

July 2009

THE 2009 HEALTH INFORMATION TECHNOLOGY FOR ECONOMIC AND CLINICAL HEALTH ACT

SUMMARY

The Health Information Technology for Economic and Clinical Health Act (HITECH) is an important component of the federal economic stimulus package enacted by Congress in early 2009. Designed to promote the widespread adoption of health information technology (HIT), including the electronic sharing of clinical data among hospitals, physicians and other health care stakeholders, the Act is considered a crucial part of the health reform process. The implementation of health information technology, however, goes beyond electronic medical records. This article explains key provisions of the Act and offers insights into aspects of its implementation that will require careful consideration.

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009 (ARRA), more commonly referred to as the “economic stimulus package.” The new law addresses an array of measures affecting many sectors of the economy. Prominent among them is the Health Information Technology for Economic and Clinical Health (HITECH) Act, which promotes the widespread adoption of health information technology. The HITECH law supports the sharing of clinical data among hospitals, physicians and other health care stakeholders primarily through electronic health records (EHRs). It’s considered by many to be a crucial step in the health care reform process.

According to the Congressional Budget Office (CBO), the HITECH Act will cost \$38.4 billion between now and 2015, which will be used to advance the use of health information technology across the nation.¹ Funds will go toward two major initiatives:

- \$2.0 billion is allocated to codify the Office of the National Coordinator for Health Information Technology (ONCHIT) within the Department of Health and Human Services. This office is responsible for creating a nationwide health information technology infrastructure to improve health care quality and coordination of care and to set standards to ensure these goals are met.
- The remaining \$36.4 billion will go toward health information technology and infrastructure grants as well as incentives to doctors and hospitals for adopting *and using* the new technology.

The estimated \$36.4 billion in expenditures is expected to be offset by \$15.5 billion in Medicare and Medicaid program savings driven by the more widespread adoption of HIT, with the net cost of the program estimated at \$22.9 billion. (The \$15.5 billion in estimated savings are not projected to occur until 2016; most discussions of the cost of the Act accept these estimated savings at face value and focus on the cost of the program.)

BACKGROUND AND HISTORY

The HITECH Act builds on existing federal programs that encourage the adoption and use of health information technology. The ONCHIT was originally created by Executive Order in 2004 and charged with developing and implementing a strategic plan to guide the nationwide implementation of HIT in the public and private health care sectors. Its focus has been on developing standards that enable different HIT applications to communicate effectively with one another (referred to in technical circles as “interoperability”), establishing criteria for certifying that current and future HIT products meet those standards, ensuring the privacy and security of electronic health information and facilitating the creation of prototype health information networks.

Widespread adoption of health information technology could save the U.S. health systems more than \$81 billion annually.

Prior to the passage of the HITECH Act, the CBO predicted that about 45 percent of hospitals and 65 percent of physicians would have adopted HIT by 2019.² As a result of the new HITECH incentives, the CBO now estimates adoption rates closer to 70 percent for hospitals and 90 percent for physicians.³

A study by RAND Health found that such widespread adoption of HIT could save the U.S. health care system more than \$81 billion annually, reduce the incidence of adverse health care events and improve the overall quality of care.⁴

OBJECTIVES

The HITECH Act has four primary goals:

- By 2010, develop standards that simplify the exchange of electronic health information for use in improving quality and coordination of care.
- Build a HIT infrastructure and support its use through Medicare and Medicaid incentives that encourage doctors and hospitals to use HIT to electronically exchange patient health information. Investment in these programs will total \$38.4 billion.
- Generate savings of \$15.5 billion in government health care payouts through improvements in quality of care and care coordination as well as reductions in medical errors and duplicative care.
- Strengthen federal privacy and security laws to protect patient-identifiable health information from misuse and expand privacy protections and requirements under the Health Insurance Portability and Accountability Act (HIPAA).

By the end of the year, the Office of the National Coordinator for Health Information Technology will establish a transparent and open process for developing standards around the electronic exchange of information between doctors, hospitals, patients, health plans, the government and others.

The new law also establishes a voluntary certification process for health information technology products. The National Institute of Standards and Technology will provide for the testing of products to determine if they meet the national standards for the secure electronic exchange and use of health information. The new law, however, does not require that entities adopt or use the technology made available.

