



Industry Advisory Council
Transition Study Group

**The Time for Electronic Health
Records is NOW!**

January 5, 2008



Industry Advisory Council

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Executive Summary: The Time for Electronic Health Records is NOW!

Wide use of electronic records could vastly improve patient health care and medical outcomes, streamline the health care system, make it more efficient and save billions of dollars in unnecessary costs. In many respects, it is a lynchpin to health care reform that will be high on the agenda of the new president and Congress. Yet only 17 percent of American doctors are now using electronic health information systems, and public acceptance is lacking.

Healthcare providers who frequently fly blind when it comes to patient medical histories could greatly benefit from instant electronic access to complete patient health records to make proper diagnoses and prescribe proper treatments. Comprehensive electronic digital health record (C-DHR) systems could help healthcare providers track crucial medical information, insurance data, family history, medications, and special conditions. Consumer empowerment will come about as quality information is more transparently provided to consumers.

Yet many doctors and health care systems are not yet convinced of its value, and do not want to incur the expense. Few incentives exist to encourage them to embrace it. There is also public ambivalence stemming from fear that the health records could be used to invade their privacy.

Getting on the fast track and making electronic medical records the norm rather than the exception will require strong leadership in Washington as well as decisive action across multiple levels of government and the health care community.

The Obama administration must make funding for C-DHR a priority, and provide tax incentives to encourage wider use. The new administration also has an opportunity to leverage the size and scale of the federal government as the largest user of health information to become the “market maker” by setting standards for C-DHR and enforcing compliance within the federal interagency health care community.

Establishing Federal standards as the market standard for C-DHR throughout the broader public-private health care environment would drive and enable enormous across-the-board improvement. A C-DHR-enabled Health IT infrastructure is a precondition to making the pending health care reform proposals now being discussed a reality.

This paper outlines the issues at hand, the importance of healthcare IT, and strategies for change. Our recommendations include congressional approval of financial incentives to promote provider C-DHR adoption; the setting of federal standards for C-DHR and the enforcement of compliance within the federal interagency health care community; the implementation of safeguards to establish public trust in the C-DHR privacy and security environment; and improved public education on C-DHR benefits to national health and economy. These steps can and must be taken for the United States to have a more cost effective, efficient 21st century health care system.

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The Time for Electronic Health Records is NOW!

The U.S. healthcare system is in urgent need of reform. Among the most critical issues to be addressed include gaining control over ever-increasing healthcare costs, getting better healthcare outcomes, providing incentives for wellness programs and preventive medicine, and improving the efficacy of health care through the coordination of benefits delivery.

There are many steps needed to achieve these goals. But comprehensive digital health record (C-DHR) systems are a major component that cuts across the entire universe of health care services and programs. Establishing C-DHR would enable immediate, rapid progress in every critical area, and help improve health care for all U.S. citizens.

Status Quo: Inefficient and Ineffective

Presidents and Congress have long talked about electronic health care records or e-health records. It was a centerpiece of President Clinton's health care reform initiative in 1993. President Bush issued an executive order in 2004 establishing as a national goal that all Americans would have individual electronic medical records by 2014. Despite presidential sponsorship, the implementation effort has not received adequate funding, and support from inside the health care community has been inconsistent. As a result, the current health care information sharing environment, as reflected graphically in Figure 1, remains antiquated, inefficient and ineffective.

Providers are the most important players in healthcare delivery. Their understanding and acceptance of C-DHR is critical to its adoption, but they have not been convinced of its value, and few incentives exist to encourage them to embrace it. Perhaps the most important reason for the slow pace is public ambivalence. Many citizens do not trust that private health information will be used and stored safely and confidentially by the various users of the information¹. Clearly, the implementation challenge is not a technology issue per se; it is rather a "change management" challenge with social, political and public policy dimensions. This means it can only be resolved through strong leadership and decisive action across multiple levels of government and the health care community, and -- most importantly with the consent of an informed and willing public.

As a result of slow progress, healthcare delivery and medical outcomes in the U.S. continue to be expensive, inefficient, and often ineffective. Redundant clinical testing alone amounts to hundreds of millions of dollars in avoidable costs and precious lost time. The United States continues to spend the highest percentage of gross domestic product and have the highest per

¹ Based on security lapses in the financial and credit industry the average citizen remains unconvinced that their medical information will not be misused: For example, see R. Vesely, *Modern Healthcare Magazine*, October 9, 2008; Telephonic national survey of 1000 adults showed 62% saying that they had no confidence that their electronic medical records would remain private.

