An Unprecedented Opportunity:
Using Federal Stimulus Funds to Advance Health IT in California

California HealthCare Foundation

ISSUE BRIEF

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Introduction

The Health Information Technology for Economic and Clinical Health (HITECH) Act, a component of the vast federal stimulus legislation known as the American Recovery and Reinvestment Act of 2009 (ARRA), authorizes roughly $36 billion in outlays over six years for health information technology—an unprecedented investment in the nation's health information infrastructure. Its success will be measured in part by how well it is implemented and the impact it has on improving the quality, safety, and efficiency of care.

Unlike almost all other industries that have implemented information technology, health care retains many of the characteristics of a cottage industry. Despite decades of attempted consolidation, a sharp focus on quality and consistency, and a modest investment in health information technology (health IT), health care practice remains largely unchanged: fragmented, inconsistent, and only intermittently automated. While many hospitals and large medical groups have adopted health IT systems, most of their smaller counterparts have not had the resources, financial incentives, or economies of scale to do so.

Although health IT alone will not transform health care, it does have the potential to stimulate changes that will enhance the quality and safety of health services, stabilize or decrease their cost, reduce waste and inefficiency, increase transparency, and transform the health care enterprise into a learning organization with the capacity to self-correct and improve. Experience has shown that this potential is not easily realized. It is a process that requires time, as well as changes in how physicians and other clinicians practice; changes in enterprise and industry workflows; and changes in legacy health IT infrastructure that was not designed to exchange data with other systems.

As the Obama Administration has indicated, the ARRA funds allocated to health care—including more than $36 billion in funds directed towards health IT infrastructure and adoption incentives authorized in the HITECH Act—are a down payment on the much larger amount needed to effect meaningful reform of health care in the United States.

California—the center of innovation in biotechnology, health IT, and health care delivery—is well positioned to make effective use of the ARRA funds. This issue brief presents an analysis of the Act and recommendations to the Schwarzenegger Administration, the California Legislature, and others on how to prepare for, compete for, and use the state's fair share of the those funds, which could amount to more than $3 billion.

Overview of the HITECH Act

The HITECH Act sets forth a framework for the development of federal policy and the expenditure of federal stimulus money to advance the design, development, and operation of a nationwide health information technology infrastructure that allows for the electronic use and exchange of information. The goal of the legislation is to ensure that each person in the United States has an electronic health record by 2014.

While the Act leaves significant discretion to the Secretary of Health and Human Services (HHS) with respect to the details of federal policy implementation, it sets specific responsibilities for the public and private agencies that will be charged with developing and implementing federal policy. It also establishes program goals and eligibility criteria applicable to those private entities that will receive federal money. Specifically, the HITECH Act requires the development of:

- Policies, new technologies, and approaches for protecting the privacy and security of health information;
- Strategies to enhance the use of health information technology in improving the quality of care, reducing medical errors, reducing health disparities, improving public health, increasing prevention and coordination with community resources, and improving the continuity of care among health care settings; and
- Specific plans for ensuring that the technology—including those systems that automate the enrollment and retention of eligible individuals—is designed to be appropriate for populations with unique needs.

The HITECH Act provides the HHS Office of the National Coordinator (ONC) with substantial responsibility for setting strategy, including: harmonizing the efforts of federal agencies and the private sector; recommending standards, implementation specifications, and certification criteria needed for the electronic exchange and use of health information; and designing a plan for coordinating the implementation of the grant, loan, demonstration programs, and incentive payment requirements authorized by the Act.

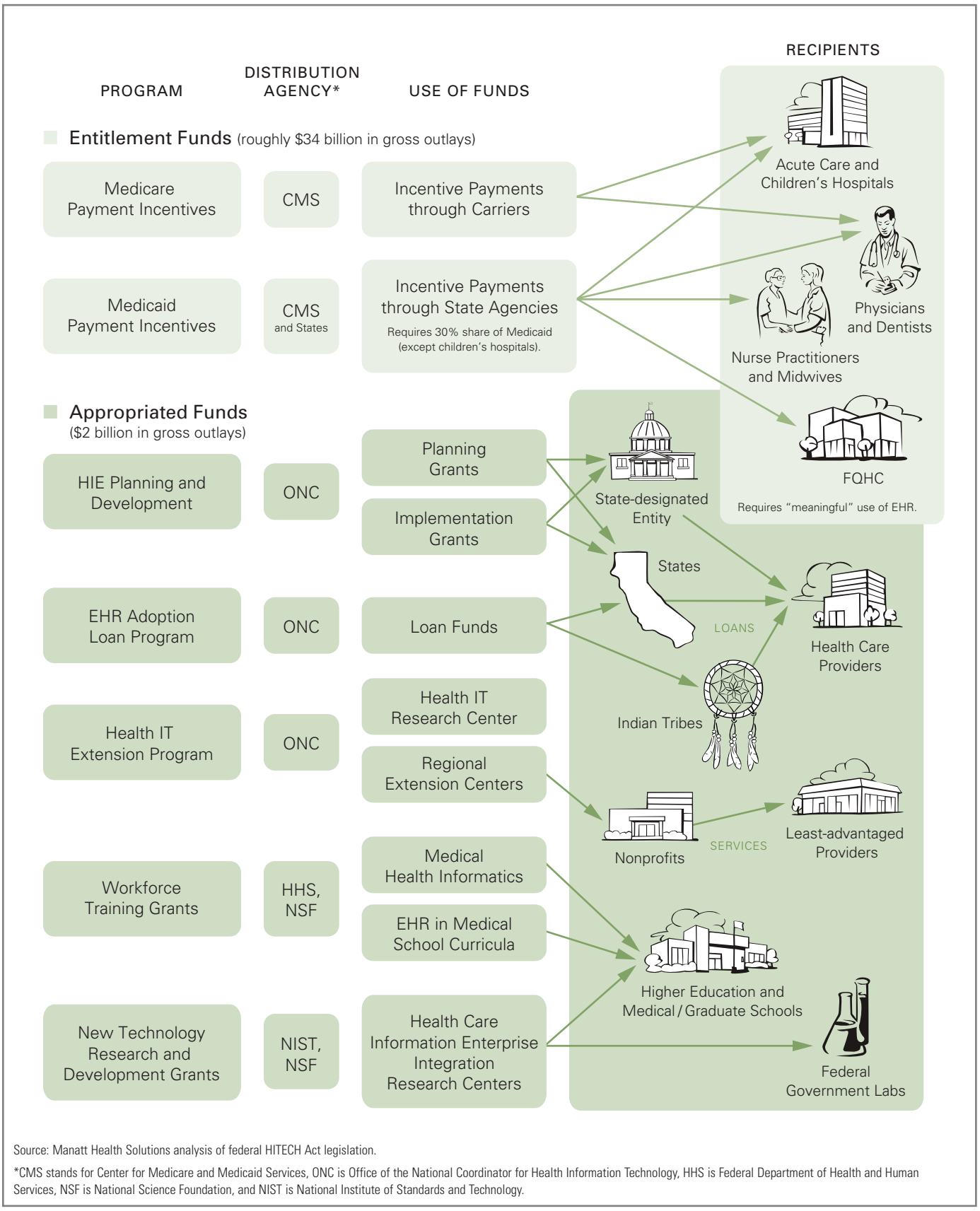
The Act creates two federal advisory committees to advise the ONC—a HIT Policy Committee and a HIT Standards Committee—to provide formal mechanisms for private sector input into federal policy. Among other requirements, it specifically calls for the ONC to establish a governance mechanism for the Nationwide Health Information Network (NHIN).

