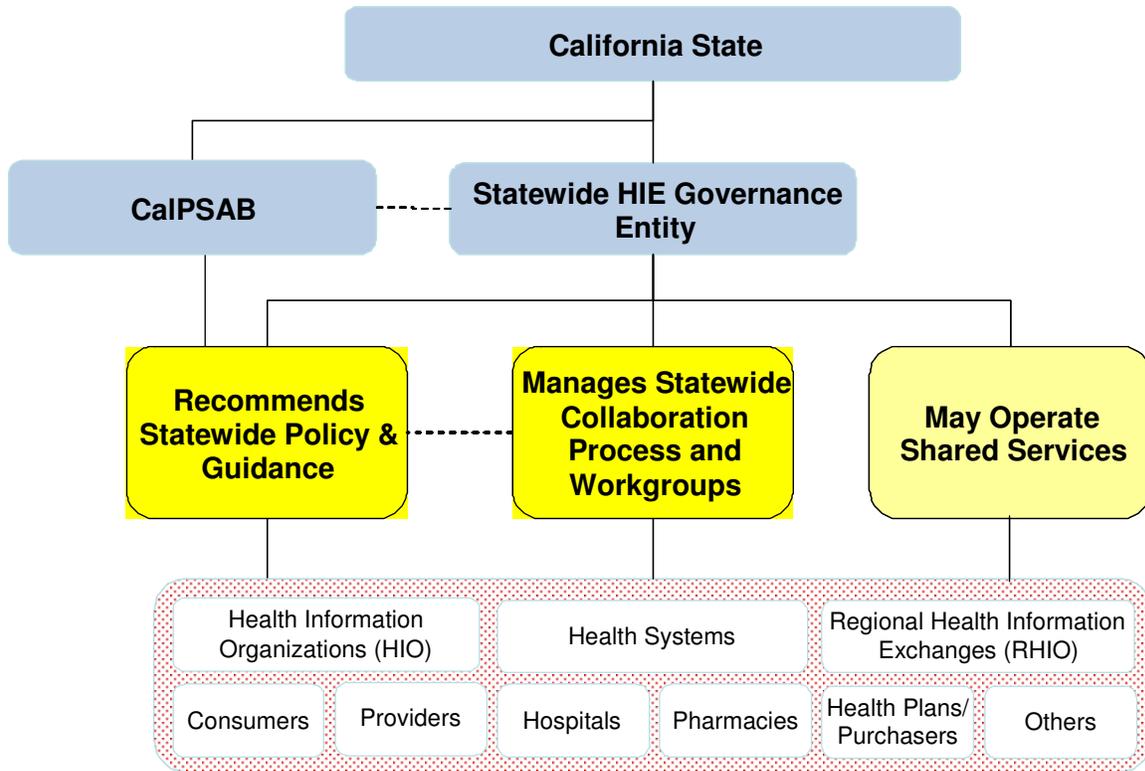
- Developing an operational plan that addresses the key components for statewide HIE identified in our Strategic Plan.

- Ensuring that meaningful use objectives including: electronic lab ordering and reporting, e-prescribing and medication reconciliation, continuity of care, eligibility inquiries and claims submissions, and public, population health, and quality reporting measures are supported.
- Establishing a technical architecture that leverages California's information technology infrastructure (i.e., leveraging systems used in California hospitals, practices and clinics, health plans, health information organizations, etc.) to enable the rapid propagation of information exchange services.
- Convening a broad array of stakeholders to agree to and support a set of common shared services.
- Determining the most efficient way to spend limited funding to support the identified priorities of lab data exchange, pharmacy / Rx history, continuity of care, public health and quality reporting, administrative transactions and other priorities as identified by the institutions engaged in health information exchange.
- Perpetuating and supporting HIE beyond stimulus funding by developing services that bring value to HIE consumers and deriving a sustainable business model from them.
- Adhering to all federal accountability and transparency requirements.

Our choice to implement a statewide governance approach is the result of an extensive environmental scan of the California marketplace, surveys of approaches of multiple other states, and engagement with our own stakeholders to understand their interests and requirements for HIE implementation in the State.

In coordination with the California Privacy and Security Advisory Board (CalPSAB), and as depicted below, the HIE governance entity will oversee a statewide collaboration process that will continue to employ workgroups consisting of diverse stakeholder representatives and staffed by subject matter experts that will formulate statewide policy guidance related to clinical goals and health outcomes, privacy and security, meaningful use, and technical standards and protocols. All HIE participants in California, including both

consumers and providers of health information, will comply with the statewide policy guidance developed through this process in order to access HIE funding and services.



