



Testimony

Before the Subcommittee on Federal  
Workforce and Agency Organization,  
Committee on Government Reform,  
House of Representatives

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For Release on Delivery  
Expected at 1:00 p.m. CDT  
Friday, September 1, 2006

HEALTH INFORMATION  
TECHNOLOGY

HHS is Continuing Efforts  
to Define Its National  
Strategy

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G A O

Accountability \* Integrity \* Reliability

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Highlights of GAO-06-1071T, a testimony before the Subcommittee on Federal Workforce and Agency Organization, Committee on Government Reform, House of Representatives

## Why GAO Did This Study

As GAO and others have reported, the use of information technology (IT) has enormous potential to improve the quality of health care and is critical to improving the performance of the U.S. health care system. Given the federal government's role in providing health care in the U.S., it has been urged to take a leadership role in driving change to improve the quality and effectiveness of health care, including the adoption of IT. In April 2004, President Bush called for widespread adoption of interoperable electronic health records within 10 years and issued an executive order that established the position of the National Coordinator for Health Information Technology. A National Coordinator within the Department of Health and Human Services (HHS) was appointed in May 2004 and released a framework for strategic action two months later. In May 2005, GAO recommended that HHS establish detailed plans and milestones for each phase of the framework and take steps to ensure that its plans are followed and milestones are met.

GAO was asked to identify progress made by HHS toward the development and implementation of a national health IT strategy. To do this, GAO reviewed prior reports and agency documents on the current status of relevant HHS activities.

[www.gao.gov/cgi-bin/getrpt?GAO-06-1071T](http://www.gao.gov/cgi-bin/getrpt?GAO-06-1071T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact David A. Powner at (202) 512-9286 or [pownerd@gao.gov](mailto:pownerd@gao.gov).

# HEALTH INFORMATION TECHNOLOGY

## HHS is Continuing Efforts to Define Its National Strategy

### What GAO Found

In late 2005, to help define the future direction of a national strategy, HHS awarded several health IT contracts and formed the American Health Information Community, a federal advisory committee made up of health care stakeholders from both the public and private sectors. Through the work of these contracts and the community, HHS and its Office of the National Coordinator for Health IT have made progress in five major areas associated with the President's goal of nationwide implementation of health IT (see table).

#### Five Areas of Progress and Supporting Activities

Areas of progress	Activities
Advancing use of electronic health records	<ul style="list-style-type: none"> <li>Defined initial certification criteria for certain electronic health records and certified 22 vendors' products.</li> <li>Presented functional requirements for inclusion of patient information into electronic health records.</li> <li>Initiated work to advance the use of electronic health records to rebuild medical records following disasters.</li> </ul>
Establishing interoperability standards for a health information exchange	<ul style="list-style-type: none"> <li>American National Standards Institute Health IT Standards Panel selected 90 interoperability standards for areas such as electronic health records and public health detection and reporting.</li> <li>Coordinated with the National Institute for Standards and Technology to align federal and private sector standards for interoperable health IT.</li> </ul>
Developing prototypes of a nationwide health information network	<ul style="list-style-type: none"> <li>Awarded contracts for developing prototypes for a national network to four contractors.</li> <li>Proposed more than 1000 functional requirements.</li> <li>Held the first nationwide health information forum.</li> </ul>
Addressing privacy and security issues associated with the nationwide exchange of health information	<ul style="list-style-type: none"> <li>Contracted with 34 states and territories to perform assessments of the impact of policies and laws on security and privacy practices.</li> <li>Selected standards to help ensure privacy and confidentiality.</li> <li>Formed a new workgroup to specifically address privacy and security policy issues.</li> <li>Made recommendations covering topics that are central to challenges for protecting health information privacy in a national health information exchange environment.</li> </ul>
Integrating public health systems into a national network	<ul style="list-style-type: none"> <li>Made recommendations to help support sharing of clinical care data with local, state, and federal biosurveillance programs, including the development of materials for public education on benefits to public health and national security, and the protection of patient confidentiality.</li> <li>Selected information exchange standards for sharing clinical health information with public health.</li> </ul>

Source: GAO analysis of HHS data

These activities and others are being used by the Office of the National Coordinator for Health IT to continue its efforts to complete a national strategy to guide the nationwide implementation of interoperable health IT. Since the release of its initial framework in 2004, the office has defined objectives and high-level strategies for accomplishing its goals. Although HHS agreed with GAO's prior recommendations and has made progress in these areas, it still lacks detailed plans, milestones, and performance measures for meeting the President's goals.