The objectives of the new law are ambitious. No matter how compelling new technology may be, getting users to invest in it, especially when it's not required by law, will be a challenge. Lawmakers addressed this challenge by including incentives in the plan.

CARROT AND STICK APPROACH

One of the most immediate barriers to widespread adoption of new technology is cost. While patients will benefit from better health, and insurers will benefit from lower costs, physicians and hospitals will pay more. Physicians and hospitals will incur costs to implement new technology and hospitals will likely experience lower revenues as lengths of stay decrease.

Physicians and hospitals will be eligible for financial incentives when they acquire and use the new technology. Those who don't begin using it by 2016 will be penalized.

To address this challenge, the HITECH law offers doctors and hospitals financial incentives to adopt the new technology. Payments will be distributed through the existing Medicare and Medicaid payment infrastructure. Those who choose not to adopt the technology will be subject to financial penalties beginning in 2016.

Incentives are based on a complex set of formulas that address such factors as qualification, amounts earned and percentage paid over specified timeframes. The law takes a “buy it and use it” rather than a “buy it and look at it” approach. Health care providers will need to make an initial investment in the technology and demonstrate they are using it before receiving an incentive payment.

Beginning in 2011:

- Physicians will be eligible for incentives (\$65,000 per physician for those who receive Medicaid payments and \$40,000 per physician for those who receive Medicare payments) over five years, after demonstrating the *meaningful use* of health information technology (e.g., by reporting quality measures). The Office of the National Coordinator for Health Information Technology is currently reviewing the definition of “meaningful use.” The law authorizes a 100% federal match for payments to certain qualifying Medicaid providers who acquire and use certified EHR technology.
- Hospitals will be eligible for base payments starting at \$2 million if they *use* health information technology.
- Federally qualified health centers, rural health clinics, children’s hospitals and others will be eligible for funding through the Medicaid program.

The new law specifies two key criteria for determining if physicians or hospitals qualify for the HIT incentives. In addition to demonstrating the meaningful use of health information technology (discussed above), they must demonstrate use of a *qualified or certified* EHR, characterized by the following:

- Electronic health records must include patient demographic and clinical health information, such as medical history and problem lists
- They must have the capacity to:
 - Provide clinical decision support
 - Support physician order entry
 - Capture and query information relevant to health care quality
 - Exchange electronic health information and integrate it with other sources

Incentive payments for physicians and hospitals will continue through 2015 but will be phased out over time. Eventually, Medicare payments will be reduced for physicians and hospitals that don't use certified electronic health records. Additional funds will be allocated to States for low-interest loans to help providers finance HIT and for grants to regional health information organizations to promote data sharing.

ADDITIONAL PRIVACY & SECURITY REQUIREMENTS

The HITECH Act expands current requirements under HIPAA to:

- Cover certain new entities, such as Personal Health Record vendors, as well as those working on behalf of providers and insurers (business associates) so they are subject to Federal privacy and security laws.
- Allow patients to request an audit trail showing all disclosures of their health information made through an electronic health record.
- Prohibit the sale of patient health information without the patient's authorization in certain circumstances.
- Require providers to obtain authorization from consumers before using their health information for certain marketing activities and allow consumers to opt out of fundraising communications.
- Increase penalties for violations of federal privacy and security laws and provide additional resources for enforcement and oversight activities.

The law also addresses the following:

- Stipulates that consumers must be notified if there has been a breach of their unencrypted health information or unauthorized disclosure or use of their health information.
- Provides additional guidance on the definition of "minimum necessary" (i.e., the amount of necessary information that should be disclosed) and calls for further guidance in regulations.
- Gives individuals a right to access portions of their personal information in an electronic format.
- Requires annual guidance on the Department's recommendations for effective technical safeguards to comply with the HIPAA Security Rule. Recommendations are provided on technologies intended to increase privacy of health information and enhance security.

There is widespread debate on the relative merits and value of the privacy provisions. Patient advocates hail it as a great victory, while industry groups fear it will lead to unintended consequences and add millions of dollars in administrative costs to an already expensive and highly regulated environment.

