HEALTHCARE LEADERSHIP COUNCIL

**Testimony of
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**Hearing on
Investing in Health IT:
A Stimulus for a Healthier America**

**United States Senate
Committee on Health, Education, Labor, and Pensions**

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430 Dirksen Building**

Senator Mikulski and other members of the Committee, I want to thank you on behalf of the members of the Healthcare Leadership Council (HLC) for the opportunity to testify on health information technology (HIT) funding as an important component of economic stimulus and its role in health care reform.

My name is Mary Grealy and I am president of the Healthcare Leadership Council (HLC), a not-for-profit membership organization comprised of executives of the nation's leading health care companies and organizations. Fostering innovation and constantly improving the affordability and quality of American health care are the goals uniting HLC members.

Last May, HLC released *Closing the Gap: A Proposal to Deliver Affordable, Quality Health Care to All Americans*. This proposal represented months of work and collaboration among HLC members and an acknowledgment that health care must be delivered more efficiently, safely, and effectively in this country. Widespread adoption of HIT affords us the opportunity to accomplish all of those things and more. Members of HLC – hospitals, academic medical centers, health plans, pharmaceutical companies, medical device manufacturers, biotech firms, health product distributors, and pharmacies – have seen firsthand what widespread adoption of HIT can mean to patients.

Several HLC member organizations are among the pioneers of health information technology. The collective experiences and achievements of these early adopters leads us to believe that HIT has the capability to transform our health care system by providing increased efficiencies in delivering health care; contributing to greater patient safety and better patient care; and achieving clinical and business process improvements. In combination with improvements to healthcare payment and delivery systems, HIT could have an even greater impact on improving health outcomes and lowering costs.

While many HLC members have embraced the promise of HIT, as many have testified before this and other committees of Congress in the past few years, physician and hospital uptake of this technology has been slow to date. Health care lags behind other industries in embracing information technology. When surveyed as to the reasons why they are hesitant to "go electronic," non-adopters often cite many reasons – ranging from confusion or lack of understanding of new systems to liability concerns. But time and again, cost is identified as the most substantial barrier to widespread adoption and use of HIT.

In my testimony I will discuss the ways in which HIT brings greater quality and value to our health care system. I've included as part of my written statement an attachment (see Attachment 1) that describes how various HLC member companies and organizations have already achieved significant success utilizing information technology.

I also will outline the need for Congressional action to remove barriers to nationwide adoption of HIT by creating funding mechanisms to assist health care providers with the sizable IT infrastructure investments that are necessary if they – and their patients – are to be part of this technological revolution. Lastly, I will address the need for Congress to oversee the development of national, uniform standards and address privacy concerns as part of an interoperable health information network.

The Benefits of HIT

HIT holds the potential to move our country toward truly patient-centered health care. The value proposition of HIT is putting tools in place to empower patients and physicians to make better decisions with more information at their fingertips. At the consumer level, HIT will help patients navigate their health care journey and arm them with decision making abilities that have been elusive due to the lack of meaningful and actionable information at their disposal. This would lead to improvements in care management by empowering patients, their care givers and providers with critical information to improve care continuity and health outcomes.

Many HLC members are using electronic health records and other forms of HIT and documenting their successes. For instance, one of our members, NorthShore University HealthSystem of Evanston, Illinois, has operated a patient-centric electronic health record (EHR) system since 2003. Over fifty thousand of NorthShore's patients enjoy a direct link to the system on their home computers and PDAs, which enables them to schedule appointments online, refill prescription drug orders, and communicate with their primary care providers.

Since that time, NorthShore has garnered concrete evidence that EHRs are a critical tool that can improve care quality and patient satisfaction, as well as create efficiencies that lead to a positive return on investment. For example, they have cut in half the amount of time it takes to deliver the first dose of medication to an inpatient because of the speed with which they can check the possibility of conflicting medications or allergic reactions. This has resulted in a medication error reduction rate of close to 80 percent.

