Online Performance Appendix
Office of the National Coordinator for Health Information Technology
FY 2009

Introduction

The Online Performance Appendix is one of several documents that fulfill the Department of Health and Human Services' (HHS') performance planning and reporting requirements. HHS achieves full compliance with the Government Performance and Results Act of 1993 and Office of Management and Budget Circulars A-11 and A-136 through HHS agencies' FY 2009 Congressional Justifications and Online Performance Appendices, the Agency Financial Report and the HHS Performance Highlights. These documents can be found at: http://www.hhs.gov/budget/docbudget.htm and http://www.hhs.gov/afr/.

The Performance Highlights briefly summarizes key past and planned performance and financial information. The Agency Financial Report provides fiscal and high-level performance results. The FY 2009 Department's Congressional Justifications fully integrate HHS' FY 2007 Annual Performance Report and FY 2009 Annual Performance Plan into its various volumes. The Congressional Justifications are supplemented by the Online Performance Appendices. Where the Justifications focus on key performance measures and summarize program results, the Appendices provide performance information that is more detailed for all HHS measures.

The ***Office of the National Coordinator for Health Information Technology's*** Congressional Justification and Online Performance Appendix can be found at http://www.hhs.gov/healthit/

Summary of Performance Targets and Results Table
Office of the National Coordinator for Health Information Technology

FY	Total Targets	Results Reported		Targets			
		Number	%	Met	Not Met		% Met
					Total	Improved	
2004	N/A						
2005	1	1	100	1			100
2006	1*	1	100	1			100
2007	3	1**	33	0	1	0	0
2008	6						
2009	6						

* FY 2005 was the baseline year. No survey was conducted during 2006 so no data are available.

** A survey was released in August 2007; the final results from the survey for measure 1.3.3 will be available in February 2008. This information will also establish the baseline for 1.3.4. A new efficiency measure, 1.3.7, was added in 2007; baseline information will be available in February 2008 based on the final adoption survey results. Targets for measures 1.3.5 and 1.3.6 are under development.

PERFORMANCE DETAIL

The President called for most Americans to have access to electronic health records (EHRs) by the year 2014. ONC measures progress toward this goal by setting ambitious goals for six performance measures. These measures focus on standards (for health care data to promote interoperability), progress toward interoperable heath information exchange, and the rate of adoption of electronic health records by physicians across the United States. Health information technology is a critical component in improving the quality, safety, cost and value of health care offered to our Nation's 300 million Americans.

STANDARDS

#	Key Outcomes	FY 2004 Actual	FY 2005 Actual	FY 2006		FY 2007		FY 2008 Target	FY 2009 Target	Out-Year Target
				Target	Actual	Target	Actual			
Long-Term Objective 1: Increase adoption of Electronic Health Records (EHRs)										
1.3.5	Develop a unified set of standards to support requirements for broad health information exchange	N/A	N/A	Under Development						

Assuring that systems are interoperable -- can share data reliably, securely, and efficiently among themselves -- is one of the key components to encourage the adoption of electronic health records. Interoperabilty is dependent on the data standards developed through the standards harmonization process. This measure reflects the continued advancement of a process for standards-based interoperabilty over time. The performance measure will guide ONC progress toward developing a unified set of standards through an established process that engages both the public and private sectors. The targets are currently under development.

ONC has made much progress in the area of standards harmonization through the efforts of the Healthcare Information Technology Standards panel (HITSP) that addresses the priorities set by the American Health Information Community (AHIC). At the close of 2007, the HITSP process successfully reviewed over 950 possible standards, harmonized them into 42 interoperability standards and produced over 1,100 pages of specifications on exactly how those standards need to be used. These standards were based on use cases developed from priority areas identified by AHIC: Biosurveillance, Consumer Empowerment: Registration and Medication History, and Electronic Health Records: Laboratory Results. By March 2008, HITSP will present harmonized standards for approval by the AHIC and acceptance by the HHS Secretary for the second round of AHIC priorities: Emergency Responder Electronic Health Records, Consumer Access to Clinical Information, Medication Management; and Quality Reporting. Once these harmonized standards are accepted by the Secretary of HHS, they can be incorporated into health IT products and services.