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Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to comment on federal efforts to advance the use of information technology (IT) for health care delivery and public health. As we and others have reported, the use of IT has enormous potential to improve the quality of health care and is critical to improving the performance of the U.S. health care system.

Recognizing the potential value of IT in public and private health care systems, the federal government has been working to promote the nationwide use of health IT.<sup>1</sup> In April 2004, President Bush called for widespread adoption of interoperable electronic health records within 10 years and issued an executive order<sup>2</sup> that established the position of the National Coordinator for Health Information Technology within the Department of Health and Human Services (HHS). The National Coordinator's responsibilities include the development and implementation of a strategic plan to guide the nationwide implementation of interoperable health IT in both the public and private sectors.

At your request, today we will discuss progress made by HHS and its Office of the National Coordinator for Health IT toward the development and implementation of a national health IT strategy. In preparing this statement, we reviewed agency documents on the current status of HHS's activities related to a national health IT strategy and supplemented our analysis with interviews of agency officials. We also summarized prior GAO reports. Our work was performed in accordance with generally accepted auditing standards.

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<sup>1</sup> Health IT is the use of technology to electronically collect, store, retrieve, and transfer clinical, administrative, and financial health information.

<sup>2</sup> Executive Order 13335, *Incentives for the Use of Health Information Technology and Establishing the Position of the National Health Information Technology Coordinator* (Washington, D.C.: Apr. 27, 2004).

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## Results in Brief

HHS and its Office of the National Coordinator for Health IT have made progress through the work of the American Health Information Community<sup>3</sup> and several recently-awarded contracts<sup>4</sup> in five major areas: (1) defining certification criteria for and certifying electronic health records, (2) identifying interoperability standards to facilitate the exchange of patient data, (3) defining requirements for the development of prototypes for the Nationwide Health Information Network, (4) addressing privacy and security issues associated with the nationwide exchange of health information, and (5) taking steps to integrate public health into a nationwide health information exchange. Specifically, certification criteria for ambulatory electronic health records<sup>5</sup> have been defined and 22 electronic health records vendors have achieved certification for their products. Additionally, 90 interoperability standards have been selected for areas such as electronic health records and public health detection and reporting, and functional requirements for a nationwide health information network have been proposed. The American Health Information Community has also formed a workgroup to specifically address confidentiality and security issues relevant to a nationwide health information exchange.

These activities and others are being used by the Office of the National Coordinator for Health IT to continue its efforts to complete a national strategy to guide the nationwide implementation of interoperable health IT. Since the release of its initial framework in 2004, the office has defined objectives and high-level strategies for accomplishing its goals. However, while HHS has

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<sup>3</sup> The American Health Information Community is a federally-chartered commission made up of representatives from both the public and private health care sectors.

<sup>4</sup> In late 2005, HHS awarded several contracts to address a range of issues important for developing a health IT infrastructure, such as advancing the use of electronic health records, selecting health IT standards, developing prototypes of a national network, and defining privacy and security policies.

<sup>5</sup> Ambulatory electronic health records are records of medical care that includes diagnosis, observation, treatment, and rehabilitation that is provided on an outpatient basis. Ambulatory care is given to persons who are able to ambulate, or walk about.

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made progress in these areas, it still lacks detailed plans, milestones, and performance measures for meeting the President's goals.

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## Background

Studies published by the Institute of Medicine and others have indicated that fragmented, disorganized, and inaccessible clinical information adversely affects the quality of health care and compromises patient safety. In addition, long-standing problems with medical errors and inefficiencies increase costs for health care delivery in the United States. With health care spending in 2004 reaching almost \$1.9 trillion, or 16 percent, of the gross domestic product, concerns about the costs of health care continue. As we reported last year, many policy makers, industry experts, and medical practitioners contend that the U.S. health care system is in a crisis.<sup>6</sup>

Health IT provides a promising solution to help improve patient safety and reduce inefficiencies. The expanded use of health IT has great potential to improve the quality of care, bolster the preparedness of our public health infrastructure, and save money on administrative costs. As we reported in 2003, technologies such as electronic health records and bar coding of certain human drug and biological product labels have been shown to save money and reduce medical errors.<sup>7</sup> For example, a 1,951-bed teaching hospital reported that it realized about \$8.6 million in annual savings by replacing outpatient paper medical charts with electronic medical records. This hospital also reported saving more than \$2.8 million annually by replacing its manual process for managing medical records with an electronic process to provide access to laboratory results and reports. Health care organizations also reported that IT contributed other benefits, such as shorter hospital stays, faster

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<sup>6</sup> GAO, *21<sup>st</sup> Century Challenges: Reexamining the Base of the Federal Government*, [GAO-05-325SP](#) (Washington, D.C.: February 2005).