Furthermore, a March 2008 study in *The Annals of Internal Medicine* that was also reported in The Wall Street Journal, demonstrated a 70 percent reduction in MRSA infections at the three hospitals in NorthShore's system. The use of HIT to identify infections and manage affected patients across the healthcare system was crucial to this undertaking.

HLC believes that the establishment of similar nationwide health information connectivity among physicians, and health care professionals such as home health aides, care managers, health plans, and others across the continuum of care, will dramatically improve both the quality and effectiveness of care. That is

not to say that we believe HIT is the "silver bullet" that will address all of the health care challenges we face. We believe, though, that combined with comprehensive health system reform, HIT is a critical component in lowering health care costs over the long-term and providing safe, effective, efficient and equitable patient care.

Another way in which HIT would improve quality is by reducing or eliminating duplicative medical care and overutilization, which the National Priorities Partnership has identified as one of the six areas on which quality improvement efforts should focus. William Yasnoff, former Senior Advisor on the National Health Information Infrastructure for the U.S. Department of Health and Human Services (HHS), posits that 20 percent of all laboratory tests and radiology studies are redundant, performed because the results of previous tests are not available at the point of care. HHS estimates that nationally, savings could reach more than $400 billion through the implementation of a national health information network.

Perhaps the greatest benefit of HIT is its potential to reduce medical errors. As is the case in other industries, technology in medicine will help to prevent the incidence of human error. A February 2008 *USA Today* article and an Auburn University study show that as Americans age, the projected odds of getting a prescription that results in a serious, health-threatening error is about 1 in 1,000. That could amount to 3.7 million such errors a year, based on 2006 national prescription volume. (*USA Today*. "Five-year-old Took Wrong Medication for Two Months." Brady, E. and McCoy, K., 2/12/08)

The HHS projects that medication errors alone cost the healthcare system $76 billion per year (Yasnoff). For example, one of the most common errors in medication use history occurs when a patient or other caregiver forgets to tell a physician or nurse about a medication that is taken at home; a computerized physician order entry system cannot detect this omission without linkage to a community pharmacy database, which could integrate the patient's medication history with the physician's electronic record for that patient. This all points to the need for a unified EHR to serve as a single source of comprehensive clinical information across settings.

By having patient data, including laboratory and radiographic results, instantly available to the patient and any provider of the patient's choice via an interconnected network, HIT improves the ability of health care professionals and patients to make more informed decisions and avoid providing duplicative and redundant services. Furthermore, reconciliation of medications will decrease the likelihood of omission errors when medications are included in a unified EHR. Thus, errors of omission and commission can be prevented; both resulting in savings and, even more importantly, enhanced patient safety.

HLC member companies have already demonstrated that medical errors can be reduced by deploying proven technologies, including bedside bar-coded medication administration systems, widespread e-prescribing, and secure online, "anytime, anywhere" access for physicians to critical patient medication information.

Widely-implemented, interoperable and effectively utilized HIT also maintains the capability to improve population health by enabling advances in critical, oftentimes lifesaving, efforts. For example, data which could assist in early detection of a bioterrorism event include many categories of information, much of which would be derived from hospital computer systems, clinical laboratories, electronic health record systems, medical examiner record-keeping systems, and 911 call center computers. Other efforts, such as monitoring the safety of drugs and devices through post-market safety surveillance, as well as linking interoperable standards to health care quality reporting efforts, are an important means to improving quality and value in our health care system.

Pressure is mounting for reform of current payment policy to encourage quality improvement, transparency and efficiency. Consequently, there is a growing need to measure the efficacy and efficiency of health care delivery. HLC believes the health care delivery system needs rapid adoption of HIT interoperability standards that not only facilitate the clinical management of an individual patient but that also support the ready aggregation of data for quality and safety measurement and reporting.

