



California Can Lead the Way in Health Information Technology

Recommendations to Governor Schwarzenegger's eHealth Action Forum

Health IT Can Help Ease Health Care Crisis

The State of California and the United States as a whole are facing a health care crisis. While this is not new news, the facts remain sobering: Costs are spiraling out of control—health care inflation in 2004 was almost 8 percent, or two-and-a-half times the general rate of inflation. Health care quality is highly variable and inconsistent, with more Americans dying each year from preventable medical errors than from AIDS or breast cancer. A growing number of Americans have limited access to the health care system—and more than 46 million Americans, or almost 16 percent of the population—have no health insurance.

The good news is that something can now be done about this crisis. There is mounting and substantial evidence that intelligent investment in health information technology (IT) can help transform health care from today's inefficient, error-plagued, paper-based system to a better-connected and more efficient electronic system—one that can reduce waste, curb an epidemic of medical errors, and help rein in costs.

Governor Schwarzenegger has recognized the potential of health IT. In July 2006 he issued Executive Order S-12-06, calling for a statewide eHealth Action Forum that will lead to the development of a comprehensive state policy agenda for health IT.

Responding to the Governor's Call to Action

The voices urging the nation's health care system to replace its outdated, paper-based information systems have grown more urgent and more unified. President Bush, the governors of many states, the Institute of Medicine, the United States Government Accountability Office, and the Leapfrog Group—a coalition of 150 large employers—among many others, have called for significant investment in an “interoperable health information infrastructure.”

As the Institute of Medicine concluded: “In the 20th century, bricks and mortar constituted the basic infrastructure of the health care delivery system. To deliver care in the 21st century, the system must have a health information and communications technology infrastructure that is accessible to all patients and providers.”

The case for investment in health IT is compelling at the most basic level: Nationwide access to electronic health information will allow doctors and patients to make better-informed medical decisions, avoid errors, and reduce the enormous waste from redundant tests and procedures. A recent study in the *New England Journal of Medicine* found that almost half of all medical care in the United States is inappropriate.

More effective use of health IT will help address these basic problems in the way American medicine is practiced. When more complete

information about a patient is available at the time that patient is seen by a physician, especially if it is coupled with systems to remind the physician of guidelines for quality of care and to check for adverse drug interactions, the patient is more likely to receive better, more appropriate care. Furthermore, patients, families, and employers benefit because more appropriate care can help avoid unnecessary emergency room visits, hospitalizations, and extended nursing home stays.

As Governor Schwarzenegger has recognized, the question is not whether, but how, the State of California should invest in health IT.

Levers for Change

This issue brief focuses on the how. Recognizing that the State of California cannot solve this problem by acting alone, it must also exercise its leadership to stimulate coordinated action by the public and private sectors.

Based on ten years of research and experience in the field, the California HealthCare Foundation (CHCF) has outlined ten recommendations to achieve the governor's vision. CHCF has identified six key leverage points in the application of health care IT that will help bring about these recommendations:

- Empower California's **consumers** with information about their health care providers, health insurers, and their own personal health care, putting in place stringent safeguards to ensure privacy and confidentiality;
- Equip **providers**, especially those who care for underserved populations, with effective and affordable health IT tools to improve performance and efficiency of clinical care;
- Educate and expand California's health care **workforce** in the use of IT;
- Build a robust **infrastructure** that will keep Californians safe in the event of an emergency and serve as a foundation for transforming health care;
- Provide **leadership** that will coordinate the health IT activities of the state's many departments and programs and align public and private sector actions; and
- Support **investments** that recognize the social good that can come from targeted applications of health IT.

The recommendations that follow, which span all six leverage points, are intended to be comprehensive, but not exhaustive. They are meant, along with the many other good ideas that will emerge in the governor's eHealth Action Forum, to contribute to the state's strategy for action. Although CHCF's recommendations focus largely on health IT, it is essential to remember that health IT is not an end in itself. It is a means to transform health care in California, a means to improve quality, to enhance access, to empower patients, and to lower costs.

California has a global reputation for technology invention and innovation. Now is the time to apply that creativity to improve health care for all Californians.

To read Governor Schwarzenegger's Executive Order go to:

<http://gov.ca.gov/index.php?/executive-order/2616>.