<sup>7</sup> GAO, *Information Technology: Benefits Realized for Selected Health Care Functions*, [GAO-04-224](#) (Washington, D.C.: Oct. 31, 2003).

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communication of test results, improved management of chronic diseases, and improved accuracy in capturing charges associated with diagnostic and procedure codes. However, according to HHS, only a small number of U.S. health care providers have fully adopted health IT due to significant financial, technical, cultural, and legal barriers such as a lack of access to capital, a lack of data standards, and resistance from health care providers.

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## Federal Government's Role in Health Care

According to the Institute of Medicine, the federal government has a central role in shaping nearly all aspects of the health care industry as a regulator, purchaser, health care provider, and sponsor of research, education, and training. Seven major federal health care programs, such as Medicare and Medicaid, provide health care services to approximately 115 million Americans. According to HHS, federal agencies fund more than a third of the nation's total health care costs. Table 1 summarizes the programs and number of citizens who receive health care services from the federal government and the cost of these services.

**Table 1: Beneficiaries and Expenditures in Major Federal Health Care Programs for Fiscal Year 2004**

Federal agency	Program	Beneficiaries	Expenditure (in billions)
HHS	Medicare	42 million elderly and disabled beneficiaries	\$309
HHS	Medicaid	43.7 million low-income persons	276.8 (joint federal and state)
HHS	State Children's Health Insurance Program	5.8 million children <sup>a</sup>	6.6 (joint federal and state)
HHS	Indian Health Service	1.8 million Native Americans and Alaska Natives	3.7
Veterans Affairs	Veterans Health Administration	5.2 million veterans	26.8
Department of Defense	Tricare Program	8.3 million active-duty military personnel and their families, and military retirees	30.4
Office of Personnel Management	Federal Employees Health Benefit Program	8 million federal employees, retirees, and dependents	27

Source: HHS, VA, DOD, and OPM budget documents.

<sup>a</sup>Based on fiscal year 2003 data.

Given the level of the federal government's participation in providing health care, it has been urged to take a leadership role in driving change to improve the quality and effectiveness of medical care in the United States, including an expanded adoption of IT.

In April 2004, President Bush called for the widespread adoption of interoperable electronic health records within 10 years and issued an executive order<sup>8</sup> that established the position of the National Coordinator for Health Information Technology within HHS. The National Coordinator's responsibilities include the development and

<sup>8</sup> Executive Order 13335.

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implementation of a strategic plan to guide the nationwide implementation of interoperable health IT in both the public and private sectors. The first National Coordinator was appointed in May 2004,<sup>9</sup> and two months later HHS released *The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care—Framework for Strategic Action*, the first step toward the development of a national strategy. The framework described goals for achieving nationwide interoperability of health IT and actions to be taken by both the public and private sectors to implement a strategy. Just last week, President Bush issued an executive order calling for federal health care programs and their providers, plans, and insurers to use IT interoperability standards recognized by HHS.<sup>10</sup>

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## Need for a National Strategy and Greater Interoperability

In the summer of 2004, we testified on the benefits that effective implementation of IT can bring to the health care industry and the need for HHS to provide continued leadership, clear direction, and mechanisms to monitor progress in order to bring about measurable improvements.<sup>11</sup> Last year, we reported that HHS, through the Office of the National Coordinator for Health IT, had taken a number of actions toward accelerating the use of IT to transform the health care industry. To further accelerate the adoption of interoperable health information systems, we recommended that HHS establish detailed plans and milestones for meeting the goals of its framework for strategic action and take steps to ensure that those plans are followed and milestones are met.<sup>12</sup> The department agreed with our recommendation.

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<sup>9</sup> This position was vacated by the first national coordinator in May 2006. HHS is currently in the process of conducting a nationwide search for a new national coordinator and a deputy national coordinator.

<sup>10</sup> *Executive Order: Promoting Quality and Efficient Health Care in Federal Government Administered or Sponsored Health Care Programs* (Washington, D.C.: Aug. 22, 2006).

<sup>11</sup> GAO, *Health Care: National Strategy Needed to Accelerate the Implementation of Information Technology*, [GAO-04-947T](#) (Washington, D.C.: July 14, 2004).