**Figure 1. HIE Governance Framework**

New workgroups will be created at the outset of the statewide collaboration process in November, including: a Technical Advisory Workgroup, Finance Workgroup, Underserved and Vulnerable Populations Workgroup, and a Patient Engagement Workgroup. Each workgroup, with the support of consultant staff, will formulate a workgroup charter with a corresponding work plan outlining timelines and deliverables. We anticipate additional workgroups will be developed to address issues or challenges as they emerge. The HIE governance entity will determine a process for initiating and staffing new workgroups as necessary. Brief descriptions of each Workgroup and their suggested charges are below.

- *Technical Advisory Workgroup:* The Technical Advisory Workgroup will consist of executive leaders from hospitals, provider and clinic organizations, health plans, government and consumers, and will develop

use cases to link the statewide technical architecture to the delivery of value in the healthcare environment. These leaders will identify business processes that should be supported by statewide HIE infrastructure and prioritize implementation activities to correspond to emerging meaningful use objectives to maximize ARRA funding opportunities. The Workgroup will develop policy guidance for the statewide technical architecture to enable practical implementations, ensuring that the statewide technical architecture is coordinated with and will enable access to Medi-Cal data and other state health IT resources; identifying and prioritizing candidate shared services; and proposing enforcement mechanisms to ensure adherence with technical and policy guidance. The Technical Advisory Workgroup will be staffed and overseen by subject matter experts and will ultimately advise and make recommendations to the governance entity and the State.

- *Finance Workgroup:* Recognizing that the creation of a robust HIE infrastructure in California will depend on its ability to secure the financial capital to build infrastructure capabilities and develop ongoing revenue streams to maintain operations, a Finance Workgroup will be convened to address the need to develop sustainable business models for HIE in California. The Finance Workgroup will evaluate HIE sustainability models in the context of California's market and propose business models to sustain the HIE infrastructure.
- *Underserved and Vulnerable Populations Workgroup:* While the HIE strategic planning process has been open to the public and provided various mechanisms for public input, the State recognizes the need to reach out to vulnerable and underserved populations and their advocates to ensure that their needs and interests are appropriately represented in the statewide process. This Workgroup will address the specific needs of these populations, including children in foster care programs, aging and disabled populations and the uninsured, and incorporate their needs into the operational plan. The Workgroup will advise the HIE governance entity on its communication and outreach strategy to ensure the considerations of its constituents are known and addressed.

- *Patient Engagement Workgroup*: California is the global center of technical innovation and venture capital, yet those assets have not been fully mobilized in the strategic planning process. This workgroup will leverage both of these assets and identify innovative approaches to engaging and empowering patients through the use of technology that harnesses the HIE infrastructure.

### Finance

The FOA notes that "Medicare and Medicaid meaningful use incentives are anticipated to create demand for products and services that enable HIE among eligible providers. The resulting demand for HIE will likely be met by an increased supply of marketed products and services to enable HIE, resulting in a competitive marketplace for HIE services." While it is questionable whether a viable market for HIE exists today, ARRA programs including meaningful use incentives will significantly alter the landscape. Financing strategies will be developed enabling the provision of high-value HIE services, including those that support meaningful use and others that generate sustainable demand. Specifically, a sustainable business model for HIE in California will be developed by:

- Ensuring that business processes of intended users of the HIE are identified, incorporated into and supported by the HIE infrastructure.
- Incentivizing information exchange among the "trading partners" of providers (labs, pharmacies, radiology, etc.) and thus helping to create demand for HIE products and services.
- Coordinating with Medi-Cal and other state programs (as described further below).
- Creating and implementing shared directories and technical services to facilitate statewide HIE.
- Convening stakeholders and developing policy recommendations for business models that may require State legislative or regulatory action.

The State's financial and technical assets including access to ARRA administrative matching funds and

Medicaid and Medicare “meaningful use” incentive payments must also be leveraged to support the development of sustainable business models for HIE infrastructure.

### Technical Infrastructure

California is committed to a statewide technical architecture that leverages the existing investments of California’s health care provider institutions and community HIOs, and allows for regional flexibility while maintaining overall statewide standards and protocols and vendor-neutrality. By adopting a standards-based approach to interoperability, an environment will be created that enables the development of shared services based on existing capabilities where possible. In addition, these efforts will be aligned to satisfy the requirements for ARRA funding, especially by creating services that fulfill meaningful use criteria. The analogy we use to describe this process is an “Interstate with on-ramps” where HIE infrastructure will support stakeholder information exchange needs “at their door.” This approach will create incentives for providers to connect to the HIE - incentives that may include some form of dividend to support the infrastructure in order to secure meaningful use payments. Regional extension centers (RECs) will work closely with the HIE governance entity and Technical Work Group to ensure that interoperability requirements are incorporated into EHR vendor contracts that the RECs procure for.