Ten Key Recommendations

RECOMMENDATION 1: Support the right of Californians to securely access and control their personal health information.

Adopt policy and legal changes to ensure consumers have access to and control over their personal health information. Define the obligations of providers, payers, and other stakeholders to provide Californians with electronic access to portable, secure, and affordable personal health information. Californians should have the right to store their own information directly, or with a custodian of their choice, based on their interests and preferences.

A 2005 CHCF-sponsored national survey of consumer attitudes about health privacy found that 67 percent of Americans remain concerned about the privacy of their personal health information, are largely unaware of their rights, and are putting their health at risk with such behaviors as avoiding their regular doctor or forgoing needed tests. The survey also found that a majority of consumers harbor concerns that their employer will use their medical information to limit job opportunities. Despite these concerns, the survey revealed that consumers had a favorable view of health information technology and were willing to share their personal health data when it offered a benefit, such as improving the coordination or safety of their care.

Policy, law, and consumer attitudes about sharing electronic health information all have developed in a world where most personal health information is collected, used, stored, and disclosed either by the health care providers responsible for treating a patient or by the health plan insurers responsible for paying for a patient's care. For the most part laws restrict what can and cannot be shared and the terms by which sharing can take place. With the emergence of electronic health information systems, there is a

significant opportunity to change the paradigm of who controls decisions about how health information is used. The model could migrate from a provider- or payer-centric perspective, where the emphasis is on restraining unauthorized use and disclosure of information, to a consumer-centric perspective where the emphasis is on empowering consumers to have access to their own information and to be able to control who sees it for what purpose.

To make this paradigm shift California must create a legal and policy environment that supports the right of consumers to control the use of their personal health information. This will mean rethinking and affirmatively encouraging (perhaps even requiring) providers and insurers to provide consumers with affordable, easy, and timely access to their personal health information. Most people's health information today resides in multiple places—a variety of doctors' offices, hospitals, and insurers. Policies and programs that assist consumers in obtaining their personal health information from multiple sources, storing it safely and securely, and then directing its use, would return control to consumers.

A number of significant challenges must be addressed with respect to the privacy and security of health information. First and foremost, consumers need to be better educated on the benefits that could result from having easy access to complete medical information for themselves, their doctors, and their caregivers. Second, policies and laws must be put in place that support the secure exchange of information and maximize the consumer's control over it. Third, policies and practices must be developed and implemented that make consumer privacy and access rules meaningful and enforceable.

Consumer engagement is critical to achieving change. When Californians have the capacity to demand that a fundamental condition of what constitutes quality of care is access to and control over their personal health

information, the market for electronic information will accelerate.

The state could pursue this recommendation in a variety of ways. The most aggressive stance would be to develop requirements that support the right of consumers to collect, store, and use personal health information in any manner they direct. Another approach would be to develop statewide, voluntary certification criteria and a process for entities that agree to act as custodians of consumers' personal health information. In either case, a commitment to broad-scale consumer education about the value of portable health information is essential to engage Californians in taking a more active role in managing their health.

RECOMMENDATION 2: Provide Californians with easy-to-understand, comparative information about health care quality and cost.

Expand existing public and private efforts to provide consumers access to the information they need to make informed decisions about their health care providers and health plans. This is feasible only if health care information is collected, stored, and analyzed electronically. Use the purchasing power of the state to create incentives for providers and health plans to provide this information, and report their degree of participation to Californians.

Comparative, standardized information about quality of care enhances consumer knowledge about providers and stimulates provider attention to quality performance. This information should build on existing public and private electronic information sources.

A recent review of the health care IT landscape found that California has been a leader in advancing performance measurement, public reporting, and information technology initiatives at every level of health care delivery: plan, hospital, medical group,

and physician. Despite an excellent start, significant work remains to be done. Too often, the information systems used in clinical care delivery run in parallel to and are unconnected from those used to measure the performance of care delivery. Performance information is often incomplete, not well presented, and difficult to interpret. More than 25 federal, state, and voluntary organizations are involved in some aspect of public reporting, making this reporting structure confusing and costly. Concerns about liability further limit provider participation. Justifiably, providers and insurers often are reluctant to participate in multiple, often conflicting, efforts.