<sup>12</sup> GAO, *Health Information Technology: HHS is Taking Steps to Develop a National Strategy*, [GAO-05-628](#) (Washington, D.C.: May 27, 2005).

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We also reported in June 2005 that challenges associated with major public health IT initiatives still need to be overcome to strengthen the IT that supports the public health infrastructure.<sup>13</sup> Federal agencies face many challenges in their efforts to improve the public health infrastructure, including (1) the integration of current initiatives into a national health IT strategy and federal architecture to reduce the risk of duplicative efforts, (2) development and adoption of consistent standards to encourage interoperability, (3) coordination of initiatives with state and local agencies to improve the public health infrastructure, and (4) overcoming federal IT management weaknesses to improve progress on IT initiatives. To address these challenges, we recommended that HHS align federal public health initiatives with the national health IT strategy and federal health architecture, coordinate with state and local public health agencies, and continue federal actions to encourage the development and adoption of data standards.

Last September, we testified about the importance of defining and implementing data and communication standards to speed the adoption of interoperable IT in the health care industry.<sup>14</sup> Hurricane Katrina highlighted the need for interoperable electronic health records as thousands of people were separated from their health care providers and their paper medical records were lost. As we have noted, standards are critical to enabling this interoperability. Although federal leadership has been established to accelerate the use of IT in health care, we testified that several actions<sup>15</sup> were still needed to position HHS to further define and implement relevant standards. Otherwise, the health care industry will continue to be plagued with incompatible systems that are incapable of exchanging

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<sup>13</sup> GAO, *Bioterrorism: Information Technology Strategy Could Strengthen Federal Agencies' Abilities to Respond to Public Health Emergencies*, [GAO-03-139](#) (Washington, D.C.: May 30, 2003); GAO, *Information Technology: Federal Agencies Face Challenges in Implementing Initiatives to Improve Public Health Infrastructure*, ([GAO-05-308](#)) Washington, D.C.: June 10, 2005).

<sup>14</sup> GAO, *Health Care: Continued Leadership Needed to Define and Implement Information Technology Standards*, [GAO-05-1054T](#) (Washington, D.C.: Sept. 29, 2005).

<sup>15</sup> These actions included the lack of mechanisms for better agency coordination of the various standards efforts, incomplete milestones associated with these efforts, and no mechanism to monitor the implementation of standards across the health care industry.

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medical information that is critical to delivering care and responding to public health emergencies.

In March 2006, we testified before this subcommittee<sup>16</sup> on HHS's continued efforts to move forward with its mission to guide the nationwide implementation of interoperable health IT in the public and private health care sectors. We identified several steps taken by the department, such as the establishment of the organizational structure and management team for the Office of the National Coordinator for Health IT under the Office of the Secretary and the formation of a public-private advisory body—the American Health Information Community—to advise HHS on achieving interoperability for health information exchange. The community, which is co-chaired by the Secretary of HHS and the former National Coordinator for Health IT, identified four breakthrough areas<sup>17</sup> — consumer empowerment, chronic care, biosurveillance, and electronic health records—and formed workgroups intended to make recommendations for actions in these areas that will produce tangible results within a one-year period. Subsequently, in May 2006 the workgroups presented 28 recommendations to the American Health Information Community that address standards, privacy and security, and data-sharing issues.

We also reported in March 2006<sup>18</sup> that HHS—through the Office of the National Coordinator for Health IT— awarded \$42 million in contracts that address a range of issues important for developing a robust health IT infrastructure, such as an increasing number of health care providers adopting electronic health records, definitions of health information standards being developed, architectural definitions for a national network, and the development and implementation of privacy and security policies. HHS intends to use the results of the contracts and recommendations from the

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<sup>16</sup> GAO, *Health Information Technology: HHS is Continuing Efforts to Define a National Strategy*, [GAO-06-346T](#) (Washington, D.C.: Mar. 15, 2006).

<sup>17</sup> Breakthrough areas are components of health care and public health that can potentially achieve measurable results in 2 to 3 years.

<sup>18</sup> [GAO-06-346T](#).

American Health Information Community proceedings to define the future direction of a national strategy. In March, the National Coordinator told us that he intended to release a strategic plan with detailed plans and milestones later this year. The contracts are described in table 2.

