U.S. Department of Health and Human Services

Health Information Technology Initiative

Major Accomplishments: 2004-2006

"In 2006, HHS achieved several major milestones to meet the President's call for most Americans to have access to electronic health records by 2014. These significant accomplishments will provide tangible value to health-care consumers – helping to reduce costs and medical errors with better information technology."

— Michael O. Leavitt
Secretary of Health and Human Services

Background: A Historical Perspective

Over the past 30 years, nearly every sector of the American economy has undertaken a sweeping transformation in the way information is collected, managed, and transmitted. The result has been consistently increased productivity and efficiency, and this shift has helped to secure America's place at the top of the economic leader board.

"By computerizing health records, we can avoid dangerous medical mistakes, reduce costs, and improve care."

—President George W. Bush, State of the Union Address, January 20, 2004

Yet today, health care—one of the most significant sections of the American economy—has not made this transformation. However, this is beginning to change.

Today, evidence that use of secure, standards-based, electronic health records can improve patient care and increase administrative efficiency is overwhelming.[1] This use of interoperable health information technology (IT) will benefit individuals and the health-care system as a whole in profound ways.

Benefits to the health-care consumer:

- Higher quality care
- Reduction in medical errors
- Fewer duplicate treatments and tests
- Decrease in paperwork
- Lower health-care costs
- Constant access to health information
- Expansion of access to affordable care

Benefits to public health:

- Early detection of infectious disease outbreaks around the country
- Improved tracking of chronic disease management
- Ability to gather de-identified data for research purposes
- Evaluation of health care based on value, enabled by the collection of price and quality information that can be compared

These benefits led President Bush to call for most Americans to have access to an interoperable electronic health record by 2014, in his 2004 Technology Agenda, Promoting Innovation and Competitiveness. Since that time, HHS has made rapid and significant progress to meet this goal.

2004: Laying the Foundation

The President, by Executive Order, established the position of National Coordinator for Health Information Technology.[2] The National Coordinator for Health IT is the chief advisor to the Secretary of HHS on the actions needed to meet the President's call for widespread availability of secure, interoperable health IT.

In November, 2004, the National Coordinator issued a request for information to gather public input on the development of a Nationwide Health Information Network (NHIN). In analyzing the more than 500 responses in early 2005, the Office of the National Coordinator for Health IT (ONC) found that a lack of uniform standards was a key obstacle to the success of a NHIN.

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1. Walker, Pan, Johnston, Adler-Milstein, Bates, and Middleton: Health Affairs Online: January, 2005.
2. Presidential Executive Order 13335, April 27, 2004.

2005: Initial Steps and Progress

More than 1.5 million Americans are injured every year by drug errors in hospitals, nursing homes, and doctors' offices. On average, a hospitalized patient is subject to at least one medication error per day.

— Preventing Medication Errors, Institute of Medicine, July 20, 2006

American Health Information Community (AHIC)

In 2005, Secretary Leavitt announced the formation of the American Health Information Community (AHIC), a federal advisory committee made up of public and private sector leaders who represent a broad spectrum of health-care stakeholders. The AHIC was established to make recommendations to the Secretary on how to accelerate adoption of interoperable electronic health IT in a smooth, market-led way.

HHS Contracts

The Office of the National Coordinator for Health Information Technology (ONC) was established within the Office of the Secretary at HHS in 2005. That year, the Department awarded nine contracts to conduct work in several key areas of the health IT initiative:

- **Health Information Technology Standards Panel (HITSP)** – To harmonize industry-wide health IT standards
- **Certification Commission for Healthcare Information Technology (CCHIT)** – To develop a certification process for health IT products
- **Privacy and Security** – To enhance safety of health information by addressing variations in policies and State laws affecting privacy and security practices
- **Anti-Fraud for Electronic Health Records** – To identify ways to enhance health-care anti-fraud activities with the use of health information technology
- **Nationwide Health Information Network (NHIN)** – To create prototype architectures for widespread health information exchange
- **Adoption of Electronic Health Records –** To develop a standardized way to measure adoption of electronic health records
- **Clinical Decision Support –** To form a group of qualified experts to advise federal activities concerning clinical decision support
- **Health Information Exchange**[3] – To develop consensus for best-practice guidelines from existing, state-level efforts to exchange health information
- **Hurricane Katrina Information Network and Digital Health Information Recovery Project** – To foster widespread use of interoperable health IT in Gulf Coast regions affected by hurricanes in 2005

HHS' progress on health IT in 2005 provided momentum to produce many tangible results in 2006.

3. This work was initially funded by the HHS Agency for Healthcare Quality and Research.

2006: Major Accomplishments

HHS' many accomplishments on the health IT initiative in 2006 are already beginning to provide tangible value to health-care consumers today, while continuing to build momentum for the rapid advancement of interoperable health IT into the future.

American Health Information Community (AHIC)

In May, 2006, the American Health Information Community (AHIC) delivered its first set of recommendations to the Secretary of HHS. The Secretary officially accepted these unanimous recommendations in four work group areas:

- **Consumer Empowerment –** To create a consumer-directed and secure electronic health-care registration information and medication history for patients
- **Chronic Care –** To use secure messaging, such as email, for communication between patients and their health-care providers
- **Electronic Health Records –** To create standardized, secure records of past and current laboratory test results that is accessible by health professionals
- **Bio-surveillance –**To enable the transfer of standardized and anonymized health data to authorized public health agencies within 24 hours

Standards Harmonization

In August, the AHIC recommended three sets of "Interoperability Specifications" approved by the Health Information Technology Standards Panel (HITSP)—a standards panel established by the American National Standards Institute (ANSI)—an organization contracted by HHS to develop a process for harmonizing hundreds of competing standards. Secretary Leavitt accepted these standards that form the basis of interoperability. He also accepted the AHIC's recommendation for federal health-care delivery systems, which provide direct patient care, to develop an adoption plan to integrate these standards into their software systems by December, 2007.