ARCHITECTURE AND ADOPTION

#	Key Outcomes	FY 2004 Actual	FY 2005 Actual	FY 2006		FY 2007		FY 2008	FY 2009	Out-Year Target
				Target	Actual	Target	Actual	Target	Target	
Long-Term Objective 1: Increase adoption of Electronic Health Records (EHRs)										
1.3.2	Increase physician adoption of EHRs	N/A	10%	14%	N/A*	18%	14%	24%	30%	51% (2014)
1.3.3	Increase the percentage of small practices with EHRs	N/A	N/A	Baseline	4%	5%	Feb 08	8%	11%	16% (2014)
1.3.4	Percent of physician offices adopting ambulatory EHRs in the past 12 months that meet certification criteria	N/A	N/A	N/A	N/A	10%	Feb 08	25%	50%	55% (2010)
1.3.5	Develop a unified set of standards to support requirements for broad health information exchange	N/A	N/A	Under Development						
1.3.6	Develop a mature Nationwide Health Information Network (NHIN) architecture that will support broad health information exchange	N/A	N/A	Under Development						
1.3.7	Cost per physician for adopting certified EHRs	N/A	N/A	Under Development						

* FY 2005 was the baseline year and no survey was conducted in FY 2006 so do data is available.

Through three performance measures (1.3.2, 1.3.3 and 1.3.4 in the Outcomes Table), ONC monitors its progress toward the ultimate goal of most American having access to interoperable electronic health records by 2014. These measures were established through the FY 2006 Program Assessment Rating Tool (PART) process with goals set in 2007. Additionally,1.3.7, a new efficiency measure was established during 2007 and will measure the cost per physician for adopting certified electronic health records. And, finally, ONC monitors the progress being made toward developing broad health information exchange through measure 1.3.6.

Architecture Measure

1.3.6 *Develop a mature Nationwide Health Information Network architecture that will support broad health information exchange.*

System interoperability is dependent upon the development of a set of standards and specifications that can allow secure and reliable exchange of information among many entities over the Internet. Presently, the capacity for such health information exchange through a Nationwide Health Information Network does not exist; but up to 10 sites across the country will

be imiplementing this architecture in 2008. This will, in-turn, help to stimulate the rates at which electronic health records are adopted by assuring that systems can share data reliably, securely, and efficiently among each other. Development of baseline and target data is underway for measure 1.3.6, which will provide clear linkages to the NHIN outcomes, as well as ONC's longer-term outcomes and goals.

ONC has made progress in advancing the prototype architectures work. In FY 2007, nine contracts were awarded to form the NHIN Cooperative for NHIN Trial Implementations. These trial implementations are building on the previous work that resulted in four prototype architectures. Subsequently, a tenth health information exchange participant group – made up of the Indian Health Service, Department of Defense and Department of Veterans Affairs – was formed to bring a Federal presence to the Cooperative. The Cooperative involves public and private health information exchange organizations across the country that can move health-related data among entities within a state, a region or a non-geographic participant group. The goal of the Cooperative is to demonstrate on-site, interoperable and secure health information exchange based on common specifications.

Adoption Measures

The 2005 baseline 10 percent adoption rate for ambulatory EHR physician adoption was drawn from a comprehensive review of the literature summarizing existing survey results of health IT adoption using a standardized methodology. A standardized survey tool was subsequently developed to measure adoption more directly. The most recent results will be based on a survey that was distributed by ONC in July 2007 to approximately 5,000 physicians. In addition to reporting on the adoption rate, the survey also assesses barriers to adoption and other variables that can help inform future policy. Results will be available in February 2008 and the final report on the findings of this study is expected to be published in March 2008.

Beginning in 2008, the annual rate of adoption will be established through the National Ambulatory Medical Care (NAMC) Survey, which is administered by the Centers for Disease Control and Protection (CDC) annually. The NAMCS survey will incorporate the standardized questions that were developed by national experts and NAMCS and will be included in both the current survey and future NAMCS surveys. NAMC surveys are typically face-to-face interviews with a random sample of about 6,000 physicians. However, ONC will also fund the mailing of the NAMC survey to an additional 10,000 physicians across America in order to increase the sample size. The sample populations will be cross-checked to ensure there are no duplications between the two samples. The mailed survey responses will be returned to CDC for incorporation with the face-to-face survey results. These survey results will inform the adoption measures 1.3.2, 1.3.3, 1.3.4, and 1.3.7.