The legislation authorizes the outlay of federal money in an amount estimated by the Congressional Budget Office (CBO) to be roughly $36 billion over six years. The vast majority of funds—approximately $34 billion—are expected to be distributed between 2011 and 2016 as adoption incentives through Medicare and Medicaid to qualified health care providers who adopt and use electronic health records (EHRs) in accordance with the Act's requirements. (See Figure 1 on page 3 for a flow chart of the Act's funding streams.) The Act specifically acknowledges that additional money may be needed to accomplish the legislation's goals, requesting that ONC report to Congress annually on the resources required.

The HITECH Act's EHR adoption incentive investments will be distributed based on statutorily defined formulas. Qualified health care providers are entitled to receive incentive payments if they meet the Act's requirements for being "meaningful" EHR users. The requirements are defined as: the use of certified EHR technology in a manner that includes the use of electronic prescribing for office-based physicians and is capable of exchanging electronic health information to improve the quality of health care; and the submission of information on clinical quality and other measures as selected by the secretary of HHS. It is anticipated that additional requirements to meet the "meaningful use" test will be developed during the rule-making phase.

In addition to the Medicare and Medicaid incentives, the HHS secretary will make a foundational investment of $2 billion in infrastructure outlays through grants, loans, and demonstration programs consistent with a strategic plan developed by the ONC. The HHS secretary is provided with wide discretion in how to allocate the $2 billion; among the authorized areas of investment are:

Figure 1. HITECH Act Funding Flows



Source: Manatt Health Solutions analysis of federal HITECH Act legislation.

*CMS stands for Center for Medicare and Medicaid Services, ONC is Office of the National Coordinator for Health Information Technology, HHS is Federal Department of Health and Human Services, NSF is National Science Foundation, and NIST is National Institute of Standards and Technology.

- Funding to strengthen the health information technology infrastructure at the regional, state, and multi-state level;
- Health information technology implementation assistance;
- State grants to promote health information technology;
- Grants for the development of loan programs to facilitate the widespread adoption of certified EHR technology; and
- Demonstration programs to integrate information technology into clinical education and assistance to establish or expand medical health informatics education programs.

It is expected that a significant amount of the HITECH Act's infrastructure investments will be used to support health information exchange (HIE) projects designed, built, and operated in accordance with emerging federal policy requirements. Significantly, the Act explicitly allows these investments to be made through states or qualified state-designated entities. These entities are defined as multi-stakeholder, nonprofit organizations that are designated by a state to conduct activities to facilitate and expand the electronic movement and use of health information among organizations according to nationally recognized standards.

By tying EHR adoption incentive investments to meaningful EHR use and including HIE, the HITECH Act suggests that the design, development, and operation of an HIE may be a precondition to obtaining incentive funds for EHR use. Since the funds are substantial, it can be expected that states, along with other interested stakeholders, will need to pursue HIE strategies consistent with emerging federal policy requirements.

Key Recommendations for California

The State of California has a significant leadership role to play in ensuring that patients, consumers, and the public realize the quality and safety benefits intended from the HITECH Act's investment in the effective use and adoption of EHRs and HIE.

To be eligible to draw upon the billions of dollars in funds provided by the HITECH Act for EHR adoption and use, health care providers must be connected in a manner that provides for the electronic exchange of health information to improve the quality of health care. California will only be able to meet this statutory requirement if the state collaborates with private stakeholders to create health information exchange capabilities that serve all California residents.

In order for the state to meet its obligations and perform the tasks required to make California competitive in applying for federal funds, this analysis presents 24 recommendations to the Schwarzenegger Administration and the California Legislature, including these key recommendations:

- **Appoint a Deputy Secretary of Health IT.** The governor should appoint a Deputy Secretary of Health IT, established within the California Health and Human Services Agency (CHHSA), to coordinate and drive the state's health IT strategy and implementation. It is crucial that CHHSA play a leadership role in facilitating a comprehensive HIE strategy, which is a foundational requirement for obtaining HITECH Act funds and a key to ensuring that investments in health IT care are used to improve the quality, safety, and efficiency of health care to California residents.
- **Select a qualified state-designated entity.** The state should take such actions as necessary to select a qualified state-designated entity or entities to apply for the HIE implementation funding made available under the HITECH Act. Selection criteria should

include a public-private governance structure that can inform federal policy guidance and develop statewide policy guidance through a transparent, statewide collaboration process. Policy guidance should include well-defined technical architecture plans and clinical requirements that allow for appropriate governance at the state and regional levels, as well as privacy and security to protect the flow of patient information.

- **Match funding needs to objectives.** CHHSA and California's state-designated entity should develop and advance policy recommendations regarding the amount of additional funding required to accomplish the health IT objectives of the HITECH Act, where the funds should be spent, and how they should be allocated.
- **Facilitate Medi-Cal incentive payments.** The California Department of Health Care Services should establish policies, procedures, and information systems required to facilitate Medi-Cal incentive payments for the implementation and adoption of EHRs by physicians, hospitals, community health centers, and others in California, as authorized by the HITECH Act.
- **Get a seat at the federal table.** The governor should appoint individuals to actively engage with federal officials and policymakers to ensure that California has a meaningful voice at the table during the regulatory process within which the HITECH Act's specific funding mechanisms will be determined.
- **Authorize matching funds.** The legislature should appropriate funds in the amount required to match the federal funding authorized under the HITECH Act in order for California to take full advantage of the opportunities available through the Act.
- **Provide technical guidance and education.** The California Office of Health Information Integrity should disseminate technical guidance to all parties that engage in electronic information exchange to clarify the interplay between California and federal health privacy law and recommend best practices for facilitating legal compliance. The California Office of Health Information Integrity should also take steps to educate patients, consumers, and the public on new and existing health privacy safeguards intended to ensure the confidentiality and security of personal health information.

Specific Areas for Policy Development and Funding

This section summarizes each of the primary elements of the HITECH Act and offers recommendations for how California can influence federal policymaking for directing HITECH Act funds and position itself to put them to use. A glossary of terms used in the discussion can be found on page 19.