THE SOLUTION: MORE THAN DATA

Enactment of the HITECH Act is a major step toward the expanded use of electronic health records. The current dilemma concerns the extent to which data are collected, used and shared. Different forms of electronic medical records (e.g., x-rays, lab results) are in place today, albeit highly underused. As

C. Peter Waegemann, CEO of the Medical Records Institute said, “For 25 years, electronic medical records have been our number one priority on which billions of dollars have been spent, yet virtually no one uses them. Perhaps we are doing the wrong thing”.⁴

The underuse of electronic medical records is due to their reliance on an archaic communication infrastructure. Even the most sophisticated electronic health record products usually remain stranded in silos, even in integrated delivery systems, because they cannot “talk” to each other. “Interoperability” is essential to obtain the promised benefits of technology.

The challenge is that each doctor’s office represents its own, self-contained island of electronic information; health care providers outside that office may not be able to access a patient’s information or know how to request it. For example, an internal medicine specialist considering a drug therapy would want to know what other drugs the patient is taking and would benefit from having access to the patient’s medical information (e.g., patient’s primary physician, medication history, hospital records).

In this regard, it’s important to consider more than simply converting paper-based medical records into electronic records. We must also look at how the records will be stored, accessed and shared and how to create an environment of *interoperable health care* – not just interoperable information systems.

The effectiveness of care management depends on the ability of caregivers to communicate with consumers and each other in an efficient and timely manner.

The ideal health information technology system must include a communication infrastructure that gives health care providers and patients access to the health information needed to make care management decisions. Such decisions can only be made if all caregivers are able to review a patient’s information at the time of their interaction. The effectiveness of care management depends on the ability of caregivers to communicate with consumers and each other in an efficient and timely manner. Often, half a dozen people – physicians, pharmacists and health coaches – are expected to communicate about care for a mostly “well” patient. Far more are involved with someone who has a chronic disease.

The best health information technology solutions support cognitive decision-making and help doctors make evidence-based decisions. Under these systems, the quality of care increases and the cost of care decreases. An effective health information technology system must:

- Collect the data.
- Help users understand the data. A report on one patient might be cause for alarm whereas the same report on a different patient could be normal. It’s crucial that the system provide patient-specific information as well as an overall health profile to ensure an accurate context for decision-making.
- Process the data. Clinical studies show that, when doctors make the wrong decision, half the time it’s due to the amount and complexity of data. A health information technology system that can apply complex and intermingled rules and process the raw data (e.g., examine all the possible drug interactions and side effects of a planned course of care) is imperative to ensuring to safe and effective outcomes.
- Share data with patients. Individuals who can access and properly interpret results don’t need to visit their doctor’s office. The use of health information technology combined with cognitive decision support has been shown to decrease physician office visits by more than 21 percent. In addition, because 99 percent of chronic disease is managed in the home, having home access to critical health information can be invaluable to doctors and patients. Again, a critical feature is

“interoperability” – the ability of the various systems to communicate seamlessly with one another so genuine and real-time information sharing can take place regardless of the platform.

The HITECH Act does *not* automatically create the communication platform needed to support physicians and patients working together. The majority of HIT systems in use today provide a comprehensive patient record only as long as the patient gets care in a single provider’s office, within a given health system or when services are paid for by the same health plan, depending on who invested in the system. Electronic medical records don’t connect to the hundreds or thousands of individual data sources in a particular region that are necessary to generate a complete patient record.

Most medicine is practiced regionally, as doctors tend to aggregate around hospitals. This has led to the development of regional (hospital-based) health information organizations (or RHIOs) designed to capture health information in a more centralized manner, thereby addressing the problem of “data islands” in dissimilar physicians’ offices.

Regional health information organizations, however, have not been very successful. Although they centralize health information, there is competition among hospitals to secure a physician’s desktop and convince the physician to use *that single hospital’s* solution rather than the solution offered by a hospital across town.

The success of HIT will depend in part on solutions that address the centralization of health information without running afoul of these predictable market forces.