Research confirms that public reporting increases provider awareness about, and attention to, quality measurement and performance. Equally important to purchasers (including patients) is price and insurer performance data. Determining and reporting the relationship between quality and price in order to aid consumer decisionmaking will ultimately create support for pay-for-performance initiatives. Sophisticated measures of value will depend upon achieving transparency in reporting quality and price.

Producing good information is only half the battle. Consumer understanding, and use, of existing information is highly variable and must be improved for the health care marketplace to take notice. There are signs of progress. A growing number of consumers are using available information to assist their decisions in choosing an insurer or a provider. This is particularly true for decisions about care that are not urgent. But much more work in the consumer education arena needs to be done.

California should take a number of important steps to strengthen consumer access to health care quality and cost information. The state should take action to reconcile and simplify the many disparate reporting requirements; collaborate with federal regulators to ensure that safe harbors are created to enable

disclosure and interoperability; use its purchasing power through Medi-Cal, CalPERS, and other programs to insist upon effective public reporting of quality, price, and value; and finally, require that OSHPD and other state agencies that collect, but do not promptly report, clinical performance information report on a more timely basis. These actions should be complemented by education programs to guide consumer decisionmaking. Among other things, consumers need to know whether providers and insurers are taking the necessary health IT steps to implement effective electronic reporting.

RECOMMENDATION 3: Close the health IT gap for community clinics, small physician practices, and rural health centers.

Provide coordinated public and private incentives and subsidies to equip these providers with the same capabilities available at large, urban practices. Accelerate the adoption of certified electronic health records (EHRs), ensure interoperability of software applications, and promote participation in community-wide health information exchange initiatives to improve care for low-income populations.

Despite the benefits of EHRs to patient care, health status, error prevention, and care coordination, their adoption rate in the United States is extremely low. A recent Commonwealth Fund survey reports that 25 to 50 percent of large, well-funded, academic hospitals or integrated delivery systems are using EHRs, as are 57 percent of large physician practices with 50 or more physicians. In contrast, only 13 percent of solo practices and community clinics—where the majority of Americans get their day-to-day health needs met—use EHRs.

The reasons for this adoption gap include the difficulty of system conversions and failed implementations, lack of adequate support and

training, and the age and backgrounds of some physicians. The two most important reasons that physicians don't use EHRs are the high cost and the fact that many of the financial rewards that accrue from their use benefit the payers of health of care, not the bottom line of physician practices.

Creating substantial payment streams—real economic incentives—that directly benefit physicians using EHRs would significantly accelerate their adoption. Adopting EHRs would enhance the capacity of physicians to manage the financial risk of clinical performance and increase the breadth and precision of clinical performance measures. A targeted public/private program that subsidizes the use of certified, interoperable EHRs, done in connection with pay-for-performance incentives and a regional health information exchange project, would go a long way toward bridging the adoption gap. These measures would enable Medicare and Medi-Cal payment to transition from a volume-based system to a quality- or performance-based system. Note that closing the gap does not require that community clinics, small medical practices, and rural providers adopt the same systems as large, urban practices, only that the systems have similar capabilities.

To make progress in this arena, the state should build on existing programs that have successfully created common pay-for-use and pay-for-performance programs for physicians. The nation's leading pay-for-performance program is operated in California by the Integrated Healthcare Association. Expanding on this programs and aligning it with Medicare and Medi-Cal is a clear path to change California's health care reimbursement system from one based on volume to one based on outcomes enabled by health IT. Another longer-term approach would be for the state to create centralized, easier-to-administer, multi-payer payment programs that do not run afoul of anti-trust and other legal barriers.

RECOMMENDATION 4: Develop an IT-savvy health care workforce.

Direct the chancellors of the California State University and California Community College systems to develop curriculum and a training certification program to ensure that California has sufficient health care workers trained in the effective use of health IT.

As health care converts from a paper to digital world, a wide range of health care workers and professionals—from radiology and pharmacy technicians to medical assistants, nurses, and physicians—must learn new skills. At the same time that many young people seek jobs that allow them to use technology, there is a shortage of young job seekers in the allied health professions. Given the growing demand for qualified health care workers who can use health IT tools, there is an opportunity to direct these young, technology-focused job seekers toward jobs in health care.