Currently, most EHRs cannot transmit quality data for reporting. As a result, hospitals must use a manual and resource intensive process to report mandatory quality data. It is not uncommon to see a nurse reviewing a patient record in an EHR, writing down the information needed and then entering that information into a quality reporting tool because there is no way to automatically extract the required data from the EHR to feed the quality reporting tool. To alleviate this problem, the federal government should require the adoption of transaction and semantic interoperability standards for the storage and transmission of data captured within EHRs. Further, the standard-format data captured in EHRs should be readily accessible to be transmitted to quality reporting systems.

Lastly, there is growing interest in comparative effectiveness research and evidence-based medicine to assist providers in evaluating the best care for patients. A well-functioning HIT system would be a crucial component of disseminating comparative effectiveness information to providers at the point of care. HIT tools such as Clinical Decision Support help providers gain easier access to the most current practice guidelines and evidence-based medicine information during patient encounters. Furthermore, initiatives aimed at chronic disease management are much more easily facilitated by an automated health care system.

Federal Funding to Spur Adoption of HIT

Given the benefits of HIT to the nation's health care system, HLC believes that it is critical that the federal government invest funds to promote the widespread implementation of HIT.

Though some providers have begun the transition to electronic medical records (EMR), most medical records are still stored on paper. The U.S. lags behind many other countries in its use of EMRs. Only 15 to 20 percent of U.S. physician offices and 20 to 25 percent of hospitals have adopted some version of an EMR system, and the majority of these systems can't effectively interconnect through networks to coordinate care with other health care providers. (RAND)

In 2003, HLC established a Technical Advisory Board, comprised of clinicians and others with information technology expertise within HLC and other organizations, to provide insights regarding their HIT implementation experiences. In this and other more recent surveys, the high cost of HIT systems is repeatedly cited as a barrier to effective implementation. In addition to the front-end cost of investment, there are significant initial and ongoing maintenance and operational costs for HIT, including software, hardware, training, upgrades, and maintenance. Systems are virtually unaffordable for those providers who do not have ready access to the operating capital needed for such an investment. This reality is especially prevalent among rural providers, who are most likely to need help overcoming the financial and workforce-based barriers to connecting their practices to a nationwide system.

To date, while there has been considerable discussion and desire to enact legislation that would provide this much-needed capital, Congress has yet to complete action. Investing in HIT through an economic recovery package will help lead the way toward a "recovery" of our nation's health care system. HLC believes that the federal government should provide a robust impetus to the nation's implementation of HIT through financial incentives and funding mechanisms to help providers defray the huge costs of acquiring and operating HIT. Congress has significant interest in doing so both as a major payer of health care, through the Medicare, Federal Employee Health Benefits Program, and other federal programs, and to further the quality of the nation's health at large. For example, as evidenced during natural disasters such as Hurricane Katrina, interoperable HIT is a critical component to successful public health responses during emergency situations.

While grants and contracts from the Agency for Healthcare Research and Quality (AHRQ) and the Office of the National Coordinator for Health Information Technology (ONCHIT) help to support the development of a national information network, we need to do more to get every provider using electronic health records now.

HLC advocates the implementation of multiple HIT funding mechanisms. These could include:

- payment rewards or "add-ons" for health care services administered in conjunction with the use of HIT;
- a revolving low-interest loan fund with debt forgiveness in accordance with specified criteria, such as long-term savings to the Medicare trust fund
- tax incentives for physicians, hospitals, and other health care entities;
- reimbursement incentives based on improved patient outcomes;
- matching private funds with public funds through grants from the HHS; and
- revising the exceptions to the physician self-referral (Stark) and anti-kickback rules that allow hospitals to share their HIT investment with physicians.

We look forward to working with the Committee to determine how Congress might best be able to assist in this regard.

It is important to note that funding initiatives need not be limited solely to promoting physician uptake of EHRs. HIT systems such as safe medication technologies, e-prescribing, telemedine, and educational and training initiatives will all need to be part of a successful strategy to digitize our health system. Expanded funding directed not only to physicians and hospitals, but also to other health care professionals who touch all aspects of the delivery of care supports a tangible move from reactive, episodic care to a fully-integrated continuum of care.