Through our strategic planning processes, most stakeholders voiced support for a neutral connectivity model to connect local and regional HIEs that undergird a statewide technical architecture. Such a model emphasizes governance and coordination at the state level that enables new shared services to be more rapidly deployed. We will follow the following principles, among others, to develop our statewide technical architecture:

- Ensure an open and inclusive process, emphasizing the precise identification of the needs of the community (patients, providers, payors, vendors, government, etc.), the identification of priorities and a clear statement of the value proposition of HIE.
- Aggressively identify and deploy shared services in alignment with “meaningful use” as defined

by the federal government.

- Adopt late-binding protocols based on open standards to remain flexible and allow for changes to be made as technology and standards shift or are adopted.
- Incorporate NHIN and federal standards adopted by the ONC HIT Standards Committee and adopted by HHS.
- Employ vendor and technology neutrality, allowing providers who have already invested in EHRs and existing HIOs to connect to the new infrastructure without “rip and replacing” their investments.

#### Business and Technical Operations

The State will contract directly with a governance entity to perform statewide HIE convening, coordinating, and management activities. This will include the execution of necessary business and technical operations to ensure successful HIE. As noted in the FOA, such operations could include but will not be limited to activities such as: procurement, project management, help desk, systems maintenance, change control, program evaluation, business planning and reporting. The HIE governance entity’s efforts to coordinate with the State’s regional extension centers to support health care provider EHR adoption, and with the State Medicaid (Medi-Cal’s) meaningful use program falls into this work stream, and will include strategies to support California’s health care providers’ meaningful use of EHRs consistent with federal standards. The Operational Plan will reflect these priorities and define a step-wise deployment model based on meaningful use, including:

- Electronic prescribing and refill requests, including prescription fill status / medication fill history
- Clinical laboratory ordering and results delivery

- Clinical summary exchange for care coordination and patient engagement
- Electronic public health reporting (e.g., immunizations, notifiable laboratory results)
- Electronic eligibility and claims submission
- Public, population health and quality reporting

### Legal/Policy

As part of our strategic planning process, we examined the experience of other states where adherence to common and uniform state policies is being enforced through the terms of grant agreements governing state funding provisions, or as a condition of participation in the use of state resources, such as technology platforms. We have concluded that each of those models has deficiencies that can be addressed through a contractual model of participation and adherence.

In a contractual model, participants will be invited to participate in the statewide collaboration process to develop legal, business and technical rules that will govern health information exchange in California, and will bind themselves through a participation agreement to observe the rules that are adopted through this process. All entities who use the exchange must sign participation agreements. The development of such legal, business and technical rules will be closely coordinated with the work of CalPSAB, which has responsibility for privacy and security-related policymaking. Through the participation agreement, both providers of data and those who access and use data from the exchange will authorize the governance entity to establish appropriate oversight and enforcement mechanisms that will enable transparent enforcement of established policies. Mechanisms could include an arbitration forum in which disputes can be resolved, and authority to withdraw access to statewide shared services for a non-conforming data provider or consumer. We provide more details about this legal/policy model in the context of privacy and security below.

### Coordination with Medi-Cal

Medi-Cal is engaged in a planning process to coordinate the role that HIE and regional extension center programs will play in improving health outcomes for its constituencies, and is in the process of drafting a Planning-Advanced Planning Document (P-APD) to guide its implementation of ARRA's meaningful use incentive payments to California health care providers. As part of the operational planning process, Medi-Cal will work closely with the governance entity to consider strategies to leverage ARRA's Medicaid administrative match to support HIE. Further, activities across Medi-Cal and state public health programs will be coordinated to avoid duplication of effort and to ensure the integration and support of a unified approach to information exchange.

#### B. Potential Barriers to Achieving Statewide HIE In California

Like other states, we face a number of barriers in our development of statewide HIE in California. These include the lack of a current market for HIE services; insufficient resources and competing priorities for those attempting to develop HIE; barriers to interoperability across laboratories, hospitals, clinician offices, health plans and other health information trading partners; variations in interpretations of privacy and security law within California and across neighboring states; and the sheer scale of the technical implementation effort required to enable information exchange across the nation's largest state.

We also, however, have a number of challenges specific to California. While there is promising activity underway, it is uncoordinated. California currently lacks an organizing and convening framework that will allow us to meet our vision for a patient-centric health system supported by HIE. Over the past 15 years, over 20 self-characterized HIE efforts have been initiated, largely as uncoordinated, regional initiatives. Of these, only three are currently exchanging clinical data. Over a dozen initiatives remain in the organizing, fundraising, and piloting stages, generally struggling with lack of resources and capital. As we engage in a statewide collaboration process to develop the common policies and technical standards to support statewide HIE, we will take into account the complexity and variation in California's existing HIE activities.