**Table 2: Health IT Contracts Awarded by HHS's Office of the National Coordinator**

<b>Contract</b>	<b>Date awarded</b>	<b>Duration</b>	<b>Cost (in millions)</b>	<b>Description</b>
American Health Information Community Program Support	September 2005	1 year	\$0.8	To provide assistance to the National Coordinator in convening and managing the meetings and activities of the community to ensure that the health IT plan is seamlessly coordinated.
Standards Harmonization Process for Health IT	September 2005	1 year	3.2	To develop and test a process for identifying, assessing, endorsing, and maintaining a set of standards required for interoperable health information exchange.
Compliance Certification Process for Health IT	September 2005	1 year	2.7	To develop and evaluate a compliance certification process for health IT, including the infrastructure components through which these systems interoperate.
Privacy and Security <sup>a</sup>	September 2005	1½ years	17.5 (Increased by \$6 million in August 2006 to include additional studies)	To assess and develop plans to address variations in organization-level business policies and state laws that affect privacy and security practices that may pose challenges to an interoperable health information exchange.
Nationwide Health Information Network Prototypes	November 2005	1 year	18.6 (4 contracts)	To develop and evaluate prototypes for a nationwide health information network architecture to maximize the use of existing resources such as the Internet to achieve widespread interoperability among software applications, particularly electronic health records. These contracts are also intended to spur technical innovation for nationwide electronic sharing of health information in patient care and public health settings.
Measuring the Adoption of Electronic Health Records	September 2005	2 years	1.8	To develop a methodology to better characterize and measure the state of electronic health records adoption and determine the effectiveness of policies aimed at accelerating adoption of electronic health records and interoperability.
Gulf Coast Electronic Digital Health Recovery	September 2005	1 year	3.7	To plan and promote the widespread use of electronic health records and digital health information recovery in the Gulf Coast regions affected by hurricanes last year.

Source: HHS Office of the National Coordinator for Health Information Technology.

<sup>a</sup>Jointly managed by the Agency for Healthcare Research and Quality and the Office of the National Coordinator.

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## HHS Is Continuing Efforts to Advance the Nationwide Implementation of Health IT and Complete a National Strategy

HHS and its Office of the National Coordinator for Health IT have made progress through the work of the American Health Information Community and several contracts in five major areas: (1) advancing the use of electronic health records, (2) establishing standards to facilitate the exchange of patient data, (3) defining requirements for the development of prototypes of the Nationwide Health Information Network, (4) incorporating privacy and security policy, practices, and standards into the national strategy, and (5) integrating public health into nationwide health information exchange.

These activities and others are being used by the Office of the National Coordinator for Health IT to continue its efforts to complete a national strategy to guide the nationwide implementation of interoperable health IT. Since the release of its initial framework in 2004, the office has taken additional steps to define a complete national strategy, building on its earlier work. However, while HHS has made progress in these areas, it still lacks detailed plans, milestones, and performance measures for meeting the President's goals.

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### HHS Is Advancing the Use of Electronic Health Records

HHS has made progress toward advancing the adoption of electronic health records by defining initial certification criteria for ambulatory electronic health records. The Certification Committee for Health IT,<sup>19</sup> which was awarded the Compliance Certification Process for Health IT contract, finalized functionality, security, and reliability certification criteria for ambulatory electronic health records in May 2006 and described interoperability criteria for

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<sup>19</sup> The Certification Committee for Health IT is a voluntary, private sector organization that is working to certify health IT products in three areas: ambulatory electronic health records for the office-based physician or provider, inpatient electronic health records for hospitals and health systems, and the network components through which the electronic health records operate and share information.

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future certification requirements. The committee subsequently certified 22 vendors' electronic health records products in July. Its next phase is to define and recommend certification criteria for inpatient electronic health records. The committee plans to publish these criteria for public comment during the last quarter of 2006, with certification beginning in the second quarter of 2007.

Additionally, the Nationwide Health Information Network contracts have thus far resulted in the identification of draft functional requirements for incorporating lab results and patient information, such as medical history and insurance information, into electronic health records. The requirements were presented to the Secretary of HHS in June 2006, and an initial set of requirements for the Nationwide Health Information Network are expected to be issued in September 2006.

In our March 2006 testimony, we described the Gulf Coast Electronic Digital Health Recovery contract, which was awarded by HHS to promote the use of electronic health records to rebuild medical records for patients in the Gulf Coast region affected by hurricanes last year. The outcomes of the contract are expected to coordinate planning for the recovery of digital health information in cases of emergencies or disasters and to develop a prototype of health information sharing and electronic health records support. The contract established a task force of local and national experts to help area providers turn to electronic medical records as they rebuild medical records for their patients.