Informatics has been identified as a needed core competency to improve health care. In spite of the millions of dollars health care organizations invest in IT, a recent online survey of nurses found that they receive little or no IT training. One-quarter indicated they had received no IT training on the job over the last year, while another 56 percent said they had only received between one and eight hours of training.

There is an urgent need to address these health IT workforce shortages through a standard and voluntary certification process, along with the capacity and incentives to attain that certification. Clear training and proficiency requirements provide employers and consumers with some assurance of health IT competency. Certification also provides standards for health care workers to know what skills should be attained and ensures quality control over training services purchased.

Two levels of certification are needed—the first is a basic level of IT competency focused on the use of computers in work settings, and the second is more sophisticated certification focused on health IT applications and their successful implementation in clinical settings. California's efforts should align with national bodies that are developing health information specialist requirements. Wherever possible, such training should be made available online, to facilitate widespread availability to a wide range of current and future health care workers.

The creation of a certification process would provide immediate support for health care providers and organizations that are already struggling to put health IT into place. Specifically, such work would: 1) increase the capacity for organizations and providers to use health IT effectively to improve the quality of patient care, including improving the efficiency and effectiveness of the current health care workforce; 2) expand the pipeline of health care workers entering the system by clarifying the appealing central role of IT for those career choices; and 3) maintain and draw health IT companies to California by providing a competent workforce.

The state should direct the California State University and Community College systems to develop and implement a health IT curriculum and voluntary certification process. Many campuses already provide IT certification training for networking and specific software systems. Their locations would also allow faculty to work locally with health care providers and provider organizations to tailor curricula that could meet specific local economic development and workforce needs. All key stakeholders need to be involved with this process, including IT and health IT industry representatives, employers/provider organizations implementing health IT, professional organizations, and consumers.

RECOMMENDATION 5: Develop a statewide emergency health IT infrastructure.

Prepare California for a state of emergency by financing a statewide health IT infrastructure with the capacity to retrieve and exchange lab and pharmacy information. The network would be a foundation for an eventual statewide health information infrastructure to support patients, providers, and other important public health, research, and health care industry requirements.

One of the tragedies of Hurricane Katrina was that displaced persons lost not only their homes, but also their medical histories, making it even more difficult to care for themselves and their loved ones. Because so much health information is documented on paper, rather than in electronic form, and because even what is available in electronic form is stored in proprietary information systems that cannot communicate with each other, Californians are vulnerable if disaster strikes. In our current system, the reality is that each time a person goes to a different doctor or hospital, it is like starting all over again—a major roadblock to quality and efficient health care in all situations and a dangerous circumstance in an emergency.

Initiating the emergency health infrastructure with lab and pharmacy data makes sense because lab and pharmacy information already exists in digital form. A lab and pharmacy network would provide immediate value to multiple stakeholders in the California health care delivery system, potentially giving rise to a financially-independent, sustainable business platform.

Eventually, the emergency health information network could be expanded to include a wide range of other functions—a statewide, fully-interoperable health IT infrastructure that could provide consumers with portable health information. Three indicators will foreshadow the readiness of the emergency network to evolve into a more functional system: 1) rapidly advancing the use of certified EHRs by clinicians,

2) the availability of the technical means to achieve interoperability through common standards and architecture, and 3) the availability of the business and legal means, including privacy and security, to achieve interoperability through regional projects.

California has a strong foundation on which to build. Over the last several years a diverse set of stakeholders have collaborated first on the California Information Exchange (CALINX) project and then on the California Clinical Data Project to define uniform standards for pharmacy and lab results and to facilitate their exchange electronically among large health plans, medical groups, and clinical laboratories participating in California’s pay-for-performance programs. California also has formed Cal-RHIO, a diverse, multi-stakeholder, not-for-profit organization that works collaboratively to facilitate and implement statewide health information exchange efforts.

These foundational projects should be folded into the broader effort to foster interoperability and portable health information in a way that brings immediate financial and clinical value to all stakeholders involved. The approach should align with emerging national standards and architecture, referred to as the Nationwide Health Information Network (NHIN), to advance widespread interoperability among health care software applications, particularly EHRs.