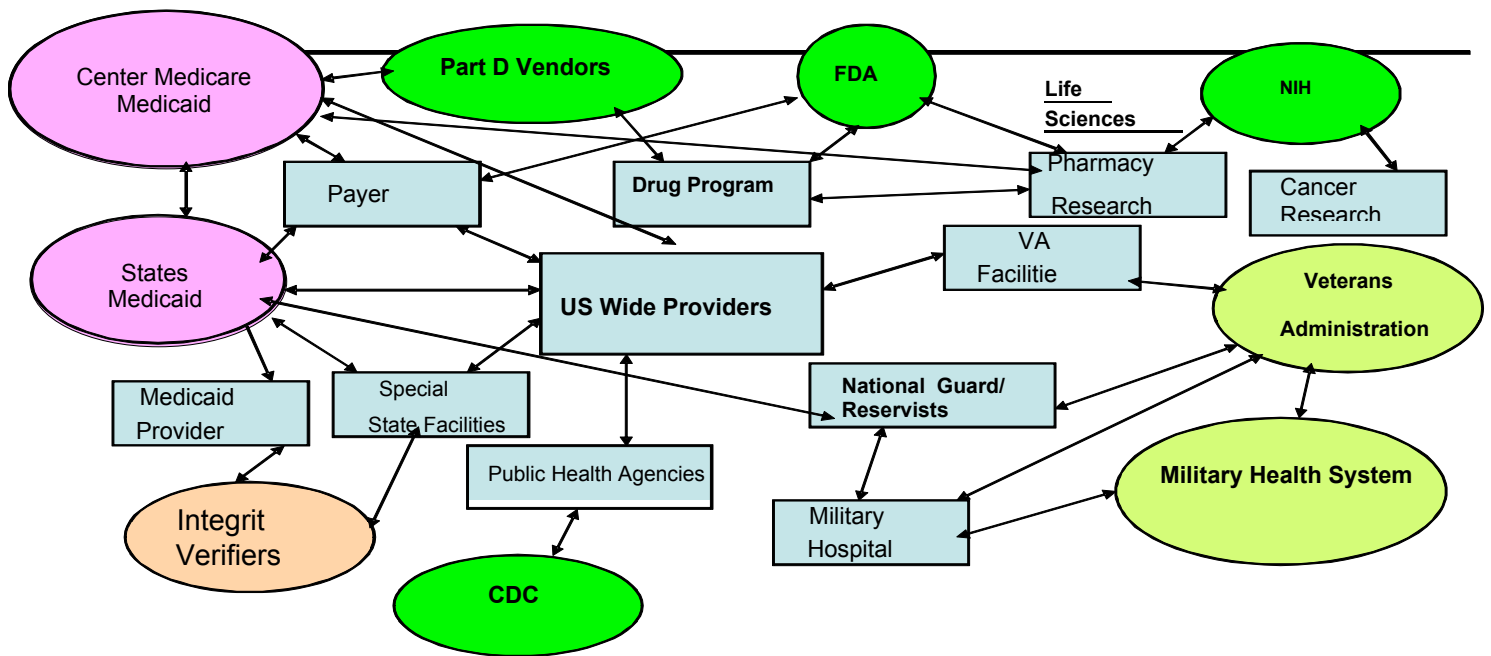
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capita expenditure on healthcare (more than twice the average) of the largest industrialized nations. Yet the U.S. ranks 15th in preventable deaths, 37th in overall healthcare quality, and last in infant mortality and life expectancy. Only 17% of U.S. doctors use electronic medical records, compared with 80% in the top three industrialized countries. A report by the Commonwealth Fund said that “if the U.S. improved and standardized health-care performance and access, approximately 100,000 to 150,000 lives could be saved annually, along with \$50 billion to \$100 billion a year.”²

Figure 1: Health Information Sharing Context



² Report commissioned by the non-profit and non-partisan Commonwealth Fund - http://news.yahoo.com/s/bw/20060921/bs_bw/tc20060921053503

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KEY ISSUES

There are a number of key issues in health care reform and benefits relating to these issues that could be achieved by adoption of C-DHR: They are:

- Access to health care
- Improving quality and health care system performance
- Cost containment
- Incentives to promote adoption of health IT
- Entitlement programs

Issue 1: Access to Health Care

Access to healthcare is a controversial issue. It is beyond question that all Americans have access to some level of health services – even if only to emergency rooms. The questions of quality of health care received and the quality of health management are different matters entirely. It is certain that C-DHR can enable significant gains in citizen access to quality healthcare and health management.

The adoption of C-DHR can enable consumer empowerment relative to access to healthcare. The C-DHR will help track healthcare information, insurance, family history, medications, and other special conditions. Consumer empowerment will come about as quality information is more transparently provided to consumers. The C-DHR will assist in ensuring the ready flow of not only health information, but also information about outcomes and quality of service provided to consumers.

Interoperability is the key to improving access to quality healthcare using the C-DHR. That requires uniform standards.

The Healthcare Information Technology Standards Panel (HITSP) is a cooperative partnership between the public and private sectors³ initiated by the Office of National Coordinator of HIT (ONC). The panel was formed to produce standards and specifications to accelerate the secure information exchange of healthcare data to benefit all stakeholders, including patients, providers, government agencies and payers. The HITSP produces a standards framework that addresses electronic health record laboratory results reports, bio-surveillance, and consumer empowerment.

³ NGA Report on e-Health Recommends Adherence to HITSP Interoperability Specifications, New York, September 25, 2008; HITSP Consumer Empowerment and Access to Clinical Information via Networks Interoperability Specification, Version 3.1.1



Interoperability provided through HITSP will enable the mobility to consume the health data in more dynamic ways. Interoperability also creates challenges around security and data stewardship. These are the typical issues that are introduced in the evolution of any system from a very manual process to a more digital paradigm; they can be addressed if there is leadership will to do so.