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## HHS Has Initiated Steps to Establish Health IT Standards

HHS awarded its Standards Harmonization Process for Health IT contract to ANSI.<sup>20</sup> The contract is supported by ANSI's Health IT Standards Panel, a collaborative partnership between the public and private sector. This effort integrates standards previously identified

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<sup>20</sup> The American National Standards Institute is a private, nonprofit membership organization that coordinates the development and use of voluntary standards in the United States.

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by the Consolidated Health Informatics<sup>21</sup> and other federal initiatives. To date, the panel has selected 90 interoperability standards for areas such as electronic health records and public health detection and reporting. The selected standards specifically address components of the breakthrough areas defined by the American Health Information Community and were produced by accepted standards organizations. The Nationwide Health Information Network functional requirements also incorporate standards defined through the work of the Standards Harmonization Process for Health IT contract. The selected standards are currently being reviewed for acceptance by the Secretary.

HHS has also involved the Department of Commerce's National Institute for Standards and Technology (NIST) with HHS's work to implement health IT standards through its standards harmonization contract. HHS's standards harmonization contractor is required to maximize the use of existing processes and collaborate with NIST where appropriate, including consideration of outputs from the standards harmonization process as Federal Information Processing Standards<sup>22</sup> relevant to federal agencies. NIST's issuance of Federal Information Processing Standards for health IT is to be aligned with recommendations from public and private sector coordination efforts through the American Health Information Community, as accepted by the Secretary of HHS. The Federal Information Processing Standards are to be consistent with the standards adopted by the harmonization contract to enable the alignment of federal and private sector standards and widespread interoperability among health IT systems, particularly electronic health records systems.

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<sup>21</sup> Consolidated Health Informatics was initiated in December 2001 as an Office of Management and Budget e-government project to establish federal health information standards to enable federal agencies to build interoperable health data systems. The project was incorporated into the Federal Health Architecture in September 2004.

<sup>22</sup> Federal Information Processing Standards are developed by NIST in collaboration with national and international standards committees, users, industry groups, consortia, and research and trade organizations when there are no existing voluntary industry standards to address federal requirements for the interoperability of different systems, for the portability of data and software, and for computer security.

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## HHS Has Begun to Define Requirements for the Development of Prototypes for the Nationwide Health Information Network

HHS's Nationwide Health Information Network contracts are intended to provide architectures and prototypes of national networks based on the breakthrough areas defined by the American Health Information Community. HHS awarded contracts for developing these architectures and prototypes to four contractors. The contractors are to deliver final operating plans and prototypes of a national network that demonstrates health information exchange across multiple markets in November 2006.

In late June 2006, HHS held its first Nationwide Health Information Network forum. More than 1000 functional requirements for a Nationwide Health Information Network were presented for discussion and public input. The requirements addressed general Nationwide Health Information Network infrastructure needs and the breakthrough areas defined by the American Health Information Community. The requirements are being reviewed by the National Committee for Vital and Health Statistics,<sup>23</sup> which is expected to release its approved requirements by September 2006.

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## HHS Is Taking Steps to Incorporate Privacy and Security Policies, Practices, and Standards into Its National Strategy

HHS, through its contracts and recommendations from the American Health Information Community and the National Committee for Vital and Health Statistics, has initiated several actions to address privacy and security issues associated with the nationwide exchange of health information. In May 2006, 22 states subcontracted under HHS's privacy and security contract to perform assessments of the impact of organization-level business policies and state laws on security and privacy practices and the degree to which they pose challenges to interoperable health information exchange. In August 2006, 11 more states and Puerto Rico were

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<sup>23</sup> The National Committee on Vital and Health Statistics was established in 1949 as a public advisory committee that is statutorily authorized to advise the Secretary of HHS on health data, statistics, and national health information policy, including the implementation of health IT standards.

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added to the scope of the contract. The outcomes of the contract are to provide a nationwide synthesis of information to inform privacy and security policy making at federal, state, and local levels.

In addition, the standards selected through the standards harmonization contract include those that are applicable to the consumer empowerment breakthrough area, specifically privacy and confidentiality. Its initial standards are intended to allow consumers the ability to establish and manage permissions and access rights, along with informed consent for authorized and secure exchange, viewing, and querying of their medical information between designated caregivers and other health professionals. Additionally, the proposed functional requirements for the Nationwide Health Information Network include security requirements that are needed for ensuring the privacy and confidentiality of health information.