National Standards to Insure Interoperability

In the area of standards, several public and private sector initiatives are making great strides in identifying and developing HIT interoperability standards that will enable disparate systems to "speak the same language." The Health Information Technology Standards Panel (HITSP) has made considerable progress testing these standards, and the work of the Certification Commission for Health Information Technology (CCHIT) complements these efforts by certifying that products are compliant with criteria for functionality, interoperability and security. This will help reduce provider investment risks and improve user satisfaction.

Aside from cost, providers also routinely express concerns that systems they choose to purchase now could become second-rate or obsolete. Continuing the standards development and certification work that is already in progress can help assure them that systems they adopt now can be easily upgraded to facilitate ongoing interoperability.

HLC believes, first and foremost, that in setting national standards to ensure interoperability, we must also continue to encourage innovation in the field of standards development. We firmly believe that the private sector should work

collectively to develop a roadmap for effective health information exchange that specifies the priorities and the standards necessary to make such an exchange possible. The newly-announced National eHealth Collaborative, formerly the AHIC Successor, is poised to continue the important work that the American Health Information Community started. Such standards will foster smooth and efficient communications and cooperation, regardless of individual system structure or architecture. Among other things, this work should address the increasing need for data, connectivity, interface, and communications standards. The health care industry also needs standards for commonly accepted clinical definitions, vocabulary, and terminology. Currently, a great deal of data goes into systems, but little automatically comes out in a way that readily supports health care providers and researchers.

While it may seem appropriate to write standards-setting into statute, care should be taken to assure that existing activities are not duplicated or hampered by new efforts. The federal government can assist these activities by ensuring that all interested stakeholders are seated at these collaboratives (including those representing public entities) and that standards being developed align with the policy goals for national HIT. Harmonized technical standards to facilitate reporting quality measures, for example, would be one such requirement.

Privacy

With the development of electronic data exchange comes renewed concern over the privacy and security of health information. HLC has a longstanding involvement in the debate over health privacy and, through its chairing of the Confidentiality Coalition, played an integral role in the promulgation of the Health Insurance Portability and Accountability Act (HIPAA) Privacy and Security rules.

HLC strongly believes that engendering patient and consumer trust in EHR and other applications will be paramount to successful implementation of HIT. Thus, we continue to advocate for a balanced, consensus-driven approach to setting privacy policy as it relates to HIT. We recognize that, as we move towards widespread use of HIT, some aspects of the HIPAA Privacy Rule will need to be updated to meet these emerging privacy and security concerns. For example, meaningful notification of privacy or security breaches is an important improvement necessary to protect individuals whose identifiable health information has been compromised. We also have proposed that holders of personal health information not covered under HIPAA be held accountable to equitable and enforceable privacy standards.

Developing a multi-state, interoperable system depends not only on national technical standards but also on national uniform standards for confidentiality and security. Because the HIPAA Privacy Rule's preemption standard permits significant state variation, providers, clearinghouses and health plans are

required to comply with the federal law as well as many state privacy restrictions that differ to some degree from the federal HIPAA Privacy Rule.

We believe congressional action to establish a uniform federal privacy standard is vital in order to ensure the viability of a national health information network. State health privacy protections vary widely and are found in thousands of statutes, regulations, common law principles and advisories. Health information privacy protections can be found in a state's health code as well as its laws and regulations governing criminal procedure, social welfare, domestic relations, evidence, public health, revenue and taxation, human resources, consumer affairs, probate and many others. Virtually no state requirement is identical to the federal rule.

Addressing this issue appropriately will be essential to achieving the interoperability necessary to improve the quality and cost effectiveness of the health care system – while still assuring patients' confidence that their information will be kept private.

Conclusion

In looking at the original HIT recommendations that HLC developed and issued in 2004, it is clear that there has been progress since that time.