The state should provide or arrange for funding for the lab and pharmacy network tied to the following requirements:

- Private sector operation of the network and a business plan ensuring long term sustainability;
- The development of a single set of standards and protocols, resulting in a common statewide lab and pharmacy infrastructure and ensuring alignment with emerging national standards and architecture;

- A regional implementation plan to facilitate and manage consumer privacy and information control policies and to ensure financial alignment among participants based on local market conditions; and
- The inclusion of Medi-Cal beneficiaries' lab and pharmacy information in the network.

RECOMMENDATION 6: Develop a telehealth and telemedicine system to improve health care access for rural and other underserved communities.

Create an action plan to develop, staff, and maintain a statewide, broadband telemedicine network. Such an effort should be multidisciplinary, drawing on the strengths of the state's academic medical centers, business schools, and other relevant disciplines.

California is home to 36 million people spread over 100 million acres of diverse topography. Access to specialists, particularly in rural communities, poses a significant problem as many regions have few or no providers. In the Central Valley, for example, rates of compliance with yearly retinal exams for patients with diabetes are less than 50 percent in all community clinics.

Telemedicine could significantly improve health care to rural Californians by, among other things, enabling specialist services to become accessible in underserved communities. Simply defined, telemedicine is the delivery and provision of health care and consultative services to individual patients and the transmission of information related to care, over distance, using telecommunications technologies. Telemedicine incorporates direct clinical, preventive, diagnostic, and therapeutic services and treatment; consultative and follow-up services; remote monitoring of patients; rehabilitative services; and patient education.

For telemedicine to reach its potential, several large hurdles need to be overcome. First, the current pool of specialty providers willing to accept reimbursement for Medi-Cal patients is not large enough to support current unmet demand. Second, significant investments in infrastructure must be made for services to reach underserved communities. Without adequate compensation there is little incentive for providers or purchasers to build the broadband network. The question of who should pay, build, and manage the network has prevented the development of a sustainable telemedicine solution. Finally, many providers fear that a network may not be secure or that malpractice insurance may not extend to telemedicine services, especially if a provider is physically located in another state.

Drawing on the strengths of its academic medical centers, business schools, and other university-based disciplines, the state should direct the development of a statewide broadband telemedicine network. The telemedicine action plan should detail the ways in which California's academic medical centers could be leveraged as "Centers of Excellence" to provide many of the needed primary care and specialty services to underserved communities. The action plan should develop detailed business and project plans for building and operating the broadband network and for the provision of telemedicine services. The action plan should build upon initiatives both within and outside the state with a track record of successful telemedicine implementations and incorporate fully the recommendations of the 2005 California Telemedicine and eHealth Center (CTEC) report and the 2005 Public Utilities Commission (PUC) report.

The state should participate in a new pilot program established by the Federal Communications Commission (FCC) to assist public and nonprofit health care providers in building state and regional broadband networks dedicated to the provision of

health care services, and to connect those networks to Internet2, a dedicated nationwide backbone.

RECOMMENDATION 7: Adopt and implement national and state health IT standards.

Employ the state’s purchasing power to require those who develop, purchase, and use health IT systems to adopt uniform standards to promote the flow of secure information. Endorse national standards where they exist; forge ahead with state standards where there are none.

Standards are foundational to interoperability. The current landscape of standards does not ensure interoperability due to many factors, such as too many standards from which to choose and conflicts and gaps among current standards. In order for interoperability to be realized, technically sound interoperability standards and policies must be identified, assessed, endorsed, and maintained. There have been considerable efforts nationally through the Health Information Technology Standards Panel. Progress, however, has been slow and there are still gaps in setting the necessary standards to achieve health information portability. In California a collaborative group of industry stakeholders have developed and implemented laboratory and pharmacy standards to facilitate data integration into clinical information systems. The California Information Exchange (CALINX) project was organized and facilitated by CHCF. The Integrated Healthcare Association (IHA) is maintaining the standards.

To achieve a widely accepted and useful set of standards for interoperability, an interactive process among national and state standards-setting efforts is required. Where national standards exist, California should adopt them. In their absence, California should lead in developing and enacting its own standards in line with national efforts. A process to develop and promote shared data models, data

standards, and controlled vocabularies for electronic reporting and health information exchange is critical to achieving widespread interoperability.