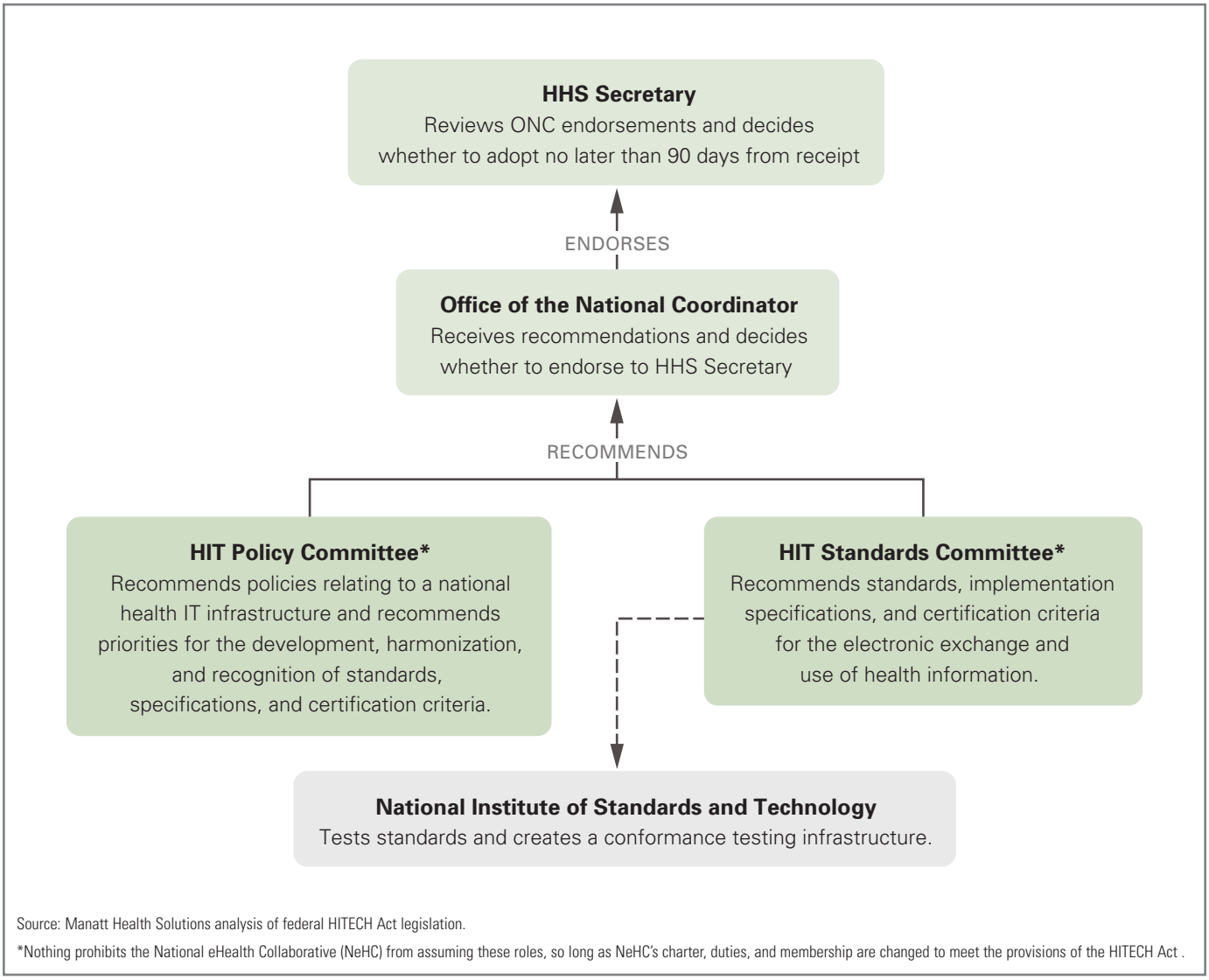
Federal Policy and Standards-Setting Framework

The HITECH Act sets forth a federal framework for the development of policies, standards, rules, and regulations that will apply to all recipients of health IT funding (Figure 2). The framework consists of the following components:

Office of the National Coordinator (ONC) of Health Information Technology. Located within the Department of Health and Human Services, the ONC is responsible for a broad range of duties intended to promote the development of a nationwide health IT infrastructure that allows for the electronic exchange and use of information. These include:

- Developing an annual strategic plan that reports on specific objectives, milestones, and metrics, including the use of an electronic health record for each person in the United States by 2014;
- Providing oversight and coordination of both the HIT Policy and HIT Standards Committees;
- Reporting to Congress within 12 months on any additional funding or authority needed to ensure full

Figure 2. Federal HIT Policy and Standards Process



Source: Manatt Health Solutions analysis of federal HITECH Act legislation.

*Nothing prohibits the National eHealth Collaborative (NeHC) from assuming these roles, so long as NeHC's charter, duties, and membership are changed to meet the provisions of the HITECH Act .

participation of stakeholders in the national health IT infrastructure; and

- Establishing a governance mechanism for the nationwide health information network.

HIT Policy Committee. This federal advisory committee is charged with making recommendations to the ONC with respect to a policy framework for the development of the nationwide health information infrastructure. Duties include making recommendations in a wide variety of areas, such as technologies that protect privacy of health information and the steps necessary to ensure the use of electronic health information to improve the quality of health care. The HIT Policy Committee will also recommend an order of priority for the development, harmonization, and recognition of standards, as well as implementation specifications and certification criteria for the electronic exchange and use of health information.

HIT Standards Committee. The HIT Standards Committee will recommend which standards are to be adopted, along with implementation specifications and certification criteria for the electronic exchange and use of health information. The Act does not specify how existing processes relating to standards development and

harmonization — through organizations like the Health Information Technology Standards Panel (HITSP), Certification Commission for Healthcare IT (CCHIT) and the National eHealth Collaborative (NeHC) — will fit into the new framework, though it does note that NeHC may modify its charter to perform the duties of either the HIT Standards or Policy Committee.

The federal policy framework provides the ONC and the Secretary of HHS broad authority to tie federal dollars to specific policies and standards developed to promote the Act's broad policy objective of designing, building, operating, and governing a nationwide health information infrastructure.

There are many issues left open by the HITECH Act, including which standards and technologies will be specified and the specific governance structure, administrative requirements, and contractual rules that will be developed to oversee the nationwide health information infrastructure. Most significantly, key definitions that will determine whether funds can be obtained — such as how health information exchange is defined and what it means to be a meaningful electronic health record (EHR) user — are left to the federal rule-making process.

Like all stakeholders who stand to benefit from the sizeable investment dollars made available through the Act, California has a keen interest in ensuring that federal policy develops in a manner that is consistent with and supports the state's unique characteristics and its own policy goals.

Recommendations for California

Recommendation 1. CHHSA and California's state-designated entity should ensure that the ONC's strategic plan supports California's policy objectives and existing users of health IT systems, and that the governance structure developed at the federal level recognizes the role of state-designated entities.

Recommendation 2. CHHSA and California's state-designated entity should ensure that states are represented and actively participate in the HIT Policy and Standards Committees. Specifically, California's representatives should ensure that the federal government emphasizes an incremental approach to standard setting that maximizes clinical benefit by enhancing the existing flow of available clinical data.

Recommendation 3. CHHSA and California's state-designated entity should develop and advance policy recommendations as to the amount of additional funding required to accomplish the health IT objectives of the HITECH Act.

Federal Privacy Framework

In addition to creating a new federal policy and standards-setting framework, the HITECH Act strengthens the privacy and security provisions of the Health Insurance Portability and Accountability Act (HIPAA) in five key areas. Many of these changes will have a direct impact on organizations participating in HIE projects in California.