The Healthcare Information Security and Privacy Collaboration (HISPC) is another organization created by ONC that is composed of all of the states and seeks to reduce barriers to health information exchange, both within states and between states. The HISPC is addressing business practices and policy differences between organizations as well as lack of consistency in state laws to allow systems in different regions to become interoperable. It is necessary and important for actionable interoperability not only that systems be appropriately certified as fulfilling standards and that, in practical terms, interoperability can actually be demonstrated.

Using C-DHR to drive consumer empowerment around healthcare will enable higher quality care. Physicians using the secure health information exchange (HIE) can provide access to better health management by reviewing patients' current disease management or by identifying regional trends. Patients would gain the ability to monitor and manage their health online.

Issue 2: Improving Quality and Health Care System Performance

The implementation of C-DHR will improve the quality of healthcare delivery and the overall performance of the healthcare system in several ways. Standardization of information will allow for the creation of improved quality measures which in turn will drive improvements in the overall quality of healthcare delivered and related outcomes. Implementation of C-DHR will also allow a physician to diagnose diseases faster and more safely since historical information will be collected over time from numerous sources to present a clearer picture of a patient's health at the point of care. In the aggregate, these individual improvements in healthcare delivery will result in a healthier general population, allowing physicians to devote more of their efforts to encourage prevention and wellness behavior and less on the treatment of disease.

Results of the Future of Family Medicine Project, published in 2004, stated that "Having electronic health records with a relational database design and meeting national technical standards is essential. The paper medical record can no longer provide a sufficient foundation for clinical care and research within family medicine."⁴ The reason for this is simple: the ability to provide superior care is enhanced when a physician has access to extensive historical information on a patient's health.

Consider the case of an adult being seen for the first time by a doctor in a new city to which the person has recently moved. The doctor's initial information gathering will undoubtedly cover the

⁴ "The Future of Family Medicine: A Collaborative Project of the Family Medicine Community." *Annals of Family Medicine* 2, no. 2 (March 02, 2004): S3-S33.



basic questions that will reveal the person's past health history. But what if this person has an imprecise memory (or no memory at all) of a key piece of their medical history? It is possible that the doctor will miss some piece of information that is critical to this patient's care?

Alternatively, one can imagine a scenario in which a patient is seeing more than one doctor for different issues. Each doctor may be relying mainly on the patient to communicate important information about the other treatments. Is it reasonable or wise to trust this to the patient? A C-DHR would help improve the accuracy of information flow. It will ensure that people with complex diseases receive the care they need. Treatment schedules can be tracked and long-term treatment side effects may be avoided.

A world in which information is captured and stored in a standard manner will be one in which the efficiency of healthcare delivery is improved substantially. Structured data allows for clinical analyses, population health management, medical surveillance, development of evidence-based clinical practice guidelines, and outcomes research. We take for granted the system that maintains a record of the maintenance performed on our cars at the local service shop, and yet it is these systems that provide us many benefits beyond the reminder that it's time to change the oil. Data mining of these systems can point to problems in a given model that may lead to the identification of a serious problem before it becomes a danger. Similarly, the standard information gathered in the C-DHR could be used to improve quality of care through clinical monitoring based on large-scale screening and aggregation of data; for example, the early detection of a potential bio-emergency such as an infectious disease outbreak.

The ability to share information across government agencies would improve the quality of the system and delivery of healthcare in general. Numerous federal agencies have health care responsibilities, but there are often no clear lines of communication or information exchange between and among them.

Privacy: There are privacy issues that would need to be addressed, however, these issues are less about technology than societal norms. People must weigh the benefits of providing information against the possibility that such information will be compromised. When making this decision, it is important to understand the benefits that will accrue to society as a whole. As one source suggested:

We assert that protecting health information privacy (by providing individuals some control concerning their health data without severely restricting warranted use of the data) directly improves the quality and reliability of health data (by encouraging individuals to fully use health services and allowing communal uses of the data for societal goods), which diminishes tort-based liabilities (by reducing the opportunities for medical malpractice or invasions of individual privacy, improving the quality and reliability of health research data, and ultimately improving the quality of clinical care and medical products in the marketplace).⁵

⁵ "Legal Issues Concerning Electronic Health Information Privacy, Quality, and Liability"



Simply stated, the privacy issue surrounding the implementation of the C-DHR is one which will require a change in thinking about divulging certain information about one's personal medical history. This change in thinking will not come easily, yet it can be accomplished with the right set of assurances and policy directives in place. In the same way that the public has come to accept the legitimacy of reporting highly sensitive personal financial information to the IRS, they will eventually accept the greater good served by adoption of C-DHR.

The consumer should be in control and have their health record details at their fingertips to share - not only for the benefit of the provider to make best diagnoses and prognoses - but also for the payer to equitably determine risks and costs.