The State of California should adopt and implement the CALINX Lab and RX standards, the EHR-Lab Interoperability and Connectivity Standards (ELINCS), and endorse the Certification Commission for Health Information Technology (CCHIT) Certified Ambulatory EHR products. The state should require any relevant state health care IT funds, grants, contracts, reimbursement, and purchasing to use these and other emerging state and national standards.

RECOMMENDATION 8: Coordinate the actions of all state agencies and programs to leverage health IT to improve access, quality, and affordability of care.

Direct the Department of Health Services in its administration of Medi-Cal and other programs, the Department of Managed Health Care, and other state agencies to advance the health IT agenda articulated in the eHealth Action Plan. Encourage CalPERS to pursue the same agenda. Coordinate state policies and incentive programs with those of private sector.

The State of California is the largest purchaser of health care in the state. Achieving the governor’s goal of improving care delivery and avoiding unnecessary health care expenditures by rapidly advancing the use of health IT requires harnessing the reimbursement and purchasing power of state government. Market forces alone will not produce the level and kinds of health IT adoption that the governor has determined are critical to reform the state’s health care system. Presently, California, like many other states, does not have a statewide health IT policy. Its various agencies, and often departments within a single agency, make decisions affecting the collection, use, and disclosure of health information in an uncoordinated fashion.

The plan that emerges from the governor's eHealth Forum must require coordinated action by state agencies to implement a defined set of policies that could help ignite change in the health IT marketplace.

State government interacts extensively with the health care sector. Because of both the size of the state's investment in health care, and its responsibility to advance public health, the state government has an enormous opportunity to provide leadership to apply health IT to transform health care. Through Medi-Cal and Healthy Families, the state finances coverage for one in five Californians and directs the expenditure of over \$36 billion in health care spending. Additionally, the state spends approximately \$3 billion on the health care of its employees and retirees. Intelligent investment in interoperable health IT would help the state government achieve its own goals of lowering the cost of state programs and enhancing state program effectiveness. If properly structured, state investments could leverage significant private investment in a way that amplifies the impact of state, federal, and private sector initiatives.

Through Medi-Cal and other state programs, the state should exert its leadership to promote public reporting of quality and cost data among health care providers and plans, to close the health IT gap for providers serving beneficiaries of these programs, to participate in the exchange of lab and pharmacy information, to support the adoption of national and state IT standards, and to expand access to care in underserved areas through telemedicine. For example, health plans participating in Medi-Cal must report data on the quality of care provided to their members, but none of the current statewide measures can be used to determine how well these health plans are serving beneficiaries with disabilities, who account for the largest share of Medi-Cal expenditures. Similarly, the state does not require the exchange of data or coordination of care for Medi-Cal beneficiaries between their health plan providers and county

mental health providers, though doing so could improve quality and reduce costs.

Opportunities to improve efficiency and quality with health IT are not limited to the clinical arena. Many administrative functions also would benefit from more effective deployment of IT solutions and state support. Demonstrated improvements in interpreter services using a secure video-voice application, recently implemented in three California public hospitals, should be extended to public hospitals statewide. The state should play a leadership role in creating more consumer-friendly eligibility determination, enrollment, and retention processes for Medi-Cal and other state-funded programs, based on the successful One-e-App model.

Other states have used state funds, federal grants, federal funds from Medicaid waivers, and other mechanisms to promote health IT adoption; California should do the same. Moreover, the state should ensure that the relevant agencies have the appropriate budget and authority to accomplish the objectives set forth in the eHealth Action Plan, that their efforts are coordinated, and that they are each held accountable for results.

RECOMMENDATION 9: Align public and private sector actions to innovate and transform health care.

Create mechanisms for engaging the private sector in developing innovative health IT solutions and work with them to improve the health care system. Recognize that the state government cannot do it alone.