Measure 1.3.2: *Increase Physician Adoption of Electronic Health Records (EHRs)*

Reasons for Performance Result

Targets for measure 1.3.1 were established with the report that was published in 2006. Because the report was based on surveys conducted in 2005, the baseline was set for 2005. There was no

survey conducted in 2006, which is why no results were reported for that year. ONC's overarching goal, as stated by the President, is that by 2014, most Americans will have access to EHRs. At least 50 percent of physicians will have EHRs for their patients and consumers as measured by standardized, industry-accepted methodology. The targets listed for this measure refer to adoption within physician offices only. Because ONC's current estimated baseline and subsequent target and performance data are based on two different survey sources they will be revised so that subsequent target data can be derived from the same source. The most recent survey results are reporting lower adoption rates than anticipated and analyses of possible adoption barriers are currently underway.

The preliminary results of the 2007 outpatient adoption survey indicate that 14 percent of physicians have adopted minimally functional EHRs – those systems that can record and manage progress notes, order tests, record test results and electronically prescribe medications. While this is lower than the anticipated rate of 18 percent in 2007, it does represent a significant increase. The new availability of EHRs that are certified for specific functionalities and security addresses one of the key concerns that physicians have had when making their investments. While these programs have likely contributed to the increase in the adoption rate, continuing concerns about the business case for adoption, privacy and security issues, how to get through the adoption process, and office workflow continue to inhibit more widespread activity toward the 2014 goal. The Centers for Disease Control and Prevention (CDC), is measuring the adoption rate of EHRs in physician offices and inpatient hospitals through established surveys. CDC has expanded the sample size of its National Ambulatory Medical Care Survey (NAMC) to measure the adoption rate of EHRs by physicians. CDC will increase the sampling framework to measure the adoption rate among small and rural physician practices by adding mailed survey questionnaires to an additional 10,000 physicians.

Steps Being Taken to Improve Program Performance

HHS has undertaken a number of initiatives to address the barriers to EHR adoption including:

- The certification process - through the Certification Commission for Healthcare Information Technology (CCHIT) - guarantees systems functionality, security, and interoperability status but is just now evolving to address the financial risk of the various EHR vendors.
- ONC is working with the malpractice insurers to establish credits for physicians who have adopted certified EHRs, but the effect, again, will not be seen this year.
- To further adoption of health information technology, the CMS budget includes funding for a demonstration project providing financial incentives for physician practices to adopt certified EHR systems to improve the quality and efficiency of services.

Measure 1.3.3 *Increase the percentage of small practices with EHRs*

This measure strives to address the gap in adoption between large physician practices (defined as employing 20 or more physicians) and small physician practices (defined as those practices employing 5 or less physicians) through strategies that help small physician offices have access to and adopt health IT at an appropriately proportional rate. Currently, the adoption rate for

small physician practices is significantly lower than the national average. The targets for adoption among small practices reflect a lower starting point and the expected adoption rates associated with that baseline. Note that small physician practices will also be more likely to have practices in underserved settings.

In 2006, a baseline of 4 percent was established for this measure based on ONC's review of surveys and studies conducted by various sources, using a standardized methodology. This resulted in the establishment of targets for this measure in future years, including a target of 5 percent in 2007. Moving forward from 2007 and thereafter, ONC will leverage a survey already conducted by the Centers for Disease Control and Prevention (CDC) to obtain data for this measure. ONC will also provide additional funding to CDC to increase their sample size to ensure an adequate representation of small physician practices for this annual survey.

The 2007 survey results for this measure will not be available until February 2008.

Measure 1.3.4 *Increase the percentage of physician offices adopting ambulatory electronic health records in the past 12 months that meet certification criteria*

Increased electronic health record (EHR) adoption is also dependent on a process that guarantees that the purchasers of EHRs are implementing systems and products that meet their needs for functionality, security, and interoperability. The certification process guarantees that the EHRs being purchased incorporate the appropriate standards for these three areas. The percent of adoption of certified health IT will be measured as the percentage of EHRs adopted in a given year that are certified.