Public and private organizations have established acceptable definitions of "privacy" (reference Dr. Deborah Peel, chairwoman of the Patient Privacy Rights Foundation, a nonprofit group) that should be embraced and enforced by all parties. As it becomes more widespread that an accurate health record can lead to the person getting better data for improving health, receiving quality care (outcomes) and reducing costs, consumers will be enabled to share their private data in a secure and trusted manner.

Accessibility: Today, data on one's health is scattered throughout electronic media, paper forms, handwritten notes, x-ray films and MRI's, audio, video and largely personal memories. For widespread consistent adoption of the C-DHR, quality measures and standards need to be defined and embraced. HIMSS, JCAHO, AHQA, and numerous other standards and public/private organizations have established such meaningful and essential record content and format. As it will be a long journey to collect legacy data from its many disconnected and inefficient formats into these agreed on record formats, it is critical that health record systems are flexible to aggregate any and all legacy data types into a personal health record "vault." As C-DHR becomes more affordable and widespread within the provider community, there will be more opportunities to directly transfer detailed quality health information including medications, clinical, lab data and claims directly into one's "vault." This will allow the data to be controlled and shared by the consumer.

Efficiencies: The extent to which quality data is readily available electronically (7x24x365) on a patient's health, the more effective and efficient will be the diagnosis and delivery of care. Examples abound, including not having to run other sets of x-rays, MRIs, blood work and immunizations. Availability of such information can drive efficiency, reduced time and cost, and can lead to accelerated and more informed care decisions. Efficiencies also will be gained as C-DHRs expand into health "platforms" whereby large ecosystems of healthcare related providers can be made available to consumers so they can share their data electronically and receive advice, monitor health, receive home care, participate in telemedicine with remote care providers or receive stay-at-home healthcare.

James G. Hodge, Jr, JD, LL.M.; Lawrence O. Gostin, JD; Peter D. Jacobson, JD, MPH
JAMA. 1999;282:1466-1471.



Issue 3: Cost Containment

A sustainable, high-quality health care system for every American cannot be achieved unless costs are controlled by improving the overall quality of care delivered, focusing on disease prevention, and reducing the wasteful tests and services. Study after study has demonstrated containing costs does not have to mean cutting back on the quality of care. Quite the opposite, high quality and lower cost can go hand in hand. In addition, health care cannot be made accessible to everyone if health care spending rises by six percent to eight percent a year as it has in the recent past. C-DHR will enable improved overall quality of care delivered, better focus on disease prevention, and reduced fraud, waste and abuse.

Coordination of Care: The adoption of C-DHR will improve the poor quality and inefficiency of care as individuals receive only the care needed. This means focusing on integrating “well-care” (prevention and self-management) with sick-care. Among the cost savings resulting from the coordination of care for the individual are fewer redundant and unnecessary tests, especially when the individual is receiving care from more than one provider. It also means reductions in unplanned hospitalizations, extra costs arising from patient safety hazards from harmful pharmaceutical interactions, and incompatible treatments from various providers. By far the most important benefit of the ability to coordinate care is providing the primary care provider (PCP) with a holistic view of the treatment plan which enables the PCP to fine tune the care and provide only what is needed. Providing care in this holistic manner will ultimately serve to avoid health complications and unnecessary hospitalizations.

Improved Practice of Evidence Based Medicine: Costs are also reduced when a clinician is able to make timely and accurate diagnoses and select the most appropriate treatments through evidence-based medicine. Evidence-based medicine is defined as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research. Individual clinical expertise is, of course, the proficiency and judgment that individual clinicians acquire through clinical experience. Increased expertise is reflected in many ways, but especially in more effective and efficient diagnosis and in the more thoughtful identification and compassionate use of patients' predicaments, rights, and preferences in making clinical decisions about their care. The accessibility and availability of the patient's lifetime health care information in the C-DHR is a key mechanism for building and sustaining the clinician's insights into the causes and symptoms identified and detected. Further, in collaborating with the wide audience of providers on patient treatment facilitated by an enhanced data resource, the providers work can be more highly scrutinized than ever before. If a provider has chosen a course of care that is not based on best available evidence, questions are likely to arise from collaborating providers who are following best evidence-based practices. Changes in treatment plans and cost reductions are likely to ensue.

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Authoritative Source for Systematic Research: Another dimension of evidence-based medicine involves the use of the best available external clinical evidence such as clinically relevant research. This may include research from the basic sciences of medicine and patient centered clinical research that could help in corroborating results of diagnostic tests, checking the accuracy of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative, and preventive regimens. Historically, external clinical evidence tends to invalidate previously accepted diagnostic tests and treatments and replaces them with new ones that are more powerful, accurate and effective. C-DHRs represent an authoritative source from which data can be transformed and loaded for use in identifying patterns and trends, conducting “what if” analysis, and generally developing the health care analogues of business intelligence. The C-DHR would make data more available to establish and enhance the evidence base.