Extension of HIPAA to business associates. The HITECH Act requires entities or individuals who have access to protected health information but do not provide direct medical care to comply with the HIPAA security rule provisions mandating the implementation of administrative, physical, and technical safeguards, as well as the restrictions on the use and disclosure of protected health information in the HIPAA privacy rule. These "business associates" may be subject to civil and criminal penalties for violating these requirements. Accordingly, health IT vendors, some of whom are already subject to the California's Confidentiality of Medical Information Act, will be directly regulated under HIPAA for the first time.

Security breach notification mandate. The HITECH Act establishes the first national data security breach notification law. The statute requires health care

providers, health plans, and other HIPAA covered entities, as well as personal health record vendors, to notify affected individuals, government agencies, and the media of the unauthorized acquisition of electronic, unencrypted protected health information. HIPAA now requires only that covered entities mitigate the potentially harmful effects of improper disclosures. The federal notification standards overlap with, but differ from, the standards established under California's breach notification law, which do not necessarily require notification to the individual and do not require media notification.

New restrictions on the use and disclosure of protected health information. The HITECH Act places new restrictions on certain uses and disclosures of protected health information. A covered entity will now be prohibited from receiving or paying remuneration for the disclosure of protected health information, except for disclosures for limited purposes, such as treatment, research, and fraud prevention. HHS is assigned responsibility for evaluating whether remuneration for these permitted disclosures should be capped. In addition, covered entities are prohibited from using protected health information to make communications to individuals about the covered entity's products or services if another party is paying for the communication, except in limited circumstances. For example, a pharmacy could not send out information about a new drug to its customers if a pharmaceutical company paid the pharmacy for the mailing.

Additional patient rights. The HITECH Act requires covered entities to honor a patient's request not to share information with the patient's health insurer if the patient is paying the full cost of the service. Covered entities maintaining electronic health records are required to give patients copies of such records in electronic form. They are also obligated, at a patient's request, to provide an audit trail of all disclosures of the patient's protected health information made for treatment, payment, and health care operations during the prior three years. This obligation is phased in over the next five years based on the date an electronic health record system is acquired by the entity.

Increased HIPAA enforcement. The HITECH Act establishes a tiered system of civil penalties based on the nature of the improper conduct. The maximum penalty is $500,000 per violation, up to $1.5 million per year for each type of violation. The maximum civil penalty is now $100 up to a limit of $25,000. HHS is required to impose civil penalties on a covered entity that engages in "willful neglect." State attorneys general are granted authority to enforce HIPAA. HHS is directed to evaluate how to enable affected individuals to share in penalties collected for violating HIPAA. The Act clarifies that criminal penalties may be imposed on any individual or organization, not just covered entities.

In summary, the Act creates new obligations on health care providers, health plans, technology companies, and personal health record vendors involved in electronic health information exchange in California. These obligations build on existing requirements imposed under California law. Organizations contemplating participation in electronic health information exchange are likely to be concerned about ensuring compliance with these complex rules, especially in areas where state and federal law overlap. Significant work will be done at the federal level to develop a regulatory framework and implement these new laws. California's residents will be best served by dedicated, active engagement in that process.

Recommendations for California

Recommendation 4. The Office of Health Information Integrity should disseminate technical guidance to all parties that engage in electronic information exchange to clarify the interplay between California and federal law, especially in light of recently enacted California health privacy legislation—specifically SB 541 (Alquist) and AB 211 (Jones)—and recommend best practices for facilitating legal compliance.

Recommendation 5. The Office of Health Information Integrity should take steps to educate patients, consumers, and the public on existing health privacy safeguards and protections intended to ensure the confidentiality and security of personal health information.

Recommendation 6. CHHSA and California's state-designated entity should develop statewide policy guidance setting forth privacy and security rules, protocols, and procedures for participation in qualified health information exchanges.

Medicare and Medi-Cal EHR Adoption Incentive Payments

The most significant funding opportunity in the HITECH Act for health information technology is incentive payments to induce providers—hospitals, clinics, physicians, dentists, nurse practitioners, nurse midwives, and physician assistants—who receive payments from Medicare and Medi-Cal to adopt and make meaningful use of electronic health records (Tables 1 and 2).

To obtain EHR adoption incentive investment funds, providers must demonstrate that they are meaningful EHR users and meet specific criteria related to the percent of patients they serve in either the Medicare or Medicaid program. Applicants must:

Table 1. Summary of Medicare Incentive Payment Provisions

Funding Mechanism	Entitlement
Funding Entity	Centers for Medicare and Medicaid Services (CMS)
Allocation Process	Reimbursement
Matching Funds Requirement	None
Timing	Begins in 2011
Funds Flow Through	Medicare carriers
Eligible Recipients	• Hospitals that are "meaningful users" of EHRs • Physicians who are "meaningful users" of EHRs (These professionals must choose to be reimbursed under Medicare or Medi-Cal terms. The two options are mutually exclusive.)
Level of Federal Funding	CBO has estimated outlays for the combined Medicare/Medicaid incentives to be approximately $34 billion over the fiscal years 2009 through 2016. The CBO also estimates net savings to the federal health entitlement programs beginning in fiscal year 2016, but it is not clear what the savings estimates assume. • Hospitals receive base funding of $2 million, plus additional funds based on formula prescribed in the statute. • Physicians may receive up to a maximum of $44,000 over five years; if reimbursement begins in 2013, the maximum amount is $42,000, with the largest incentives in the first year and declining annually via reductions in the Medicare fee schedule.
Requirements for Funding	Physicians receiving Medicare payments must demonstrate (through self-reporting or claims reporting) "meaningful EHR use," defined as: use of a certified EHR, including electronic prescribing, that is "connected" to an HIE, and submission of clinical quality and other required measures. All criteria must be met and reconfirmed each payment year. The HHS secretary has discretion in allowing alternative means for meeting requirements and can make requirements more stringent over time. Physicians who are employed or provide a significant percentage of care via Medicare Advantage (75 percent of professional services or at least 20 hours/week) are eligible for incentive funds, but are prohibited from duplicate payment (under fee-for-service and via Medicare Advantage).

- Show use of a certified EHR technology in a meaningful manner, which includes the use of electronic prescribing for office-based physicians;
- Show use of a certified EHR technology that is connected in a manner that provides for the electronic exchange of health information to improve the quality of health care; and
- Submit information on clinical quality and other measures as selected by the HHS secretary.

The CBO estimates payments of approximately $34 billion between federal fiscal years 2009 and 2016, with initial incentive payments commencing in 2011. The HITECH Act delineates that hospitals are eligible for a base funding amount of $2 million, plus additional amounts based on discharge data and patient stay data formulas. Independent physicians are eligible for up to $44,000 in incentive payments over five years; through Medicaid incentives, a physician can receive up to $64,000 over five years. Physicians must choose to be reimbursed under either Medicare or Medicaid.