This measure calculates the percent of physician offices that have adopted an electronic health record over the past 12 months that meet criteria for certification established by the Certification Commission for Healthcare Information Technology (CCHIT), a non-partisan certification body. Fiscal year 2007 was the first year that this question was included in any survey of physician adoption of electronic health records. Survey results, which are anticipated in February 2008, will result in the establishment of a baseline. Since this year will be the first year that this question is asked in a national survey, there is uncertainly as to whether actual results will meet our target expectation of 25 percent in fiscal year 2008.

1.3.7 Cost per physician for adopting certified electronic health records.

This measure will monitor the cost of certification as more physicians adopt electronic health records. The calculation will take into account the total of ONC funding for Standards, Privacy and Security, Architecture and Adoption plus the charge to vendors for product certification, as reported by the Certification Commission for Healthcare Information Technology. This sum will be divided by the number of physicians in the US, as reported by the American Medical Association, multipled by the results of the annual adoption survey that reports the percent of physicians adopting general ambulatory certified electronic health records.

This measure was established in FY 2007. Baseline and targets will be set in spring 2008 with the final results of the 2007 adoption survey.

DISCUSSION OF ONC'S STRATEGIC PLAN

The Office of the National Coordinator for Health Information Technology (ONC), in the Office of the Secretary for the U.S. Department of Health and Human Services (HHS), is the principal Federal organization charged with coordination of national efforts related to the implementation and use of electronic health information exchange. Although computer technology has changed the way that Americans communicate and share information, for the most part medical data are still available to health care providers and patients only through paper and film records. Coordinating the public and private-sector efforts to improve the quality of health and care through information technology is a key ONC role.

ONC has prepared a draft Health IT Strategic Plan and plans to release it in the second quarter of 2008. This plan supports the President's goal of most Americans having access to electronic health records by 2014, as well as the Secretary's Priorities to provide value-driven health care, information technology, and national preparedness in emergencies and disasters.

Statement of ONC Vision and Progress

In accordance with Executive Order 13335, the Office of the National Coordinator for Health Information Technology (ONC) was created to fulfill the President's vision of the widespread adoption of interoperable electronic health records for the majority of American citizens by the year 2014. At a time when information technology provides the ability to access and share information at the click of a button, millions of care providers and patients still face barriers to quality health care because of the lack of readily available health information.

Vision

A Nation in which the health and well-being of individuals and communities are enabled by health information technology.

As the public and private sectors work together under ONC leadership toward a future of connected care, the vision of a health care system that puts patients first, enables better management and coordination of care, reduces errors and increases convenience gives focus to ONC's path forward. It is a system that must inherently provide incentives to encourage patients and providers to select health care services that combine high quality with cost effectiveness. This connected system should be one that encourages competition based on value. A prerequisite for such a system is the widespread adoption and use of interoperable health information technology (health IT). The ability for patients and providers to electronically access and share accurate, private and secure health care data is a critical requirement to enable a range of transforming practices and activities that will improve health and care for the individual, the community, and the Nation.

Mission

ONC leads, coordinates, and stimulates public and private sector activities that promote the development, adoption, and use of health information technologies to achieve a healthier nation.

As the coordinating office for national health information technology (health IT) activities, ONC provides leadership, program resources and services needed to guide nationwide implementation of interoperable health IT. ONC organizes its activities in five program areas:

- **Standards** – Software applications must 'speak the same language' to be able to work together. This involves creating, testing, and adopting interoperability standards that will allow systems across the health care market to move health information seamlessly. A technology certification process gives assurance that these accepted standards are appropriately incorporated in health IT products and systems. Multi-stakeholder collaboration that prioritizes standards development and advises the HHS Secretary on how to accelerate the development and adoption of health IT is currently accomplished through the American Health Information Community (AHIC). HHS is in the process of establishing a successor to AHIC as an independent public-private partnership organization by 2009 that will enable continuation of this highly collaborative process.
- **Privacy and Security** –Careful attention to privacy and security policies to guide evolving technology will help to build the high degree of public confidence and trust needed to achieve nationwide interoperable health IT. Ongoing work identifies disparate state policies and business practices to resolve variations that are barriers to health information exchange.
- **Architecture and Adoption** – The implementation of a Nationwide Health Information Network will provide the foundation for interoperable, secure and standards-based health information exchange. Demonstrating the value of electronic and personal health record systems and identifying enablers and barriers to their use and implementation will also advance adoption of health IT. Regularly assessing the adoption rate through surveys and studies will monitor progress toward the President's goal that most Americans will have electronic health records by 2014.
- **Operations** – Required support for all activities and infrastructure necessary to sustain ONC including workforce, finance, administration, performance measurement, and strategic planning activities.