Progress toward widespread use of interoperable health IT requires aligning the interests and actions of numerous public and private stakeholders. Today, health care in California, as in the United States as a whole, involves multiple and diverse constituencies, including physicians, hospitals, laboratories,

pharmacies, health plans, purchasers, consumers, federal, state and local government heads, consumer organizations, research scientists, and many others. While each of these constituencies has strong interests in supporting the governor's goal of ensuring rapid adoption of health IT, none of them can or will act alone. This is because the costs of action are more than any one party can afford and for the benefits to accrue at all, a wide community of stakeholders must participate and cooperate. The eHealth Forum called by the governor must not only define a roadmap for achieving widespread use of interoperable health IT in California, but also must determine a vehicle for unifying the many conflicting public and private health IT efforts that currently populate the California landscape.

The slow and limited adoption of interoperable health IT in California results in large part from the way in which health care services are reimbursed. The dominant payers for health insurance in California are employer-sponsored health plans and government. Together, they have created a patchwork of benefit plans, coverage and medical necessity requirements, and administrative processes, which bury physicians in paperwork and confound the health care consumer.

The fragmented health care financing system creates few incentives for payers and providers to work together to create administrative and clinical efficiencies or to promote the quality of care. Many types of health IT investments—such as health information exchange platforms—would benefit multiple parties in the health care system, but do not benefit any one party enough to justify making the investment. And in many cases—such as with EHRs—the party that has to make the investment is not the chief financial beneficiary of such investment. Interoperable EHRs, combined with regional health information exchange networks, place significant costs on the physicians, even though the benefits realized through such investments—reductions in duplicative

services and unneeded hospitalizations—accrue largely to health care payers.

California's private sector has a wealth of relevant experience that could be tapped. Its information technology industry has been a source of innovation and transformation in many other industries. The technical prowess of the Silicon Valley (and of the technology industry distributed around the state) is without peer. Private sector innovators in health care have created transformational reimbursement systems that depend on extensive use of health IT and stand ready to be scaled up across the state.

The governor and legislature could use many mechanisms to engage a wide variety of stakeholders and ensure coordinated public and private action, including working groups, task forces, designated liaisons between the public and private sectors, and advisory commissions. The key issue is not what mechanism is used, but how it could be led by a broad, representative, action-oriented, and engaged group of state leaders.

RECOMMENDATION 10: Create a social investment fund to support and sustain health care innovation and transformation through health IT in California.

Focus the fund's investments on health care innovation and transformation for the public benefit of the residents of California. These investments should seed the key actions of the governor's eHealth Action Plan and stimulate the private marketplace to accelerate its investments in health IT.

The need for a social investment fund is compelling because the business, technical, and policy case for investment in health IT is still at an early stage of development. By establishing the fund, the state would stimulate further public and private investments in health IT to demonstrate its quality

improvement and cost savings value to consumers, providers, payers, and other health care stakeholders. The fund's investment priorities should be aligned with the priorities of both public and private stakeholders, who could then coordinate their own programmatic, purchasing, and investment initiatives with those of the fund.

The capital for the fund should come from three sources, reflecting the public/private nature of state's overall strategy. It should include funds contributed by the state; by private sources, including foundations and stakeholders in the health care system; and funds previously secured from California health plans to, as stated in the governor's Executive Order, "benefit the diverse needs of rural communities, medical groups, and safety net providers."

The state should ensure the fund requires applicants to provide rigorous business plans and should not support experiments or early pilots, nor should it support a widespread roll-out of technology. The fund should take a middle course, to bring ideas from "post-lab" to "pre-market." In making investment decisions the fund should evaluate whether the investment: 1) serves a broad public good, 2) involves a commitment of public and private stakeholder resources to strengthen the investment; 3) advances portability of health information; and 4) demonstrates a sustainable business model, allowing the project to continue after the initial investment is made. The fund should be given broad flexibility in determining the size, structure, and financing terms and conditions of any of its investments so it could be sure to take all actions necessary to maximize the success of each project.

ABOUT THE FOUNDATION

The California HealthCare Foundation is an independent philanthropy committed to improving the way health care is delivered and financed in California. Formed in 1996, CHCF works to ensure that all Californians have access to affordable, quality health care.

CHCF's Goals Are:

- To reduce barriers to efficient, affordable health care for the underserved.
- To improve the quality of care for Californians with chronic disease.
- To promote greater transparency and accountability in California's health care system.

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.