#### C. High-level Project Plan and Timeline

As noted above and based on our formal self-assessment, California has an existing Strategic Plan that is consistent with the ONC's planning guidance. We have begun efforts to develop an Operational Plan, which will continue through the first quarter of 2010.

The high-level project plan anticipates a four-year project period, as proposed in the FOA. Specifically, it details the remaining planning activities that must be completed to finalize an Operational Plan by March 31, 2009. Activities beyond this period are subject to change and should be considered best estimates pending completion of the detailed staffing requirements and work plan that will be submitted as part of the Operational Plan. Our work plan is organized around the following work streams: Governance, Finance, Legal / Policy, Business and Technical Operations (which includes Technical Infrastructure-related activities), and Evaluation.

After completion of the Operational Plan at the end of March, a first procurement to expand HIE coverage within the State will be initiated. This procurement is expected to be complete by September 2010. As the first procurement moves into implementation and production, it will be reviewed and evaluated and a second procurement will be designed to further expand HIE coverage and required services. This second procurement is expected to be completed before the end of Federal Fiscal Year 2011. Details regarding procurement strategies will be defined in the Operational Plan.

Other work streams associated with the project, such as the development of privacy and security policies, communication and outreach, and evaluation, will also be conducted in an iterative fashion. Initial planning for these activities will be completed by the end of March 2010. Annual reviews will be conducted and progress executing these work streams will be recalibrated as necessary to ensure that the program is proceeding in the most efficient manner possible. A detailed workplan outlining tasks through the end of the proposed project can be found in Exhibit B.

D. Compliance with Privacy and Security Requirements for Health IT

We recognize that efficient and effective electronic exchange of health information will be impeded without comprehensive, statewide policies to protect the privacy and security of patient health information. We have a strong foundation from which to build such policies, and will leverage CalPSAB as a platform for collaboration between government and the private sector to coordinate HIE privacy and security policy in our State.

CalPSAB has operated for more than two years and now has five committees that report and recommend privacy and security policies for electronic health information exchange to the Secretary of the California Health and Human Services Agency. Hundreds of volunteers are involved in this process and include public and private entities from the health care industry, privacy advocates, and consumers. CalPSAB has developed Initial Privacy and Security Guidelines for recommendation to the Secretary that will apply to participants in electronic health information exchange.

As HIE efforts progress, CalPSAB will continue to review a number of health care use cases to evaluate the effectiveness and adequacy of our Initial Privacy and Security Guidelines and their support of meaningful use of health care information. In addition, CalPSAB will continue to evaluate and expand the permitted purposes for which individual health information may be transmitted electronically through an HIE. Where appropriate, the initial guidelines will be amended and made consistent with State and federal law. When inconsistencies or barriers to the flow of individual health information are identified, proposals to modify state law will be developed and the guidelines modified. Initially, participants in HIE will be required to adhere to the Privacy and Security Guidelines through data use and reciprocal service agreements. The HIE governance entity will recommend oversight and enforcement mechanisms to the Secretary. To increase stakeholder participation in the development of privacy and security policies a Consumer Forum will be held in early 2010. The California Office of Health Information Integrity has committed to help ensure representative stakeholder participation in this process.

Recognizing the barrier to interoperability posed by varying state health information privacy laws, efforts will be made to harmonize the disparate requirements of our neighboring states. While California does not have

particularly dense populations along its state borders, our health care providers, especially our large hospital systems, have significant presence in neighboring states. These institutions are interested in participating in programs that are consistent across states and do not require completely separate and inconsistent policy guidance and rules. California is very interested in continuing conversations with both policymakers and public and private institutions from our own and neighboring states, and would be willing to participate in burgeoning federal efforts to develop interstate compacts to enable cross-border HIE.

E. Stakeholder and Community Communications Strategy

California's strategic planning efforts to date have been extremely inclusive, incorporating the input of over 600 stakeholders. Our efforts have included:

- Convening a public-private HIE Advisory Board to review and provide input on the process and deliverables associated with state implementation of HIE. The HIE Advisory Board was co-chaired by Health and Human Services Secretary Kim Belshé and Dr. Paul Tang, Vice President and Chief Medical Information Officer, Palo Alto Medical Foundation.
- Interviews with eight HIEs, six health systems, and the California Telehealth Network to determine the stage of implementation of initiatives underway at these institutions (e.g. planning, preliminary implementation, operational), planned or current functionality (e.g. e-prescribing, clinical data exchange, administrative payment processing), technical architecture, key stakeholders and population served.
- Convening three stakeholder meetings (town halls) to obtain input into potential models and the organizational and structural criteria for an HIE governance entity. More than 200 stakeholders attended these meetings in Sacramento, Los Angeles, and Fresno, representing hospitals, physician groups, privacy advocates, consumer advocates, health plans and insurers, employers, providers, clinics, public hospitals, long-term care facilities, allied health professionals, legislative staff, vendors and systems integrators.