Legislation to facilitate greater adoption of HIT enjoys bipartisan support and continues to gain momentum. Senate action in the past two years suggests that we are close to reaching consensus on the details surrounding HIT policy, such as standard setting and privacy and security policy. We believe that legislation that would begin to build an HIT infrastructure offers Congress a clear and important opportunity to improve our health care system. By creating a dedicated funding source and facilitating the development, adoption, and use of interoperable standards, legislation can focus on areas in which Congress *must act* to remove barriers to widespread adoption.

HIT expansion alone will not enable us to close the gap between the health care system we have today and the one we are capable of achieving. We all agree that we need reforms to achieve greater quality for patients and value for our dollar. The electronic exchange of health information will be crucial to long term goals to overhaul our health care system. Working to build a virtual HIT infrastructure today will pay dividends over the long-term in the form of healthier Americans, safer care, and lower costs. For that reason, including significant funding in the economic recovery package to assist providers and others to adopt HIT would serve as an important down payment on the future of our nation's health and long-term economic sustainability.

The Healthcare Leadership Council appreciates this opportunity to testify on HIT. Any questions about my testimony or these issues can be addressed to me or to

Ms. Tina Grande, Senior Vice President for Policy, Healthcare Leadership Council (telephone 202-452-8700, e-mail tgrande@hlc.org).

Attachment 1 – Examples of HLC Member Organizations' Successes with
Health Information Technology

Aetna's ActiveHealth CareEngine(r)-powered personal health record (PHR)
helps over 8 million members manage and organize their health data so
that they can work with their physicians to make informed decisions.
Aetna will make this tool available to more members by the end of 2009.
Aetna has also partnered with RxHub and the National e-Prescribing
Patient Safety Initiative (NEPSI) to improve physician access to
decision-support information and e-prescribing technology.

Aetna was the first health insurer and one of the first employers to
sign the statement of support for the Department of Health and Human
Services' "Four Cornerstones of Value-Driven Health Care," which calls
for the development and use of HIT, as well as tools that provide
quality and pricing information to consumers. To that end, Aetna has
developed an innovative price and clinical quality transparency program
to provide members with doctor and facility specific information.

Aetna is one of the nation's leaders in health care, dental, pharmacy,
group life, and disability insurance, and employee benefits. They are
one of the nation's leading diversified health care benefits companies,
serving approximately 37.2 million people with information and resources
to help them make better informed decisions about their health care.

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Amerinet is a group purchasing organization that promotes quality health care
delivery and helps all types of providers more effectively manage expenses.
They specialize in solutions related to technology, clinical operations, data
management, executive-level decisions, and supply chain management.

An Amerinet member, the Virginia Mason (VM) Medical Center, is a private, non-
profit organization that offers a system of integrated health services made
possible through its large, multispecialty group practice of more than 480
physicians. Virginia Mason has been testing telemedicine services in rural areas
throughout Washington state and Alaska for over ten years, including a live,
interactive video feed between VM and other remote clinics in the Pacific

Northwest. This capability allows them to provide real-time information and store-and-forward communications related to a variety of medical fields, including radiology, dermatology, cardiology, and others, to a region that has been identified as lacking a sufficient health professional work force. VM is able to use this service to transmit radiological studies, consult on diagnosis and referral, and conduct pre- and post-surgical examinations.

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Ascension Health is the nation's largest Catholic and largest nonprofit health system, serving patients through a network of hospitals and related health facilities providing acute care services, long-term care, community health services, psychiatric, rehabilitation and residential care.

Spearheaded by Ascension Health, the Austin, Texas-based, Indigent Care Collaboration (ICC) has demonstrated the effectiveness of HIT in improving health care for the uninsured and underinsured. Drawing from funding through federal and foundation grants, this community collaborative built I-Care, an integrating information structure providing for a shared patient record. This HIT system enables the area safety net providers, including hospitals and outpatient clinics and health centers, to obtain on a real-time basis a record for each patient's previous health care encounter. It also permits the ICC to map patients and diagnoses for health care planning and research; document, monitor, and manage diseases in the population, and measures the effects of policy changes on populations in the local region. In addition to improving the health and lives of vulnerable patients, ICC has become a self-sustaining business model upon which other communities can draw for expertise and inspiration.