In May 2006, several of the American Health Information Community workgroups recommended the formation of an additional workgroup comprised of privacy, security, clinical, and technology experts from each of the other American Health Information Community workgroups. The Confidentiality, Privacy, and Security Workgroup was formed in July to frame the privacy and security policy issues relevant to all breakthrough areas and solicit broad public input to identify viable options or processes to address these issues. The recommendations developed by this workgroup are intended to establish an initial policy framework and address issues including methods of patient identification, methods of authentication, mechanisms to ensure data integrity, methods for controlling access to personal health information, policies for breaches of personal health information confidentiality, guidelines and processes to determine appropriate secondary uses of data, and a scope of work for a long-term independent advisory body on privacy and security policies. The workgroup convened last month.

In June 2006, the National Committee on Vital and Health Statistics presented to the Secretary of HHS a report recommending actions regarding privacy and confidentiality in the Nationwide Health Information Network. The recommendations cover topics that are, according to the committee, central to challenges for protecting

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health information privacy in a national health information exchange environment. Specifically, they address (1) the role of individuals in making decisions about the use of their personal health information, (2) policies for controlling disclosures across a national health information network, (3) regulatory issues such as jurisdiction and enforcement, (4) use of information by non-health care entities, and (5) establishing and maintaining the public trust that is needed to ensure the success of a national health information network. The recommendations are being evaluated by the American Health Information Community workgroups, the Certification Commission for Health IT, Health Information Technology Standards Panel, and other HHS partners. The committee intends to continue to update and refine its recommendations as the architecture and requirements of the network advance.

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## HHS Is Continuing to Address Public Health Integration

To help promote the integration of public health data into a nationwide health information exchange, the American Health Information Community's biosurveillance workgroup made recommendations in May 2006 intended to help the simultaneous flow of clinical care data to and among local, state, and federal biosurveillance programs. The community recommended that HHS develop sample data-use agreements and implementation guidance to facilitate the sharing of data from health care providers to public health agencies. The workgroup also recommended that HHS, in collaboration with privacy experts, state and local governmental public health agencies, and clinical care partners, develop materials to educate the public about the information that is used for biosurveillance including the benefits to the public's health, improved national security, and the protection of patient confidentiality by September 30, 2006.

Information exchange standards for sharing clinical health information (e.g., emergency department visit data and lab results) with public health are included in the 90 standards recently recommended as a result of HHS's standards harmonization contract. The standards are intended to enable the transmission of essential ambulatory care and emergency department visit,

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utilization, and lab result data from electronic health care delivery and public health systems in standardized and anonymized<sup>24</sup> format to authorized public health agencies within less than one day. In addition to advancing the use of electronic health records, the Gulf Coast contract is intended to help support public health emergency response by fostering the availability of field-level electronic health records to clinicians responding to disasters.

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## HHS Is Continuing Efforts to Complete and Implement a National Strategy for Health IT

As called for by the President's executive order in April 2004, the national coordinator's office is continuing its efforts to complete a national strategy for health IT. Since we testified in March 2006, the office has worked to evolve the initial framework and, with guidance from the American Health Information Community, has revised and refined the goals and strategies identified in the initial framework. The new draft framework—*The Office of the National Coordinator: Goals, Objectives, and Strategies*—provides high-level strategies for meeting the President's goal for the adoption of interoperable health IT and is to be used to develop internal performance measures for the office's activities.

The framework identifies objectives for accomplishing each of four goals, along with 32 high-level strategies for meeting the objectives. The Office of the National Coordinator has identified and prioritized the 32 strategies for accomplishing the framework's goals and has initiated 10 of them, which are supported by the contracts that HHS awarded in fall 2005. Table 3 illustrates the framework's goals, objectives, and strategies and identifies the 10 strategies that have been initiated.

The Office of the National Coordinator has prioritized the remaining 22 strategies defined in its framework. Six strategies are under active consideration, and the remaining 16 require future discussion. According to officials with the office, the strategies were prioritized based on guidance and direction from the American Health Information Community. The Office of the National Coordinator

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<sup>24</sup> Anonymized data are data that have had personally identifying information removed.

expects the framework to continue to evolve through collaboration among the Office of the National Coordinator and its partners, such as other federal agencies and the American Health Information Community, and as additional activities are completed through the contracts.