Improved coordination of benefits: Nationally, coordination of benefits is a significant issue that contributes to fraud, waste and abuse. The benefit coordination problem primarily stems from an inability to identify the payment programs for which a beneficiary is eligible. This often leads to duplicate billing and payment for the same services by multiple payers. There is no way for one payer to know that the same services were billed to and paid by another payer. Therefore, they can be and often are paid multiple times by multiple payers. This is especially true for federal payers such as Medicare, Medicaid, Veterans Affairs, TRICARE, and state payers. Due to the current limitations on information sharing and the dynamic nature of Medicaid eligibility, there is almost no way to coordinate benefits and determine which health programs a patient is eligible for at any given time and whether or not payment has been made by Medicaid or Medicare or any other federal or commercial payer for services rendered.

Promote prevention and strengthen public health: The analysis of selected data from C-DHRs across populations will enable the identification of the conditions and opportunities that allow and encourage Americans to adopt healthy lifestyles. It will provide supporting documentation on the efficacy of employer wellness programs, attacking childhood obesity in the schools, expanding the number of primary care providers, and disease prevention programs. Responsible citizens can be expected to make better lifestyle decisions if they can actually see, interpret, and use their personal health data.

Issue 4: Incentives to Promote Adoption of Health IT

To accelerate the adoption of the C-DHR, the federal government must consider a strategic incentive program. Policy incentives include providing physicians access to low-cost capital to get over the adoption hurdle and incentives to reward ongoing use of C-DHR. The incoming administration should consider multiple incentives including grant programs to reduce the cost of acquisition and implementation, tax credits, reimbursement reforms, subsidized government loans to small- and medium-size physician practices, and wellness programs linked to performance. Outlined below are several options that would provide the health care industry with the resources to invest in technology and systems to improve health care delivery for all Americans and accelerate adoption rates. Recognizing the current financial and credit markets

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and economic downturn, and the increasing entitlement burden carried by the federal government and the states through healthcare costs, it is critically important that the federal government support the health care industry and stabilize the health care market. It must also take action now to decrease the growing burden by engendering through such incentives more rapid adoption of healthcare information technology.

Financial Incentives: Financial barriers are a major challenge to the adoption of the C-DHR. Providers are the frontline users of C-DHRs, and they would absorb not only the cost of purchasing the hardware and licensed software, but maintaining the system. However, most providers do not place a high value on the benefits of the required technology investments, which they view as cost-prohibitive. In addition, the transition of moving from a paper-based to an electronic record system requires physicians to retrain themselves and their staff. This often results in revenue losses from lower productivity during the transition phase. Moreover, many physicians are concerned about the lack of consistent standards and code sets that would facilitate the sharing of patient information among providers, payers and hospitals.

The new administration must make funding for C-DHR a priority in the FY 2009 budget, including sufficient funding for Health Information Exchange (HIE) projects. Congress needs to authorize actions to enable Nationwide HIEs to work through data sharing issues with states, and to share data with federal agencies like DoD, VA, CDC, FDA, CMS, SSA, DHS, IRS, and EPA. These actions would enable states, physicians, hospitals, and the health care industry to continue to build on interoperable standards and best practices. The Department of Health and Human Services under the Office of the National Coordinator (ONC) needs to continue to provide HIE related and Health Information Technology (HIT) adoption grants and fund such projects as part of their public-private partnership.

Private physicians and hospitals that install and utilize an approved healthcare IT system that supports interoperable C-DHR should be eligible for incentive payments, whether their work involves Medicare or Medicaid patients or commercial payments. Financial incentives would increase physicians' use of C-DHR systems that meet patients' expectations for privacy and control of access to patient records. Another option would be a loan program to provide for the capitalization of C-DHR systems at primary care practices. The federal government can influence the creation of such incentives directly through executive action by the various cabinet level departments such as HHS, VA, and DoD-Health Affairs. Payers can be induced to provide such incentives through tax breaks. While incentives would have budget impacts, payoffs in the form of improved health of individuals and populations, improved detection and response to natural and terrorist disasters, and improved detection and prevention of fraud, waste, and abuse would provide substantial national value.

Tax incentives: A tax credit to medical providers in an amount equal to their investment in C-DHRs is another option that should be considered as part of an incentive program. The American Medical Association (AMA) has officially endorsed enacting a full, refundable tax credit to help physicians pay for health IT investments. Qualified health information technology

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expenses means the expenditure of funds by a taxpayer for health information technology hardware or software used directly in the establishment and maintenance of C-DHRs.

Grant Programs: Several grant programs were launched over the last several years and should continue or be expanded. The Centers for Medicare & Medicaid Services (CMS) awarded \$150 million to states across the nation to fund implementation of new ways to improve Medicaid efficiency and quality of care. These Medicaid Transformation Grants allowed states to look beyond Medicaid-only expenses (as they had been held to in the past) to implement solutions that could be more effectively utilized across all state-funded healthcare systems. CMS is also implementing a five-year demonstration project that will encourage small- to medium-sized primary care physician's practices to use C-DHRs to improve the quality of patient care. It is important that the president provide additional health care innovation technology grants to the states. Another option that needs to be expanded is a grant program aimed at providers who serve low-income areas, rural areas, and medically under-served communities as well as non-profit facilities. The FCC recently awarded Rural Health Care Grants totaling \$417 million to provide electronic connectivity among rural health centers and between such health centers and urban areas. Such a program can consist of outright grants or matching grants