California receives approximately 14 percent of federal Medicare and Medicaid spending. Therefore it is reasonable to assume that California's fair share of the Medicare and Medicaid incentive payments for EHR adoption will be greater than 10 percent of the

Table 2. Summary of Medi-Cal Incentive Payment Provisions

Funding Mechanism	Entitlement
Funding Entity	CMS and the state
Allocation Process	Reimbursement
Matching Funds Requirement	10 percent state match on administrative expenses, including the tracking of meaningful use, conducting oversight, and pursuing initiatives to encourage adoption; 100 percent federal match on incentive payments
Timing	Begins in 2011
Funds Flow Through	California Department of Health Care Services (DHCS)
Eligible Recipients	• Physicians, dentists, nurse practitioners, nurse midwives, and physician's assistants practicing in specific circumstances, who are not hospital-based and have at least 30 percent of patient volume attributable to Medi-Cal beneficiaries • Pediatricians who are not hospital based and have at least 20 percent of patient volume attributable to Medi-Cal beneficiaries • Acute care hospitals that have at least 10 percent of patient volume attributable to Medi-Cal beneficiaries • Children's hospitals • FQHC or rural clinics that have at least 30 percent of patient volume attributable to "needy individuals," including but not limited to Medi-Cal beneficiaries • Third-party entities that sponsor and encourage EHR adoption can also qualify for funding through the Medicaid incentive payment structures. Such entities are likely to serve as de facto purchasing and implementation agents; Medicaid incentive payments for physicians who participate in such arrangement would flow to the third party. It appears a third party must demonstrate that 95 percent of the funding will be used to purchase, operate, and maintain the EHR for independent physicians, and is allowed to keep 5 percent of the funding to cover any overhead it incurs in doing so.
Level of Federal Funding	The CBO has estimated outlays for the combined Medicare/Medicaid incentives to be approximately $34 billion over the federal fiscal years 2009 through 2016. It also projects net savings to the federal health entitlement programs beginning in fiscal year 2016, but it is not clear what the savings projections assume.
Requirements for Funding	Demonstrated use of certified EHR technology connected in a way that provides for health information exchange; compliance with reporting requirements

$34 billion outlay for this purpose, producing a total of more than $3 billion in incentive payments in California, depending on adoption rates.

Recommendations for California

Recommendation 7. CHHSA and California's state-designated entity should engage with the Secretary of HHS, the National Association of State Medicaid Directors (NASMD), the ONC, and others to ensure that the definition of meaningful EHR user incorporates two key concepts: (1) robust HIE requirements that allow for exchange of a clinical record summary and single and uniform interfaces from significant data sources, such as labs and pharmacies; and (2) strong clinical quality measures.

Recommendation 8. CHHSA and California's state-designated entity should engage with the federal Secretary of HHS to encourage the development of appropriate alternative means of demonstrating meaningful EHR use for physicians who are in a group practice and provide services to Medicare or Medi-Cal recipients.

Recommendation 9. The Department of Health Care Services (DHCS) should ensure that requirements defined for the current Medi-Cal Management Information System (MMIS) fiscal intermediary procurement include: (1) the ability to share information bidirectionally through a California Health Information Exchange; and (2) the delineation and implementation of new requirements necessary to meet the reporting, payment, and other requirements of the HITECH Act.

Recommendation 10. DHCS should report annually to the legislature on the number of Medi-Cal providers who have adopted EHRs, as well as any challenges that would need to be overcome to support further adoption.

Infrastructure Investments

The HITECH Act includes $2 billion in investments to be made by HHS through grants, loans, and demonstration programs that are consistent with a strategic plan developed by the ONC. The HHS secretary is given wide discretion in allocating these funds. Authorized areas of investment include:

- Funding to strengthen the health information technology infrastructure;
- Health information technology implementation assistance;
- State grants to promote health information technology;
- Grants for the development of loan programs to facilitate the widespread adoption of certified EHR technology;
- Demonstration programs to integrate information technology into clinical education and assistance to establish or expand medical health informatics education programs.

The following are brief summaries of the specific areas of funding and recommendations for maximizing the impact these funds could have on California's health care.

Health Information Exchange Planning and Implementation Grants

The HITECH Act authorizes ONC to award grants to states and qualified state-designated entities to develop and implement programs for HIE. States and state-designated entities will be eligible for either planning or implementation grants. Planning grants are intended to jump-start HIE projects where actual implementation has yet to begin. Larger implementation grants will go to states in which HIE activities are well underway or to states that have detailed plans in place that can be put into action.

It is important that the State of California focus its efforts to steer the incentive payments to California Medicare and Medi-Cal providers and take steps to ensure that these providers can qualify as meaningful EHR users and connect in a manner that provides for the electronic exchange of health information.

California is well-positioned to compete for implementation funds, given the many public and commercial health information technology initiatives currently underway throughout the state. Table 3 summarizes the main elements of the requirements for the planning and implementation grants.

Recommendations for California

The following recommendations are consistent with the California's Health IT Financing Advisory Commission's recommendation that the state create a public-private partnership to catalyze statewide collaboration.

Recommendation 11. The governor should appoint a Deputy Secretary of Health IT within the California Health and Human Services Agency to coordinate and drive health IT and HIE implementation. It is crucial that CHHSA play a leadership role in facilitating a comprehensive HIE strategy, which is a foundational requirement for obtaining HITECH Act funds and a key to ensuring that investments in health IT care are used to improve the quality, safety, and efficiency of health care service to California residents.

Recommendation 12. The state should take such actions as necessary to select a qualified state-designated entity to apply for the HIE implementation funding made available under the HITECH Act. Criteria used in selecting this new state-designated entity should include a public-private governance structure that can inform federal policymaking and guide state policy through a transparent statewide collaboration process. Policy guidance shall include well-defined technical architecture plans and clinical requirements that allow for regional market governance and innovation, as well as policies and procedures related to privacy and security to protect the flow of patient information.

Table 3. HIE Planning and Implementation Grants

Funding Mechanism	Federal appropriations
Funding Entity	The Federal Department of Health and Human Services, through the Office of the National Coordinator (ONC)
Allocation Process	Competitive grant process. Details will emerge from the regulatory process.
Matching Funds Requirement	State matching funds may be required in federal fiscal years 2009 and 2010 (and will be required in 2011). The statute notes that matching funds may be in-kind, but does not provide further detail.
Timing	Funds are available upon the delivery of ONC's strategic plan to Congress, due within 90 days of passage of the bill.
Funds Flow Through	ONC
Eligible Recipients	States or state-designated entities. To be considered a state-designated entity, an organization must be formally designated by the state, be nonprofit, and be committed to improving health care quality and efficiency through HIE, among other requirements set out in the statute.
Level of Federal Funding	To be determined
Requirements for Funding	Grants must be used to support HIE planning or implementation. Minimal criteria to receive the larger implementation grants are likely to include operational governance, a technical plan, well-defined clinical use cases, and statewide privacy and security policy guidance.

Recommendation 13. CHHSA and California's state-designated entity should develop and advance policy recommendations regarding the amount of additional funding required to accomplish the health IT objectives of the HITECH Act, as well as key requirements for obtaining the funds already made available under the Act.