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BlueCross BlueShield of Tennessee is an independent, not-for-profit, locally governed health plan company that provides health insurance benefits to Tennessee business customers and plan members.

SharedHealth, an independent subsidiary of BlueCross BlueShield of Tennessee, is the largest public-private electronic health information exchange in the United States and has made TennCare the only Medicaid program in the country to convert all its beneficiaries to an electronic health record application at the point of care.

By replacing paper-based systems with advanced technologies, TennCare effectively links authorized clinicians and patients with secure, up-to-date information at the point of care via an encrypted web-based system, including previous medical visits, service utilization, lab results, medications, allergies, and immunizations. The system also allows physicians to e-prescribe and will soon have additional functionality related to chronic care management.

Recent third-party studies have indicated that consistent utilization of SharedHealth increases clinician efficiency by 17%, resulting in savings of approximately $59 per episode of care and $9 per medication prescribed electronically.

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Hospira is a global specialty pharmaceutical and medication delivery company dedicated to Advancing Wellness™ by developing, manufacturing and marketing products that help improve the productivity, safety and efficacy of patient care. To meet the needs of hospitals working to minimize errors, adhere to the best clinical practices, maintain continuity of care standards and fully utilize infusion devices, Hospira developed Hospira MedNet Software. Hospira MedNet Software is a server-based suite of applications designed to connect data from a hospital's drug information library to infusion devices throughout the hospital to monitor, control and provide reports at the device, group or system-wide levels.

The adoption by hospitals of "smart pumps," infusion pumps with safety software, helps to prevent medication errors at the patient's bedside. The system helps hospitals define medication dose limits and track intravenous drug delivery to help prevent errors. It involves hospital pharmacists with the rest of the hospital team to develop and program best-practice dose recommendations for the infusion of drugs into a database that can then be transferred to the pump. HLC members, **Cardinal Health** and **Baxter International**, also manufacture similar devices.

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The **Marshfield Clinic** is one of the largest private, multispecialty group practices in the United States today and includes over 750 physicians in 84 medical specialties and subspecialties located in over 40 centers throughout northern, central and western Wisconsin. Although Marshfield Clinic has become synonymous with the city of Marshfield, Wisconsin, the Clinic's "community" goes well beyond the immediate area, embracing nearly all of Wisconsin and much of Michigan's Upper Peninsula. Patients from every state in the nation and 25 foreign countries were seen in the Clinic system during fiscal year 2006.

As part of its participation in the three-year CMS Physician Group Practice (PGP) Demonstration, Marshfield Clinic has relied on substantial investments made in tools such as their long-established telemedicine initiative and an EHR. Using the data in the EHR at the point of care ultimately allowed clinicians to deliver higher quality care at a more efficient rate. CMS recently announced that Marshfield was successful over the first-year of the project in improving quality of care while controlling costs to Medicare.

Marshfield Clinic has been pioneering integrated computer technology for patient care for nearly 20 years. The Clinic is chartless as of 2007. Wireless tablet computers allow access to EMRs and prescription writing through an advanced electronic prescribing program called Medications Manager. Marshfield also employs an application called iList that allows providers to quickly identify and reach out to patients that have one of three chronic illnesses – diabetes, heart failure, or hypertension – yet do not meet all of their recommended health goals.

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Mayo Clinic is a non-profit medical practice dedicated to the diagnosis and treatment of virtually every type of complex illness. Mayo provides clinic and hospital services at its locations in Rochester, MN; Jacksonville, FL; and Phoenix and Scottsdale, AZ.

The Automation of the Clinical Practice (ACP) at Mayo Clinic in Jacksonville, Florida is a project undertaken in 1993 to encompass the computer-based patient record with the addition of the mechanisms for automated charging and order creation by physicians. This vision was crystallized and communicated as the "paperless" practice of medicine that would increase patient safety and improve physician effectiveness while at the same time driving down expenses. The last paper-based record was circulated in January 1996 and the integrated outpatient practice continues to the present day.