Medicare, Medicaid and Social Security: Medicare provides health insurance coverage to almost 45 million elderly and disabled Americans. Medicaid is a jointly funded, Federal-State health insurance program for low-income and needy people. SSA provides disability protection through the Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) programs. These programs cover children, the aged, blind, and/or disabled and other people who are eligible to receive federally assisted income maintenance payments. A C-DHR can improve these costly programs by improving not only the quality of healthcare delivery, but by reducing time delays such as SSA disability claims that sometimes take a year or more to be adjudicated because of lack of timely healthcare data. It could also decrease the level of fraud and abuse by improved detection and prevention. The president has an opportunity to promote technology and innovation to bring down the cost and improve health outcomes for these large segments of the population.

The Department of Health and Human Services launched the Electronic Health Record (C-DHR) demonstration project in May, 2008. This was a major step toward the goal of implementing an interoperable C-DHR. CMS, which administers Medicare and Medicaid, built successful pilots to populate electronic digital medical records with claims data. These programs should continue. The HHS EHR demonstration project is expected to reduce medical errors and improve the quality of care for an estimated 3.6 million Americans. Over a five-year period, financial incentives will be provided to as many as 1,200 small- to medium-sized physician practices in 12 communities for using certified C-DHRs to improve quality as measured by their performance on specific clinical quality measures. Additional bonus payments will be available, based on a standardized survey measuring the number of C-DHR functionalities incorporated by the physician practice. Total payments under the demonstration for all five years may be up to \$58,000 per physician or up to \$290,000 per practice. CMS

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should continue its pilot program to test options for Medicare beneficiaries to maintain their health records electronically, and the program could be expanded to other States.

Another Health Information Exchange (HIE) demonstration was launched in Arizona and Utah. In these states, a beneficiary may choose one of the selected commercial personal health records (PHR). Physicians and hospitals that treat Medicare patients and use a C-DHR system that is certified to meet standards for interoperability and clinical utility would benefit. This program could be expanded.

Medicaid Innovation grants have funded C-DHR demonstrations including e-prescribing, web-based medical records, and other health information technology initiatives and such grants should be continued.

Government agencies need to focus on collaboration to provide clear healthcare delivery statements to citizens. CMS alone has very separate claims payment systems for hospitals (Part A) and private physicians (Part B).

Lastly, CMS and OMB need to be directed to consider value and savings to the government as a whole, rather than to only its own agency budgetary line, when considering whether programs are cost effective. For example, the CMS innovation grants are a way of financing systemic improvements in the whole healthcare delivery model. The federal government needs to encourage more such thinking.

Health Care for the Military Services and Veterans: The Departments of Veterans Affairs (VA) and DoD Military Health System both have C-DHR systems. VA and DOD are the largest providers of health care in the United States. They have combined annual health care budgets in excess of \$50 billion dollars, close to 12 million beneficiaries, and approximately 1,600 healthcare provision sites. Jointly and separately, these departments could exert significant influence of the provision of affordable technologies to the rural and medically underserved populations of this Nation. However, despite congressional efforts over the last ten or more years, the MHS and VA have fundamental disconnects in how data is handled. The MHS-AHLTA system is primarily a structured database system that physicians complain is difficult to use. The VA system (VISTA), which is easier for physicians to use, is largely decentralized, and records cannot be readily accessed between jurisdictions. The federal government is encouraged to continue to fund the DoD/VA Information Interoperability Plan, and to further support efforts aimed at smooth, secure interoperability between and among the DoD-MHS, the VA, and the commercial providers of healthcare that the military, veterans, and their dependents use at government expense.

Increasing Wellness and Transparency in Healthcare: The C-DHR drives improved quality of data used in treatment and in policy-making. Comprehensive digital electronic health records promise to decrease claims denial and an improved billing cycle as the movement to real-time claim adjudication becomes a reality.

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Transparency is a broad-scale initiative enabling consumers to compare the quality and price of health care services, so they can make informed choices among doctors and hospitals; the availability of such data will encourage consumers to become more conscious of their own health and lifestyle choices.

Health insurers or payers who support “value-based purchasing” or “pay-for-performance” are now creating significant incentives for physicians to implement some form of C-DHR. Payers also have begun experimenting with the use of financial incentives for physicians to use C-DHRs to achieve quality benchmarks.

Interest in using pay-for-performance strategies for improving health care quality performance has surged in recent years. The number of pay-for-performance efforts underway in the U.S. has grown significantly. Pay-for-performance programs have the potential to increase clinical quality and will save lives. The president should continue the CMS program to provide incentives to top-performing hospitals that are participating in demonstration projects.

Other Financial Incentive Options: The new president should consider creating federal income tax breaks for individuals not consuming high volumes of healthcare services. Such a financial incentive would encourage citizens to become more involved in their own health by adopting healthier lifestyles and by seeking out providers of better quality and improved outcomes. The president should also consider tax breaks for employers who invest in wellness programs for their employees. Presumably employers would be willing or through appropriately worded tax codes could be encouraged to pass such breaks on to consumers. This would provide incentives for them to adopt healthier lifestyles and become better consumers of healthcare treatment.