Electronic Health Record (EHR) Loan Fund

Many health care providers — most notably rural and public hospitals, community health centers, and small group and individuals physician offices — face significant economic challenges and barriers in obtaining capital for purchasing EHR systems. The HITECH Act includes grant funding to states for use in providing loans to providers for EHR adoption, as summarized in Table 4.

Recommendations for California

Recommendation 14. The State of California should apply for federal funds to create a revolving loan fund that incorporates multiple programs for a broad range of providers. The program should: (1) consider how best to construct eligibility requirements and prioritize least-advantaged providers; (2) incorporate and coordinate existing loan fund sources and account for any specific eligibility requirements; and, (3) develop payment terms that recognize forthcoming Medicare and Medi-Cal incentive payments.

Recommendation 15. Loans made through the EHR loan programs should be directly tied to federal and state requirements, including the purchase and installation of certified EHRs that enable providers to meet the Act's meaningful use requirement, support for state quality and public health goals, and the reporting of performance measures. In addition, loan requirements should provide for adequate support and, if appropriate, steer select providers towards purchasing EHR software and services through technical service organizations.

Table 4. EHR Loan Fund

Funding Mechanism	Federal appropriations
Funding Entity	The federal Department of Health and Human Services, through the Office of the National Coordinator (ONC)
Allocation Process	Competitive grant process
Matching Funds Requirement	States or Indian tribes must provide a cash match equal to $1 in state funds for every $5 in federal funds. States may couple their grants with private sector contributions in an attempt to increase the amount of loan funding they can offer providers.
Timing	ONC may not award grants prior to January 1, 2010.
Funds Flow Through	ONC to states or Indian tribes, which are to use the grants to provide loans to health care providers for EHR adoption.
Eligible Recipients	States or Indian tribes
Level of Federal Funding	To be determined
Requirements for Funding	Loan funds may be used by providers to: (1) facilitate the purchase of certified EHR technology; (2) enhance the utilization of certified EHR technology (which may include costs associated with upgrading health information technology so that it meets criteria necessary to be a certified EHR technology;(3) train personnel in the use of such technology; or (4) improve the secure electronic exchange of health information. The state must create an annual strategic plan that: identifies the projects to be assisted through the loan fund; describes the criteria and methods established for the distribution of funds from the loan fund; describes the financial status of the loan; and specifies the short-term and long-term goals of the fund.

Health Information Technology Regional Extension Centers

The HITECH Act recognizes that effective adoption and use of EHRs represents a significant challenge. As a result, the Act directs the Secretary of HHS, through the ONC, to establish a new national entity within HHS, the Health Information Technology Research Center (HITRC), and to establish Health Information Technology Regional Extension Centers (RECs) to provide technical assistance, disseminate best practices, and assist with implementations at the local level.

Specifically, the Regional Extension Centers are charged with providing technical and change-management assistance to health care providers in adopting and using EHRs. They are to provide services to all providers in a region, but must prioritize assistance to public, nonprofit, and critical access hospitals; federally qualified health centers (FQHCs); rural or other providers that serve uninsured, underinsured, or medically underserved patients; and individual or small group practices. Table 5 summarizes the key elements of the Health IT Regional Extension Center grants.

Recommendations for California

Recommendation 16. CHHSA should engage with the federal HHS secretary, National Association of State Medicaid Directors (NASMD), the ONC, and others to ensure that there is a substantive state role in selecting, designating, and evaluating Regional Extension Centers (RECs). The RECs must accommodate a broad range of providers in the state and prioritize those providers that serve California's underserved.

Recommendation 17. CHHSA should define a set of eligibility requirements and performance criteria to operate as a REC in California and partner only with those entities that meet state requirements to apply for federal funds. At a minimum, the eligibility requirements should include extensive experience in successful EHR adoption and use, established relationships among safety-net providers, and the capability to support health information exchange.

Recommendation 18. In coordination with the Health IT Financing Advisory Commission, CHHSA should develop partnerships with public and private organizations to meet the federal requirement for matching funds. The state should consider using matching funds to meet state criteria and ensure coordination among the RECs.

Table 5: Health IT Regional Extension Centers

Funding Mechanism	Federal appropriations
Funding Entity	The federal Department of Health and Human Services, through the Office of the National Coordinator (ONC)
Allocation Process	To be determined
Matching Funds Requirement	ONC may not provide more than 50 percent of the capital and annual operating and maintenance funds required to create and operate a Regional Extension Center. ONC may provide such funding for no longer than four years.
Timing	2009 to 2011
Funds Flow Through	ONC
Eligible Recipients	Nonprofits, likely to be broad array of competing applicants
Level of Federal Funding	To be determined
Requirements for Funding	To be determined

Workforce Training Grants

The effective use of health information technology requires a team, and while physicians may provide the clinical oversight for patient care, its delivery depends on nurses, medical assistants, front office staff, and other clinical providers (such as nutritionists, behaviorists, and social workers). In order for electronic health record systems to fully support this team, its members must all have basic IT literacy, an understanding of state privacy laws and Health Insurance Portability and Accountability Act (HIPAA) requirements, and the ability to make effective use of the EHR as part of their workflow. There is a shortage of qualified allied health professionals in California, as well as a national shortage of health workers with IT literacy.

Table 6 summarizes the key elements of Workforce Training Grants. The recommendations below are based on California's extensive and diverse higher education systems and build upon existing programs in medical informatics at Stanford University, the University of California, Davis, and the University of California, San Francisco.

Recommendations for California

Recommendation 19. The governor should direct the California Nurse Education Initiative to evaluate how to apply for available funds and expand current programs to include allied health professionals and the integration of EHR and other technologies into existing training programs.

Recommendation 20. The Community College Chancellor's Office should apply for funds to enhance community college IT literacy programs with health-specific training for allied health professionals.

Recommendation 21. The University of California Office of the President should apply for funds to incorporate EHRs into previously planned expansions in UC medical schools and teach EHR core competencies as defined by the American Medical Informatics Association and the American Health Information Management Association.

Table 6. Workforce Training Grants

Funding Mechanism	Federal appropriations
Funding Entity	The federal Department of Health and Human Services (HHS), in consultation with National Science Foundation (NSF)
Allocation Process	Two types of competitive grants: (1) To colleges and institutions of higher education to expand medical health informatics programs, and (2) to medical schools to integrate EHRs into curricula.
Matching Funds Requirement	Requires 50 percent match (would only affect the state when the applicant is a University of California or state university campus, or a community college); match may be reduced with demonstrated economic conditions that render the cost-share requirement "detrimental to the program."
Timing	To be determined
Funds Flow Through	HHS grant programs; identity of granting agency not yet clear
Eligible Recipients	• Institutions of higher education • Graduate health professional schools or programs (including medicine, osteopathy, nursing, dentistry, pharmacy, behavioral/mental health, or physician assistance studies)
Level of Federal Funding	To be determined
Requirements for Funding	Priority to existing education/training programs and those designed to be completed in less than six months.