- Five workgroups led by 14 co-chairs and involving hundreds of volunteers developed plans for regional extension centers, loan funds, research and new technologies, workforce and broadband/telehealth. These were coordinated with the HIE planning process and culminated in an e-Health Summit attended by almost 200 people.
- Development of a web-based information collection tool to facilitate additional public participation and feedback; over 135 responses have been submitted to date and comments incorporated into the planning process.

This level of engagement will continue as new workgroups are launched in November. The statewide collaboration process will rely on the active participation of all stakeholders. A broadly-targeted communication plan will also be executed to educate California consumers about the benefits of HIE and the ways in which their health information will be protected. Tools developed through our strategic planning process will be used to engage the public, including use of websites ([www.hie.ca.gov](http://www.hie.ca.gov)) a public workspace wiki, bi-weekly bulletins, listservs, and other social networking and collaborative tools. Monthly public stakeholder calls will be hosted to keep the community informed of, engaged in, and supportive of the development of HIE in California. These calls are regularly attended by over 150 people.

F. Involvement of Community-based Organizations in Project Planning and Implementation

The statewide collaboration process will include community-based organizations representing medically underserved, vulnerable, and special populations including newborns, children, youth, those in foster care, elderly persons with disabilities, limited English proficiency persons (LEP), persons with mental and substance use disorders, and those in long term care. Specifically, the statewide collaboration process will include a workgroup focused on addressing the needs of underserved and vulnerable populations. This workgroup will simultaneously serve as a forum and a communication vehicle, soliciting stakeholders' input and feedback, as well as disseminating messages appropriate for identified vulnerable and underserved populations. The workgroup will advise the governance entity on its communication and outreach strategy to ensure the considerations of underserved populations are known and addressed in a timely fashion.

Members of the workgroup representing vulnerable and underserved population will be required to provide their expertise and insight into the unique needs of the vulnerable and underserved throughout the project. In addition, the California Health and Human Services Agency oversees and has a long history of collaborating with the California Department of Mental Health, the Department of Alcohol and Drug Programs, the Department of the Aging, and the California Department of Social Services, and will involve all agencies in the statewide collaboration process as appropriate.

**G. Consideration and Incorporation of Interests of Stakeholders**

The statewide collaboration process is designed to incorporate the interests of: health care providers, including providers that provide services to low income, vulnerable and underserved populations, health plans, patient or consumer organizations, health information technology vendors, health care purchasers and employers, public health agencies, health professions schools, universities and colleges, clinical researchers and other users of health information technology involved in the care coordination of patients. These stakeholders will be invited to participate in governance and workgroups that address the five essential domains of HIE, each of which will be staffed with subject matter experts. Technical, business and legal rules that are adopted as statewide policy guidance through the statewide collaboration process will be inclusive, fair, and transparent. This approach will combine the critical elements of securing wide community participation and buy-in while assuring the achievement of public health goals, thus meeting the needs of all participants.

**III. Required Performance Measures and Reporting**

The ability to track progress toward achieving statewide HIE goals is an important objective in our Strategic Plan, and one where resources will be appropriately allocated as part of this project. Various methodologies, tools and strategies will be employed to collect data to satisfy the specific reporting requirements required by the ONC State HIE Cooperative Agreement program. These reporting requirements will be augmented with additional criteria and performance measures which will be developed using federal planning funds. The reporting requirements listed below are an example of those requirements that we anticipate reporting as part

of the Cooperative Agreement.

- Governance
  - What proportion of the governing organization is represented by public stakeholders?
  - What proportion of the governing organization is represented by private sector stakeholders?
  - Does the governing organization represent government, public health, hospitals, employers, providers, payers and consumers?
  - Does the state Medicaid agency have a designated governance role in the organization?
  - Has the governing organization adopted a strategic plan for statewide HIT?
  - Has the governing organization approved and started implementation of an operational plan for statewide HIT?
  - Are governing organization meetings posted and open to the public?
  - Do regional HIE initiatives have a designated governance role in the organization?
  
- Finance
  - Has the organization developed and implemented financial policies and procedures consistent with state and federal requirements?
  - Does organization receive revenue from both public and private organizations?
  - What proportion of the sources of funding to advance statewide HIE are obtained from federal assistance, state assistance, other charitable contributions, and revenue from HIE

services?