Non-Financial Incentives: The federal government can stipulate that HHS engage in consumer education that extols the benefits of C-DHRs and the savings to the population in lives and healthcare costs. While the public in general understands that there is value in healthcare IT, a publicity campaign would both encourage and sustain such efforts.

The president should encourage Congress to pass legislation that clarifies liability for use of C-DHRs, that resolves issues from using data entered into records from different states, and that encourages uniformity of state licensure laws.

Issue 5: Entitlement Programs

The next administration will inherit an unprecedented long-term fiscal imbalance that may be a greater peril to our nation’s future economic health than today’s housing and financial market melt-down. There is an estimated \$30 trillion gap between legislated benefit levels promised to American citizens through politically popular entitlement programs like Social Security and Medicare, and the funding to support them. If not addressed soon, a fiscal tsunami will inevitably swamp the U.S. ship of state as nearly 80 million baby boomers retire over the next 20 years.

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The core problem (as expertly articulated by former Comptroller General David Walker on “60 Minutes”⁶ and in other forums) is that Congress has over-promised and/or under-funded benefit levels. The tough choices that must be made to reconcile commitments with resources can only be addressed through the political process -- and are well beyond the scope of IT-related solutions that are the subject of this paper. Nevertheless, we are convinced that adoption of comprehensive digital health records (C-DHR) and management reforms to improve the administration of the entitlement bureaucracies can achieve savings and service improvements of significant value to American taxpayers and entitlement beneficiaries alike. These include:

- Savings through coordination of benefits
- Savings and cost avoidance through the reduction in duplicative tests and procedures
- Reduction in administrative costs through the efficiencies of a digital record for billing and payments
- Reduction in costs through streamlining, consolidation, and integration of entitlement bureaucracies and business processes
- Savings through improvements in public health administration and identification of best practices.
- Savings through improved, technology-enabled methods of identifying fraud, waste and abuse in eligibility determination, claims processing, etc.

OPTIONS FOR IMPROVEMENT

There needs to be clear ownership and rights surrounding who owns the C-DHR.

Government’s interest in supporting the nation’s health and well-being operates at both the individual level of improving health outcomes and the societal level of promoting the health of the population as a whole. While the first level involves roles and responsibilities divided between government and the private sector, government accepts the undivided responsibility for securing broader health. This includes government’s role in early discovery and reaction to bioterrorism, ensuring a safe food supply, regulation of drugs, funding the healthcare costs of the aged or the indigent, and researching new biomedical treatments.

In the first task of improving the health of individuals, the role of the federal government is multifaceted.

It includes providing incentives for industry to participate in developing and adopting standards for security and privacy, and providing incentives for individuals and the health care industry to adopt electronic records.

⁶ <http://www.youtube.com/watch?v=OS2f12p9iVs>



The government must also drive towards an actionable information source that provides:

- Individual choices in benefits, providers, medical facilities and their history with various procedures and wellness programs. It must allow individuals to own, at the core, their information.
- Health care providers the ability to view patient history, disease and treatment trends, and industry best practices as well as provides new and updated information.
- Insurance industry access to the right amount of information while providing visibility into trends, areas where improvements can be attained.
- State, local and federal governments' information to spot fraud and data misuse.

The standards must address the broad capture and future use of data for information sharing and business intelligence:

- Metadata standards
- Data exchange protocol standards
- System integration protocol standards
- Security/Privacy standards
- Retention standards
- Standard consent
- Standard federal and State laws that govern healthcare delivery and information exchange
- Standards of configuration, business process, and conduct for healthcare information exchange

VISION AND ROADMAP FOR REFORM

The following strategies are recommended to establish C-DHR and a supporting infrastructure to encourage the actionable exchange of health information.

Create Financial Incentives to Promote Provider C-DHR Adoption. Health care providers are the most important participants in the healthcare delivery system, but they have the least incentive to adopt new technologies and become more information sensitive and digitally competent. Some physicians have adopted health IT, but progress remains stalled due to cultural change-resistance and lack of incentives to move the market. The main reason adoption has been slow is because the financial benefits accrue to payers or to patients, and not to providers. For example, if the government were to create a modest 2 percent incentive in payments to physicians (and not to commercial payers), providers would adopt HIT much more readily than in the past. (This strategy addresses the specific challenges raised in Issues 1, 2, 3, 4, and 5).

Establish Public Trust in C-DHR Privacy and Security Environment. The new administration must ensure that sufficient effort is devoted to enforcement of privacy and security for digital information to allow the public to trust that their private information will not be

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mishandled. (This strategy addresses the specific challenges raised in Issues 1, 2, and 5.) Public education efforts are needed to create the trust that is essential to public acceptance of electronic records.