New Technology Research and Development Grants

The HITECH Act encourages the development of new health information technologies by establishing Health Care Information Enterprise Integration Research Centers. The goal is to generate innovative approaches to enterprise integration by conducting "cutting-edge" research, including: interfaces between human information and communications technology systems; voice-recognition systems; software that improves interoperability and connectivity among health information systems; software dependability in systems that are essential for care delivery; health information enterprise management; health information technology security and integrity; and measurement of the impact of information technologies on the quality and productivity of health care. Key elements are summarized in Table 7.

Recommendation for California

Recommendation 22. The governor should create an inter-disciplinary task force to recommend the composition, location, and funding strategy for one or more Health Care Information Enterprise Integration Research Centers. The task force should consider how these centers would complement current public and private sector research efforts. The task force should include representation from University of California, California State University, federal laboratories, and existing California-based research collaboratives such as CITRIS (Center for Information Technology Research in the Interest of Society), QB3 (CA Institute for Quantitative Biosciences), CNSI (CA Nanosystems Institute), and CalIT2 (CA Institute for Telecommunications and Information Technology).

Broadband Technology Opportunities Program

In addition to the HITECH Act, the ARRA instructs the Assistant Secretary of Commerce for Communications and Information, in consultation with the Federal Communications Commission (FCC), to establish a national broadband service development and expansion program, referred to as the Broadband Technology Opportunities Program. The program is designed to complement and enhance, not conflict with, other federal broadband initiatives and programs. Key elements are summarized in Table 8.

Recommendations for California

These recommendations take into account the important foundation of broadband access among California's providers made possible through the FCC Rural Health

Table 7. New Technology Research and Development Grants

Funding Mechanism	Federal appropriations
Funding Entity	National Institute of Standards and Technology (NIST) in consultation with National Science Foundation (NSF)
Allocation Process	Competitive grants
Matching Funds Requirement	50 percent from third parties, not necessarily states
Timing	To be determined
Funds Flow Through	NIST in consultation with NSF
Eligible Recipients	Higher education institutions and/or federal government laboratories
Level of Federal Funding	To be determined
Requirements for Funding	Eligible entities include institutions of higher education, or consortia thereof, which may include nonprofit entities and federal government laboratories; grants are designed to fund up to 50 percent of the total cost of the project.

Table 8. Summary of Funding Requirements for Broadband Opportunity Program

Funding Mechanism	Federal appropriations
Funding Entity	Department of Commerce in conjunction with the Federal Communications Commission
Allocation Process	Competitive grants
Matching Funds Requirement	Federal share may not exceed 80 percent (unless a waiver is obtained)
Timing	All awards made by the end of FY 2010; projects must be completed within two years of the award.
Funds Flow Through	Department of Commerce or designated grantor
Eligible Recipients	State government; nonprofit organization (corporation, foundation, association or institution); or any other entity, including a broadband service provider, that the grantor deems to be working in the public interest.
Level of Federal Funding	Not less than $250,000,000
Requirements for Funding	To be determined as RFP/grant process is defined

Care Pilot Program. More than 700 California sites qualified for the program's broadband subsidies, and it is expected that these sites will be connected as early as late summer 2009. Complementary support for network operations, monitoring, and site implementation and training through the Broadband Technology Opportunities Program would allow California to move much more quickly to establish a robust, sustainable network.

Recommendation 23. The California Telehealth Network (CTN) should apply for funds to complement the FCC award under the rural broadband access program; this application should be made a priority by CTN member organizations and the state.

Recommendation 24. CHHSA and CTN should encourage health care providers participating in the CTN to identify support needs and apply for appropriate funding.

Authors

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About the Foundation

The California HealthCare Foundation is an independent philanthropy committed to improving the way health care is delivered and financed in California. By promoting innovations in care and broader access to information, our goal is to ensure that all Californians can get the care they need, when they need it, at a price they can afford. For more information, visit **www.chcf.org**.

A Focus on Health Information Technology

For the past ten years CHCF has worked to accelerate the adoption and effective use of new information technologies in health care. One emphasis has been to assist public and private health care organizations realize the potential of the Internet for improving clinical care and business practices through better communication and access to information.

THIS WORK HAS INCLUDED:

- Designing, building, and promoting the adoption of applications that streamline enrollment processes and improve access to care.
- Developing and implementing data standards and automated information processes that support improvements in care delivery for people with chronic diseases.
- Promoting policy and practice improvements to protect the privacy and security of personal health information.
- Developing a prototype for secure community-wide health information sharing.
- Promoting the use of electronic health records and supporting Pay for Performance as one mechanism to better align financial incentives for care improvements.
- Supporting the development and prototyping of a consumer-focused personal health record to securely access and control health care information by making it more portable.
- Researching and reporting on new developments and trends in the use of Internet and other information technologies to improve the quality and safety of care.
- Publication of iHealthBeat, a free daily digest reporting on technology's impact on health care

Glossary

American Recovery and Reinvestment Act of 2009 (ARRA): a $787.2 billion stimulus measure, signed by President Obama on February 17, 2009, that provides aid to states and cities, funding for transportation and infrastructure projects, expansion of the Medicaid program to cover more unemployed workers, health IT funding, and personal and business tax breaks, among other provisions designed to "stimulate" the economy.

California Department of Health Care Services (DHCS): the Department within the California Health and Human Services Agency that finances and administers Medi-Cal, the California Children's Services program, the Child Health and Disability Prevention program, and the Genetically Handicapped Persons Program.

California Health and Human Services Agency (CHHSA): the state-level agency that administers the state's programs for health care, social services, public assistance, and rehabilitation.

California Health Information Technology Finance Advisory Commission: established by Governor Schwarzenegger to determine the extent to which limited access to capital impedes the adoption and implementation of health IT in various health care sectors in California.

California Institute for Quantitative Biosciences (QB3): a cooperative effort among three campuses of the University of California and private industry designed to harness the quantitative sciences to integrate understanding of biological systems at all levels of complexity—from atoms and protein molecules to cells, tissues, organs, and the entire organism.

California Institute for Telecommunications and Information Technology (Calit2): a program of the University of California that builds horizontal links among departments to foster multidisciplinary studies; creates research teams consisting of members who can be located anywhere because of the Internet; supports involvement by faculty, students, industry, government, and community partners; enables prototyping in Calit2 "living laboratories"; and provides technical professionals as the bridge between academia and industry.

California NanoSystems Institute (CNSI): a research center at UCLA whose mission is to encourage university collaboration with industry and to enable the rapid commercialization of discoveries in nanosystems.

California Telehealth Network (CTN): a coalition of health care and technology stakeholders that is working to increase access to acute, primary, and preventive health care in rural California and is responsible for administering $22.1 million in funding obtained from the Federal Communications Commission to promote telehealth.

Center for Information Technology Research in the Interest of Society (CITRIS): a multidisciplinary research institute that facilitates partnerships and collaborations among more than 300 faculty members and thousands of students from numerous departments at four UC campuses (Berkeley, Davis, Merced, and Santa Cruz) with industrial researchers from over 60 corporations. CITRIS performs extensive research in information technology, from monitoring the environment and finding viable, sustainable energy alternatives to simplifying health care delivery and developing secure systems for electronic medical records and remote diagnosis.