- Of other charitable contributions listed above, what proportion of funding comes from health care providers, employers, health plans, and others (please specify)?
  - Has the organization developed a business plan that includes a financial sustainability plan?
  - Does the governance organization review the budget with the oversight board on a quarterly basis?
  - Does the recipient comply with the Single Audit requirements of OMB?
  - Is there a secure revenue stream to support sustainable business operations throughout and beyond the performance period?
- Technical Infrastructure
    - Is the statewide technical architecture for HIE developed and ready for implementation according to HIE model(s) chosen by the governance organization?
    - Does statewide technical infrastructure integrate state-specific Medicaid management information systems?
    - Does statewide technical infrastructure integrate regional HIE?
    - What proportion of healthcare providers in the state are able to send electronic health information using components of the statewide HIE Technical infrastructure?
    - What proportion of healthcare providers in the state are able to receive electronic health information using components of the statewide HIE Technical infrastructure?

- Business and Technical Operations
  - Is technical assistance available to those developing HIE services?
  - Is the statewide governance organization monitoring and planning for remediation of HIE as necessary throughout the state?
  - What percent of health care providers have access to broadband?
  - What statewide shared services or other statewide technical resources are developed and implemented to address business and technical operations?
  
- Legal/Policy
  - Has the governance organization developed and implemented privacy policies and procedures consistent with state and federal requirements?
  - How many trust agreements have been signed?
  - Do privacy policies, procedures and trust agreements incorporate provisions allowing for public health data use?

The governance entity will have a specific evaluation and re-prioritization function that focuses on ensuring that progress is being made toward statewide HIE goals and that course corrections are implemented as needed. Specifically, the Board of Directors of the HIE governance entity will be responsible for delineating the tools and methodologies by which the details set out above will be collected and reported. The Board will also be responsible for monitoring our progress and instituting remediation processes where sufficient progress is lacking.

As required by the FOA, progress will be reported against the performance metrics specified in the FOA, including:

- Percent of providers participating in HIE services enabled by statewide directories or shared services.
- Percent of pharmacies serving people within the state that are actively supporting electronic prescribing and refill requests.
- Percent of clinical laboratories serving people within the state that are actively supporting electronic ordering and results reporting.
- Additional measures that will indicate the degree of provider participation in different types of HIE particularly those required for meaningful use.

### **Project Management**

The Deputy Secretary, Health Information Technology will lead the completion of the Operational Plan and updates to the Strategic Plan as the project transitions to implementation. CalPSAB will continue to lead and staff statewide privacy and security collaboration efforts.

The State, working with consultants, will provide technical assistance in specific project areas as it completes its operational planning activities. Specifically, it will:

- Regularly convene the Technical Advisory Workgroup to discuss priorities, tradeoffs associated with various technical models, and potential solutions and to inform the Operational Plan
- Support transition activities, including the development of memorandums of understanding or contracts with the statewide governance entity to ensure that State requirements are incorporated
- Support the development of the Operational Plan

The Deputy Secretary, Health Information Technology, working in collaboration with the governance entity, will oversee the overall coordination and execution of the project, assuming leadership and monitoring the

project’s ongoing progress. The Deputy Secretary will work with personnel at the State, the HIE governance entity, and with consultants to ensure timely completion of project deliverables and the preparation of reports as required by ONC. The Deputy Secretary will maintain primary responsibility over communications with other partners, including ONC. Together, the Deputy Secretary, the State, its consultants and the HIE governance entity will regularly track progress on the project’s tasks and objectives, making necessary adjustments throughout the project as necessary and addressing issues in a timely and responsible manner.

It is anticipated that much of the State lead activity will transition to the statewide HIE governance entity to execute the strategic and operational plan. The HIE governance entity’s responsibilities fall into three primary areas described in Table 4 below.

**Table 4. HIE Governance Entity Responsibilities**

<b>Convene</b>	<b>Coordinate</b>	<b>Manage</b>
<ul style="list-style-type: none"> <li>• Provide a neutral forum for all stakeholders</li> <li>• Educate constituents &amp; inform HIE policy deliberations</li> <li>• Advocate for statewide HIE</li> <li>• Serve as an information resource for local HIE and health IT activities</li> <li>• Track/assess national HIE and health IT efforts</li> <li>• Facilitate consumer input</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and lead plan for implementation of statewide standards, rules and solutions for interoperability</li> <li>• Facilitate alignment of statewide, interstate, &amp; national HIE strategies, RECs, Medi-Cal, etc.</li> <li>• Coordinate with CalPSAB around privacy and security policies and policy guidance</li> <li>• Promote consistency and effectiveness of statewide HIE policies and practices</li> <li>• Support integration of HIE efforts with other healthcare goals, objectives, &amp; initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Issue and manage grants</li> <li>• Develop legal analyses</li> <li>• Oversee accounting and budgeting</li> <li>• Enforce statewide policy guidance</li> <li>• Contract for statewide shared services</li> <li>• Evaluate and assess progress</li> <li>• Develop accountability measures</li> <li>• Develop sustainable business models for HIE</li> </ul>

**IV. Evaluation**

California’s Strategic Plan lists the following seven goals:

- To ensure patients have safe, secure access to their personal health information and the ability to

share that information with others involved in their care;

- To engage in an open, inclusive, collaborative, public-private process that supports widespread EHR adoption and a robust, sustainable statewide health information exchange;
- To improve health care outcomes and reduce costs;
- To integrate and synchronize the planning and implementation of HIE, health IT, telehealth and provider incentive program components of ARRA;
- To ensure accountability in the expenditure of public funds; and
- To improve public and population health through stronger public health program integration, bio-surveillance and emergency response capabilities.