The Automated Clinical Practice program involves all clinical users. The areas that are automated now include most aspects of the practice and examples include:
   • An electronic medical record (EMR) including all clinical documents, orders, scheduling, and laboratory.
   • A fully electronic filmless radiology department with speech recognition for radiologist documentation.
   • An automated Intensive Care Unit with EMR integration and bedside medical device interfaces directly to the EMR.
   • Inpatient and outpatient surgery areas consisting of surgical scheduling, material management, and nursing documentation.

From this level of automation patient safety initiatives have been possible. For example:
   • Orders automatically generate task lists for nursing, respiratory, etc., in the hospital.
   • Automated fall risk assessment and Braden skin scale assessment are generated in the hospital.
   • A medical data warehouse allows free text searching against the entire repository of millions of documents in the EMR for patient care and research.
   • An infectious disease application allows bioterrorism surveillance and automated infection control monitoring.

Dictating notes shifted work from the physician and improved both legibility and medical record turnaround time. The system allowed for real time availability of clinical information (notes, Lab, X-ray, and other results), automatic checking for duplicate redundant orders, simultaneous access to the same patient chart, improved ability to answer ad hoc questions for patient calls, more timely response from physicians when patients have questions, and improved flow of information to the physician enabling him or her to have a more "complete" picture of what is known about the patient's condition at the time of the appointment. Savings to the organization have been significant.

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McKesson and their subsidiary, McKesson Provider Technologies, deliver vital pharmaceuticals, medical supplies, and HIT solutions that touch the lives of more than 100 million patients each day. McKesson is the world's largest healthcare services company and a leader in wholesale delivery of medicines and healthcare products.

Customers of McKesson Provider Technologies, a leader in the distribution and deployment of HIT solutions, have demonstrated the benefits of implementing HIT firsthand. One hospital that introduced bedside bar-code scanning of medications reduced its already-low medication error rate by 80 percent and sustained that rate for over ten years. Additionally, a clinic in the process of deploying an ambulatory EHR and e-prescribing system reduced nurse time spent on charts by 24 percent and increased time spent with patients by 16 percent. Similarly, transitioning to electronic charts at a rural medical center cut the average nurse daily paperwork by 1.5 hours. Examples like these and many more demonstrate the potential for HIT to improve the quality and efficiency of care, allowing clinicians to spend more time and resources on providing better care to patients and less time on burdensome paperwork.

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Pfizer is the world's largest research-based biomedical and pharmaceutical company, with corporate headquarters located in New York and major research and development locations in the United States and England.

Since March 2006, Pfizer has been working with a small group of other pharmaceutical companies, including other HLC member organizations, to evaluate and explore how clinical research could be improved by leveraging the National Health Information Network (NHIN) and other Health Information Exchanges through an effort called the NHIN Slipstream Project. This group explored many important ways that the exchange of health information could improve patient health through the research, development, and commercialization of new therapies, and determined that the three most

important areas of initial focus in the ONC NHIN process are: post-marketing drug safety surveillance, connecting patients to clinical trials, and establishing appropriate care standards through outcomes, pharmacoeconomic, and personalized medicine research.

Pfizer has also participated in the Cancer Biomedical Informatics Grid (caBIG), a voluntary network individuals and institutions to enable the sharing of data and tools related to cancer research. caBIG is a partnership between the National Cancer Institute (NCI) and the private sector to facilitate integration of clinical information and the growing volume of genomic and proteomic data for the purpose of advancing development of new therapies. In conjunction with 80 companies as well as NCI, NIH, and FDA, Pfizer is working on the CRIX (Clinical Research Information eXchange) initiative to expand the caBIG vision from cancer to other therapeutic areas. caBIG is being built on open source, open access, open development, and federation principles.