Many studies have shown that the public distrusts those who keep their personal “protected health information,” and they will not use such mechanisms as C-DHRs because they are afraid of identity theft or of disclosure of their own health information that will harm them through denial of insurance coverage or denial of employment. In a survey of 1,580 U.S. adults⁷-- of the people who said they were not interested in having a C-DHR, more than half (57 percent) cited privacy concerns as a reason for not wanting one. Trust cannot be established when identity theft is common. Identity theft happens because people and organizations fail to follow security practices, when there are few disincentives for improper behavior such as unencrypted sensitive information left on a laptop which gets stolen. This is what happened to the Veterans Administration only a few years ago. The U.S. military has developed practices that can secure sensitive information for millions of users, and there are very real ramifications when those rules are violated. Civilian government needs to adequately fund and rigorously enforce the protection of privacy information on its citizens. This can happen when those in charge of such security are actually held accountable for their action or inaction. Public trust cannot occur overnight, but happens when citizens understand over time that their electronic information is protected with the greatest attention and care it deserves.

"Enforcement is a crucial element of [the healthcare] framework," said James X. Dempsey, Vice President for Public Policy of the Center for Democracy and Technology. "Moreover, the Connecting for Health approach makes it clear that it is not sufficient to rely on one single enforcement mechanism for the range of privacy principles. Rather, different enforcement mechanisms will likely be optimal for different aspects of the privacy framework, and comprehensive enforcement will probably require a mix of approaches. It was interesting to see from the survey that consumers believe that a range of enforcement tools may be effective."⁸

Establish C-DHR Standards and Enforce Compliance in Federal Interagency Environment. Continue the work of CCHIT, HITSP, HISPC and other initiatives of the HHS ONC to mandate that federal standards for the definition, design, and establishment of a C-DHR that includes the rules and procedures for secure access to and the actionable interchange of healthcare information. The incoming administration should assert strong leadership and encourage federal health agencies like HHS, DOD, VA, DHS, and state governments to

⁷Survey conducted by Knowledge Networks between May 13 and May 22, 2008, which was engineered to match the demographic proportions of the general U.S. adult population (including online and offline households), with a margin of error of plus or minus 2.5 percent. The survey was designed by Columbia University Professor Emeritus Alan F. Westin, a leading authority in privacy research.

⁸ **NGA Report on e-Health Recommends Adherence to HITSP Interoperability Specifications**
New York September 25, 2008

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interchange health information so that information is actionable and can be used for healthcare decision-making. When providers in the same community cannot exchange healthcare data because they have configured the same certified product differently or have defined terms differently, then standards and certification need to be revisited. This strategy addresses the specific challenges raised in Issues 1 and 2.

Improve Public Education on C-DHR Benefits to National Health and Economy. Improve communication and outreach efforts to educate American citizens about potential C-DHR health benefits and potential savings to American taxpayers. These efforts can be assisted by improving standards of quality of care (e.g., certification by JHACO or other independent organizations) so beneficiaries can become better healthcare consumers. It is also recommended that incentives be given for better updating and training of providers. This strategy addresses the specific challenges raised in Issues 1 and 2.

The above strategies will lead to improvements in the health and well-being of all Americans, as C-DHRs will become commonplace, whether for treatment of individuals, or improvements in epidemiology or for improved public policy.

A roadmap of specific recommendations to implement these strategies follows.

Recommendation 1: Establish C-DHR Standards and Enforce Compliance in the Federal Interagency Health Care Environment. This recommendation requires Executive Branch action to adequately fund and ensure that standards are developed for C-DHR such that records are secure and actionably interoperable. Federal legislative authority is needed to require that certifications to such standards are enforced across the whole healthcare spectrum, whether that involves the provision of care, health information exchange, or payment for healthcare. Legislative action is also needed to establish and authorize to appropriate certification bodies, and to provide funds to ensure that use of certified software, processes, or health information is only appropriately used.

Recommendation 2: Create Financial Incentives to Encourage Provider C-DHR Adoption. This recommendation requires congressional authorization, but will lead to faster adoption of C-DHR utilization by providers. Funds expended for this effort will be more than compensated by the savings due to improved detection and prevention of fraud, waste, and abuse that currently is costing American taxpayers upwards of \$60 billion annually for improper payments for healthcare services and products. The federal government alone reports improper payments for Medicare of nearly four percent, which amounts to more than \$10 billion a year. It is estimated that the states make nearly \$32.7 billion per year is made in improper Medicaid payments.

Recommendation 3: Improve Public Education on C-DHR Benefits and the Efficacy of the C-DHR Privacy and Security Environment to Create More Powerful Demand for Change and Establish Public Trust. This recommendation can be implemented by the Executive Branch. For example, HHS or the Department of Education can initiate outreach programs. Executive Branch action is also needed to ensure that funds are actually spent by

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agencies controlling government held personal health information and ensuring the protection of that data. Agency heads need to be held accountable for adequate enforcement of the security rules. Legislative action is necessary to craft laws specifying criminal and civil penalties for security breaches leading to medical identity theft, and allowing anyone, including private citizens, to bring court action.

Recommendation 4: Enable Intergovernmental Health Information Exchange for C-DHR.

This recommendation may be realized by Executive Branch order but may require congressional action. Imposing such action on states requires appropriate legislative action that pre-empts state law.



Acknowledgements

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