Two percent of the funding received through the State Health Information Exchange Cooperative Agreement Program will be allocated to conduct an independent evaluation that will assess the statewide HIE implementation efforts, including progress against the goals listed above and contributing to a national program-level evaluation.

An independent evaluation will be supported by an academic or consultant-based third party, secured through a competitive RFP process, that will develop standardized surveys, outcome measures including those related to patient safety, and will provide individualized consulting on study design and other research methods for evaluation. Provider and patient satisfaction, savings incurred as a result of HIE activity, and other aspects will be measured.

The details of such an evaluation process will be defined through the statewide collaboration process and will be included as part of our Operational Plan. At a minimum, the evaluation process will include:

- Continuous evaluation, reassessment and revision of the State Strategic and Operational plans.

- An annual evaluation that will be coordinated with the national program evaluation.
- Progress against performance metrics specified in the State HIE Cooperative Agreement program plus additional performance metrics identified during the development of the Operational Plan.

## V. **Organizational Capability Statement**

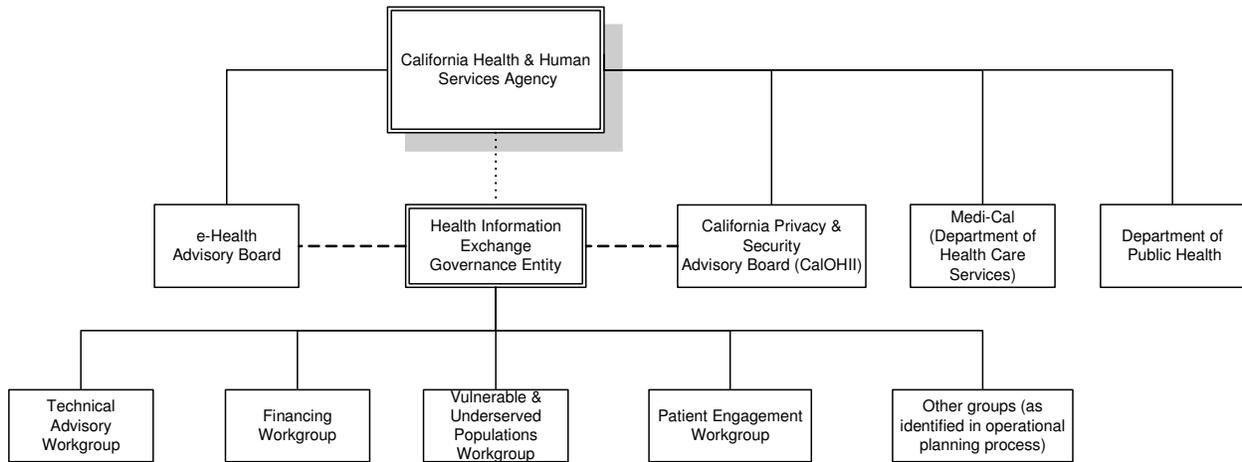
CHHS uses State general funds to support the position of Health IT Deputy Secretary, the Office of Health Information Integrity and the various initiatives described above leading to the current operational planning process. CHHS would continue funding these areas should they continue to be needed in support of statewide HIE infrastructure. CHHS anticipates that, ultimately, consumers of HIE services – hospitals, clinics, practices, health plans, consumers, government and others - would together support the HIE infrastructure that is developed under this program. The infrastructure must ensure that it delivers value to all constituents, supports current business processes and meaningful use priorities, and is flexible enough to accommodate new business processes that would support a transformed health care delivery system as part of the larger health reform agenda.

The following are key staff for California’s Health Information Exchange Cooperative Agreement Program:

- Jonah Frohlich, Deputy Secretary, Health Information Technology. Mr. Frohlich is the State e-health coordinator and will lead the overall effort.
- Kim Ortiz, Chief, Office of Medi-Cal Payment Systems. Ms. Ortiz is designated lead within Medi-Cal for the State’s meaningful use program.
- Linette Scott, M.D., MPH, Health Information and Strategic Planning, Department of Health. Ms. Scott is the designated lead for the Department of Public Health and will support integration activities with public/population health registries and programs.