**Table 3: Office of the National Coordinator’s Goals and Initial Objectives and Strategies**

Goals	Objectives	High-level strategies
Goal 1: Inform health care professionals	High-value electronic health records	Simplify health information access and communication among clinicians <sup>a</sup> Increase incentives for clinicians to use electronic health records <sup>c</sup>
	Low-cost and low-risk electronic health records	Foster economic collaboration for electronic health records adoption <sup>b</sup> Lower total cost of electronic health records purchase and implementation <sup>b</sup> Lower risk of electronic health records adoption <sup>a</sup>
	Current clinical knowledge	Increase investment in sources of evidence-based knowledge <sup>c</sup> Increase investment in tools that can access and integrate evidence based knowledge in the clinical setting <sup>c</sup> Establish mechanisms which will allow clinicians to empirically access information and other patient characteristics that can better inform their clinical decisions <sup>c</sup>
	Equitable adoption of electronic health records	Ensure low-cost electronic health records for clinicians in underserved areas <sup>c</sup> Support adoption and implementation by disadvantaged providers <sup>c</sup>
	Goal 2: Interconnect health care	Widespread adoption of standards
Goal 2: Interconnect health care	Sustainable electronic health information exchange	Stimulate private investment to develop the capability for efficient sharing of health information <sup>b</sup> Use government payers and purchasers to foster interoperable electronic health information exchange <sup>c</sup> Adapt federal agency health data collection and delivery to NHIN solutions <sup>c</sup> Support state and local governments and organizations to foster electronic health information exchange <sup>b</sup>
	Consumer privacy and risk protections	Support the development and implementation of appropriate privacy and security policies, practices, and standards for electronic health information exchange <sup>a</sup> Develop and support policies to protect against discrimination from health information <sup>c</sup>
	Goal 3: Personalize health management	Consumer use of personal health information
Remote monitoring and communications		Promote adoption of remote monitoring technology for communication between providers and patients <sup>a</sup>
Care based on culture and traits		Promote consumer understanding and provider use of personal genomics for prevention and treatment of hereditary conditions <sup>c</sup>

Goals	Objectives	High-level strategies
Goal 4: Improve population health	Automated public health and safety monitoring and management	Promote multi-cultural information support <sup>c</sup>
		Enable simultaneous flow of clinical care data to and among local, state, and federal biosurveillance programs <sup>a</sup>
	Efficient collection of quality information	Ensure that the nationwide health information network supports population health reporting and management <sup>c</sup>
		Develop patient-centric quality measures based on clinically relevant information available from interoperable longitudinal electronic health records <sup>b</sup>
		Ensure adoption of uniform performance measures by health care stakeholders <sup>c</sup>
	Transformation of clinical research	Establish standardized approach to centralized electronic data capture and reporting of performance information <sup>c</sup>
Health information support in disasters and crises		Foster the availability of field electronic health records to clinicians responding to disasters <sup>a</sup>
		Improve coordination of health information flow during disasters and crises <sup>c</sup>
		Support management of health emergencies <sup>c</sup>

Source: HHS Office of the National Coordinator for Health IT

<sup>a</sup> Strategy has been initiated

<sup>b</sup> Strategy is under active consideration

<sup>c</sup> Strategy requires future discussion

While HHS has taken additional steps toward completing a national strategy and has initiated specific activities defined by its strategic framework, it still lacks the detailed plans, milestones, and performance measures needed to ensure that its goals are met. While the National Coordinator acknowledged the need for more detailed plans for its various initiatives and told us in March that HHS intended to release a strategic plan with detailed plans and milestones later this year, current officials with the office could not tell us when detailed plans and milestones would be defined. Given the complexity of the tasks at hand and the many activities to be completed, a national strategy that defines detailed plans, milestones, and performance measures is essential. Without it, HHS risks not meeting the President's goal for health IT.

In summary, Mr. Chairman, our work shows that HHS is continuing its efforts to help transform the use of IT in the health care industry. However, much work remains. While HHS, through the Office of the National Coordinator for Health IT and the American Health Information Community, has initiated specific actions for

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supporting the goals of a national strategy, detailed plans and milestones for completing the various initiatives and performance measures for tracking progress have not been developed. Until these plans, milestones, and performance measures are completed, it remains unclear specifically how the President's goal will be met and what the interim expectations are for achieving widespread adoption of interoperable electronic health records by 2014.

Mr. Chairman, this concludes my statement. I would be pleased to answer any questions that you or other Members of the Subcommittee may have at this time.

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## Contacts and Acknowledgments

If you should have any questions about this statement, please contact me at (202) 512-9286 or by e-mail at [pownerd@gao.gov](mailto:pownerd@gao.gov). Other individuals who made key contributions to this statement are Amanda C. Gill, Nancy E. Glover, M. Saad Khan, and Teresa F. Tucker.

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### Abbreviations

HHS	Department of Health and Human Services
IT	information technology
NIST	National Institute for Standards and Technology

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