In 2000, the Institute of Medicine estimated that between 44,000 and 98,000 Americans die each year from preventable medical errors.

—To Err Is Human: Building a Safer Health System, Institute of Medicine, 2000

Executive Order on Value-Driven Health Care

In August, 2006, the President issued an Executive Order committing federal departments and agencies that purchase and deliver health care to require the use of health IT that is based on interoperability standards recognized by the Secretary of HHS as new upgrades or systems are implemented within the federal system.[4]

Product Certification

In 2006, the Certification Commission for Healthcare Information Technology (CCHIT) certified the first 37 ambulatory—or clinician office-based—electronic health record products. The CCHIT seal of approval is awarded to products that meet base-line criteria for functionality, security, and interoperability. This certification encourages adoption of health IT by assuring providers that their systems can be a part of the future of health IT.

4. Presidential Executive Order 13410, August 22, 2006. Federal departments and agencies are required by the Executive Order to act to the extent permitted by law.

2006: Major Accomplishments (contd)

Changes to Regulations

HHS issued new regulations to allow certain arrangements in which a hospital or other health-care entity donates health IT and training services to health-care providers.[5] These new regulations will accelerate adoption by health-care providers by giving them access to increased financial assistance in implementing health IT.

Health IT Adoption Measurement

Through a contract with HHS, George Washington University conducted a health IT adoption survey of physician offices to establish the baseline for current physician use of electronic health records at 10 percent. The survey also provided the criteria necessary to measure success in encouraging further adoption.

"In nearly one in seven visits, [primary care clinicians] reported that clinical information important for the patients care was missing.... Clinicians who reported having full [electronic medical records] were significantly less likely to report missing clinical information."

— Missing Clinical Information During Primary Care Visits, The Journal of the American Medical Association, February, 2005

Results

These accomplishments will encourage broad, standards-based adoption of health IT that will improve the health and health care of all Americans. Already, markets are responding to federal leadership.

1. Just one month after HHS published rules allowing for increased donations of interoperable health IT to providers, health IT vendors were reporting substantial increases in buyer interest.

2. The CCHIT received and evaluated dozens of applications for product certification as buyer interest in certified systems dramatically increased.

3. Nearly 200 public and private health-care purchasers, including several States, counties, and cities, have agreed to implement the principles of the President's Value-Driven Health Care Executive Order in their health-care procurement programs. This includes the first corner stone: to do business exclusively with those who adopt health IT systems that use interoperability standards recognized by the Secretary of HHS as their systems are updated.

2007: Next Steps

HHS accomplishments leading up to 2007 have laid the foundation of a robust health IT initiative that is already bringing value to health-care consumers and providers. With the organizations and contracts in place and a standards process established, additional progress for the year ahead will be rapid.

Nationwide Health Information Network (NHIN)

Four prototype architectures for a Nationwide Health Information Network (NHIN) were delivered in January, 2007. These prototypes were developed with functional requirements and security and business models for health information exchange. Their delivery marks the beginning of the next phase of NHIN work – to connect the prototypes and state and regional health information exchange efforts in "trial implementations" that will make up the "networks of networks" of the NHIN.

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5. Links to the relevant regulations are available here: www.oig.hhs.gov/fraud/safeharborregulations.html and www.cms.hhs.gov/physicianselfreferral/05_Regulations.asp

2007: Next Steps (contd)

American Health Information Community (AHIC)

The American Health Information Community formed workgroups in 2006 that will make recommendations to the AHIC in the following areas:

- **The Confidentiality, Privacy and Security Workgroup** – To address privacy and security policy issues for nation-wide use of health IT
- **The Quality Workgroup –** To identify the role of health IT in the development of health-care quality measures, their automation, and the use of clinical decision support to improve their performance
- **The Personalized Health Care Workgroup** – To plan for standardized integration of genomic test information into electronic health records

A study found that 80 percent of medical errors began with miscommunication, missing or incorrect information about patients, or lack of access to patient records.

—A String of Mistakes: The Importance of Cascade Analysis in Describing, Counting, and Preventing Medical Errors, Annals of Family Medicine, 2004

Privacy and Security across State Lines

To ensure that every patient's privacy is consistently protected no matter where they receive care, a regular forum will convene state leaders to reach consensus on cross-border issues of privacy, security, physician licensure and health-care practice, and the states' roles in health information exchange. In addition, a nation-wide summary of state privacy and security assessments, solutions, and implementation plans will be presented and used to consider national policy issues.

The Federal Health Care Delivery System

Plans will be completed across the federal government to implement the requirements of the President's 2006 Executive Order on Value-Driven Health Care in a consistent and effective manner. These plans will apply to the federal government's adoption of interoperable health IT within its own delivery system and the contracts it negotiates.

Product Certification

The Certification Commission for Healthcare Information Technology will expand certification to inpatient—or hospital—electronic health record products. This will significantly increase patients' (and their subsequent providers') access to the health information generated during a hospitalization.

Summary

Each of these efforts is significant individually, and taken together, they will accelerate adoption of interoperable health IT and will form the basis of a health-care system that provides better care at lower cost to more Americans.

To learn more about HHS' health IT initiative, visit:
www.hhs.gov/healthit