Centers for Medicare and Medicaid Services (CMS): a federal agency within the United States Department of Health and Human Services that administers the Medicare program and works in partnership with state governments to administer Medicaid, the State Children's

Health Insurance Program (SCHIP), and health insurance portability standards.

Certification Commission for Healthcare IT (CCHIT): a recognized certification body (RCB) for electronic health records and their networks, CCHIT is an independent, voluntary, private-sector initiative, established by the American Health Information Management Association (AHIMA), the Healthcare Information and Management Systems Society (HIMSS), and The National Alliance for Health Information Technology.

Congressional Budget Office (CBO): a congressional agency whose mandate is to provide Congress with objective, nonpartisan, and timely analyses to aid in economic and budgetary decisions on the wide array of programs covered by the federal budget, and the information and estimates required for the Congressional budget process.

Federal Communications Commission (FCC): the United States government agency charged with regulating interstate and international communications by radio, television, wire, satellite, and cable.

Federal Financial Participation (FFP): the percentage of EHR adoption incentive funding set out in the stimulus package that will be provided by the federal government (as opposed to states) under the Medicaid program.

Federally Qualified Health Centers (FQHCs): safety-net providers such as community health centers, public housing centers, outpatient health programs funded by the Indian Health Service, and programs serving migrants and the homeless. FQHCs provide their services to all people regardless of ability to pay, and charge for services on a community board approved sliding-fee scale that is based on patients' family income and size. FQHCs are funded by the federal government under Section 330 of the Public Health Service Act.

Health Information Exchange (HIE): as defined by the Office of the National Coordinator and the National Alliance for Health Information Technology (NAHIT), Health Information Exchange means the electronic movement of health-related information among organizations according to nationally recognized standards.

Health Information Technology (HIT): as defined in the ARRA, Health Information Technology means hardware, software, integrated technologies or related licenses, intellectual property, upgrades, or packaged solutions sold as services that are designed for or support the use by health care entities or patients for the electronic creation, maintenance, access, or exchange of health information.

Health Information Technology for Economic and Clinical Health (HITECH) Act: collectively refers to the health information technology provisions included at Title XIII of Division A and Title IV of Division B of the ARRA.

Health Information Technology Research Center (HITRC): as set out in the ARRA, the Health Information Technology Research Center will be created by the Office of the National Coordinator to provide technical assistance and develop or recognize best practices to support and accelerate efforts by health care providers to adopt, implement, and effectively use health information technology that allows for the electronic exchange of information.

[Health Information Technology] Regional Extension Centers (RECs): as set out in the ARRA, Health Information Technology Regional Extension Centers will be created by ONC to provide technical assistance and disseminate best practices and other information learned

from the Health Information Technology Research Center to aid health care providers with the adoption of health information technology.

Health Information Technology Standards Panel (HITSP): a cooperative partnership between the public and private sectors formed for the purpose of harmonizing and integrating standards that will meet clinical and business needs for sharing information among organizations and systems.

Health Insurance Portability and Accountability Act (HIPAA): enacted by Congress in 1996. Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, known as the administrative simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers. The AS provisions also address the security and privacy of health data. The standards are meant to improve the efficiency and effectiveness of the nation's health care system by encouraging the widespread use of electronic data interchange.

Meaningful EHR User: as set out in the ARRA, a meaningful EHR user meets the following requirements: use of a certified EHR technology in a meaningful manner, which includes the use of electronic prescribing; use of a certified EHR technology that is connected in a manner that provides for the electronic exchange of health information to improve the quality of health care; and use of a certified EHR technology to submit information on clinical quality and other measures as selected by the Secretary of HHS.

Medicare Advantage Plans: health plans offered by private companies that contract with Medicare to provide beneficiaries with Medicare Part A and Part B benefits. Medicare Advantage Plans are HMOs, PPOs, or private fee-for-service plans.

Medicare Fee-for-Service (FFS): Medicare's traditional benefit option, under which beneficiaries may obtain care from any licensed provider willing to accept Medicare patients.

Medi-Cal's Medicaid Management Information System (MMIS): the fiscal intermediary which is used to process over 220 million health care claims a year.

National Association of State Medicaid Directors (NASMD): a bipartisan, professional, nonprofit organization of representatives of state Medicaid agencies (including the District of Columbia and the territories). The primary purpose of NASMD is to serve as a focal point of communication between the states and the federal government and to provide an information network among the states on issues pertinent to the Medicaid program.

National eHealth Collaborative (NeHC): a public-private partnership (formerly AHIC Successor, Inc.) driving the development of a secure, interoperable, nationwide health information system. The National eHealth Collaborative was founded in 2008 to build on the accomplishments of the American Health Information Community (AHIC).

National Institute of Standards and Technology (NIST): the non-regulatory federal agency within the United States Department of Commerce whose mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology. NIST oversees the NIST Laboratories, the Baldrige National Quality Program, the Hollings Manufacturing Extension Partnership, and the Technology Innovation Program.

National Science Foundation (NSF): an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense…,"

NSF is the funding source for approximately 20 percent of all federally supported basic research conducted by America's colleges and universities, including mathematics, computer science, and the social sciences.

Nationwide Health Information Network (NHIN): is envisioned by ONC to serve as a secure, nationwide, interoperable health information infrastructure that will connect providers, consumers, and others involved in supporting health and health care.

Office of the National Coordinator (ONC): serves as principal advisor to the Secretary of HHS on the development, application, and use of health information technology; coordinates HHS's health information technology policies and programs internally and with other relevant executive branch agencies; develops, maintains, and directs the implementation of HHS' strategic plan to guide the nationwide implementation of interoperable health information technology in both the public and private health care sectors, to the extent permitted by law; and provides comments and advice at the request of OMB regarding specific federal health information technology programs. ONC was established within the Office of the Secretary of HHS in 2004 by Executive Order 13335.

Qualified Electronic Health Record (EHR): as defined in the ARRA, a qualified electronic health record (EHR) means an electronic record of health-related information on an individual that includes patient demographic and clinical health information, such as medical histories and problem lists, and has the capacity to: provide clinical decision support; support physician order entry; capture and query information relevant to health care quality; and exchange electronic health information with, and integrate such information from, other sources.

Qualified State-Designated Entities (SDEs): as defined in the ARRA, [Qualified] state-designated entities (SDEs) shall be designated by a state as eligible to receive grants under Section 3013 of the ARRA; be a nonprofit entity with broad stakeholder representation on its governing board; demonstrate that one of its principal goals is to use information technology to improve health care quality and efficiency through the authorized and secure electronic exchange and use of health information; adopt nondiscrimination and conflict of interest policies that demonstrate a commitment to open, fair, and nondiscriminatory participation by stakeholders; and conform to other requirements as specified by HHS.

U.S. Department of Health and Human Services (HHS): the federal government agency responsible for protecting the health of all Americans and providing essential human services. HHS, through CMS, administers the Medicare (health insurance for elderly and disabled Americans) and Medicaid (health insurance for low-income people) programs, among others.