- Alex Kam, Assistant Director, Office of Health Information Integrity and Bobbie Holm, Chief, e-Health Standards Branch, Office of Health Information Integrity. Mr. Kam and Ms. Holm lead the State’s privacy and security efforts and will work in coordination with the HIE governance entity to develop statewide policy guidance.

An organizational chart showing the relationship of the project to the current organization is below.



**Figure 2. Organizational Chart**

CHHS has a wealth of previous experience that demonstrates its ability to successfully oversee the development of statewide HIE in California and the execution of this project. The capacity of CHHS and its departments is demonstrated by the activities below, in which it has engaged over the past four years to improve health care delivery through the use of HIE and health IT.

- **The California e-Health Action Forum.** In July 2006, Governor Schwarzenegger issued Executive Order S-12-06 creating the eHealth Action Forum to develop a comprehensive State policy agenda for health information technology, incorporating the viewpoints of stakeholders including health plans, providers, consumers, technology vendors, and others. More than 130 public and private leaders participated in the forum, resulting in the publication of the *California Health Information Technology Study: Input into the California Health Data Exchange Roadmap*. Five key areas emerged from that study including:

(1) establishing HIT leadership, (2) identifying financing methods, (3) investing in HIT, (4) addressing privacy and security policies, and (5) engaging consumers. All five were adopted as priority areas for California.

- **The Office of e-Health.** The office of e-Health within the Administration was established to lead the State's health IT and HIE efforts to address priority area 1. The Executive level position of Deputy Secretary, Health IT within the Administration was created to lead this work; Jonah Frohlich was appointed Deputy Secretary in April 2009.
- **The Health IT Financing and Advisory Commission.** The Commission was convened as a result of priority areas 2 and 3 above to more fully understand and describe the California health IT and HIE landscape, adoption of EHRs and capital requirements needed to support widespread adoption of EHRs. A report was published in December 2008.
- **The California Privacy and Security Advisory Board (CalPSAB).** CalPSAB is a public/private collaboration established by CHHS to address and coordinate HIE privacy and security efforts in California. CalPSAB emerged out of the Agency for Healthcare Research and Quality and ONC- funded Health Information Security and Privacy Collaboration (HISPC) efforts that brought many HIE stakeholders together beginning in 2006. CalPSAB has conducted a detailed inventory and analysis of existing state laws that apply to privacy and security of personal health information, and has established a set of initial priority targets to rationalize and harmonize existing policies and requirements that often conflict with one another and are not uniformly applied. CalPSAB prepares and publishes privacy and security recommendations and has recently convened an HIE committee to create privacy and security guidelines that will be used for statewide HIE activities funded by section 3013 grants.
- **E-Prescribing:** In 2006 Medi-Cal, the largest State Medicaid agency in the country, supported an e-prescribing pilot program to provide medication history, formulary and eligibility information to Medi-Cal providers in Northern California. The program is intended to improve provider and patient access to

medication history, improving convenience and quality, while reducing costs and medical errors for Medi-Cal members. This program is being expanded to other regions in California and will be critical to supporting Medi-Cal provider meaningful EHR use statewide.

- **California E-Prescribing Consortium:** The California E-Prescribing Consortium is an open stakeholder collaborative composed primarily of health care providers, payers and pharmacies dedicated to identifying and resolving issues related to e-prescribing in California. The Consortium plans to host a web-based E-Prescribing Information Center in August 2009 as a resource for e-prescribing stakeholders.
- **The e-Health Advisory Board:** The Board was established in April 2009 to improve health care quality, delivery, access and safety for all Californians. To achieve its goals the Board supports coordinated and collaborative efforts among a diversity of health care stakeholders to adopt health IT and exchange services, and to develop and comply with statewide policy guidance, including information policies, standards, and technical approaches. The Board guided the development and publication of the California HIE Strategic Plan (see Exhibit A)
- **Public-Private Workgroups:** Five workgroups took on the work of drafting the concepts behind California's broader strategic plans for health IT and HIE. These workgroups coordinated California's stakeholder response to additional HIT elements not covered in the HIE program activities. Over six hundred individuals participated in the workgroup process during the summer of 2009, culminating in an e-Health Summit, and the publication of the State's health IT adoption strategic plan and its HIE Strategic Plan.
- **iHealth Report Series:** Deputy Secretary Frohlich previously managed the California HealthCare Foundation's iHealth Report series of publications when he served as Senior Program Officer. These reports include Service Oriented Architecture in Health Care, the State of Health IT in California, Open

Source EHRs, Lessons from Santa Barbara (*Health Affairs*), Gauging Progress on the National Health IT Initiative, and over two dozen other publications.

- **HIE Governance Entity Request for Information:** In August of 2009, CHHS initiated a RFI process to identify a statewide HIE governance entity. Once selected, the State will contract directly with the HIE governance entity to perform statewide HIE convening, coordinating, and management activities.