THE IDEAL SYSTEM

“Smart” systems deliver the most value to patients and doctors by capturing both clinical and claim data, creating an “electronic understanding” of the patient and applying evidence-based algorithms at the point of care that enable patients and their physicians to determine the most appropriate care under the circumstances. “Smart” system projects currently underway around the country include:

- **Health Information Exchange (HIE):** the capability to electronically move clinical information between dissimilar health care information systems in a consistent, standardized way. The goal of an HIE is to facilitate access to and retrieval of clinical data to provide safer, more timely, efficient, effective, equitable and patient-centered care. Although there are few operational HIEs, they are generally seen as a way to avoid the current challenge of uncommunicative silos and enable “HIT system A” to communicate with “HIT system B.”
- **E-Prescribing:** enables prescribers to electronically send an accurate, error-free and clearly written prescription directly to a pharmacy from the place where the patient is receiving care. The Medicare Modernization Act (MMA) of 2003 made e-prescribing optional for physicians and pharmacies, but required drug plans participating in the new prescription benefit to support electronic prescribing (e-prescribing). The data standards that facilitate e-prescribing are sufficiently complete to allow for expedited adoption of e-prescribing tools as part of HITECH.
- **Electronic Health Records:** an EHR is an individual patient’s medical record in a digital format. Electronic health record systems coordinate the storage and retrieval of individual records with the aid of computers. The records are typically accessed through a computer, often over a network.

An EHR may be made up of data from electronic medical records (EMRs) gathered from many locations and/or sources. Electronic health records often include data such as patient demographics, medical history (including provider notes), medicine and allergy lists (including immunization status), laboratory test results, radiology images, billing records and advanced health

care directives. Although electronic health records are still uncommon, their eventual deployment and interconnectivity can help to build a national electronic health information infrastructure in the United States.

- **Individual Health Record (IHR):** this is a relatively new concept – a “turbo-charged” version of the electronic health record. The IHR is a comprehensive patient health record that offers different “views” depending on who is accessing it. The record provides a view for patients (a “PHR”), a view for use by doctors (an “EHR”), integrated e-prescribing and an integrated data model/ontology.

In the IHR, the data architecture captures data, modeling and transforming it as it’s received. This means that virtually all data in the IHR is “understood” by the system, enabling a rules engine to apply clinical and business rules at a patient-specific level in real-time.

Because the system is built to “understand” the data, the IHR can apply cost and quality tools, such as rules derived from evidence-based medicine and business (payment) rules stipulated by health plans. The business rules allow changes in benefit structures and payment methodologies, which usually result in cost savings for health plans but implementation headaches for providers, to be implemented seamlessly and easily.

Efficiency gains are realized immediately by eliminating duplicate and/or conflicting therapies. Such duplications can amount to three to five percent of radiology testing and 10 percent or more of laboratory tests.⁵

CONCLUSION

The HITECH Act is an important step on the path to meaningful health care reform. It stands to improve the quality of health care, save lives and significantly reduce costs. It addresses the costs that physicians and hospitals will incur by providing incentives to adopt and use the technology. It also mandates more stringent safeguards for the protection of patient information, even though those same safeguards may also restrict use of the data.

The implementation of HITECH concepts must be thoughtfully and thoroughly considered, with particular attention to implementing “smart” systems that do more than “repave the cow paths” of the past. These new systems must consolidate comprehensive clinical health and claims information into patient-centric electronic records that are deployed in an interoperable set of systems that can communicate with one another and process necessary decision algorithms to achieve superior outcomes.

ABOUT THE WELLPOINT INSTITUTE OF HEALTH CARE KNOWLEDGE

The WellPoint Institute of Health Care Knowledge is a web-based publishing clearinghouse for health related research conducted by WellPoint and its subsidiary companies. The Institute regularly releases educational information in the form of reports, white papers and research summaries, with the goal of enhancing health care quality and value by providing facts and information to support informed health care decision-making. For more information, visit the WellPoint Institute of Health Care Knowledge at www.wellpoint.com/institute.

¹ Congressional Budget Office estimates in letter to Nancy Pelosi, Speaker of the House of Representatives, dated February 13, 2009.

² Congressional Budget Office estimates; “Budget Options, Volume 1: Health Care;” December, 2008.

³ Congressional Budget Office estimates in letter to Charles B. Rangel, Chairman of Committee on Ways and Means, House of Representatives, dated January 21, 2009.

⁴ RAND Research Brief RB-9136; RAND Health Congressional Newsletter September 2005.

⁵ Proprietary WellPoint research, “IHR Backgrounder,” Charles Kennedy, M.D., Vice President, Health Information Technology, WellPoint, dated January 2009.