To ensure achievement of the cornerstones expressed in Executive Order 13410, ONC, in collaboration with the Office of Management and Budget (OMB), developed a Health Information and Price and Quality Transparency scorecard. Under this framework, ONC provides both government-wide leadership and HHS-wide leadership in an effort to implement accepted interoperability standards within their health information systems and, beginning in 2008, on the actual inclusion of the standards within applicable systems and on evidence that demonstrates their progress in making price and quality measures available to their beneficiaries.

Under the auspices of the scorecard and under ONC's leadership, the participating federal agencies and HHS components are assisting in the creation of national inventories of federal health systems that must adopt the interoperability standards accepted by the Secretary of HHS. Similarly, a contract inventory is being developed to ensure that, as a condition of award for health information technology system acquisitions or upgrades, federal contracts require the utilization of health information technology systems and products that meet recognized interoperability standards. ONC is leading the effort to draft consistent language for these federal contracts.

To ensure that progress is sustainable, ONC has completed, and OMB has accepted, a Green Plan that depicts HHS' Government-wide and Department-wide activities for success in FY 2008. The HHS plan will serve as the foundation from which other federal agencies participating in this initiative will create their own plans. The plan requires measurable progress on activities such as: meeting ambulatory care certification criteria, including independent validation of ambulatory care software; demonstrating collaborations and progress toward making additional price and quality measurements available to consumers on a continuous timeline; and requiring the development of transition plans, including timelines, resource identification and identification of planned health information exchanges that will adopt the interoperability standards.

Discussion of ONC's Strategic Goals

ONC activities support the HHS Strategic Plan in a number of areas and the Secretary's Priorities to provide value-driven health care, information technology, and national preparedness in emergencies and disasters. Interoperable health IT is a fundamental requirement to transform the Nation's health care system. Health IT is a critical tool that can be used to significantly reduce medical errors, engage consumers and patients in their own health and care, and provide information in a coordinated fashion. ONC provides the coordinating leadership to achieve these outcomes.

ONC is working within HHS – with multiple operating and staff divisions – as well as across the government, to develop and implement a Strategic Plan to achieve the Secretary's priority of making available to patients and their doctors secure interoperable electronic health records. Investments in privacy and security, a nationwide health information technology architecture, pilots to demonstrate the value of health IT use, and surveys to measure electronic health record adoption support the strategic goals of improving the safety, quality, affordability and accessibility of health care; preventing and controlling disease, injury, illness, and disability across the lifespan; protecting the public from infectious, occupational, environmental, and terrorist threats; and advancing scientific research and development through the transfer and communication of research into clinical practice.

Links to HHS Strategic Plan

HHS Strategic Goals	ONC Activities Support HHS Strategic Goals
1: Health Care Improve the safety, quality, affordability and accessibility of health care, including behavioral health care and long-term care.	
1.1 Broaden health insurance and long-term care coverage.	
1.2 Increase health care service availability and accessibility.	**X**
1.3 Improve health care quality, safety and cost/value.	**X**
1.4 Recruit, develop, and retain a competent health care workforce.	
2: Public Health Promotion and Protection, Disease Prevention, and Emergency Preparedness Prevent and control disease, injury, illness and disability across the lifespan, and protect the public from infectious, occupational, environmental and terrorist th	
2.1 Prevent the spread of infectious diseases.	**X**
2.2 Protect the public against injuries and environmental threats.	
2.3 Promote and encourage preventive health care, including mental health, lifelong healthy behaviors and recovery.	
2.4 Prepare for and respond to natural and man-made disasters.	**X**
3: Human Services Promote the economic and social well-being of individuals, families and communities	
3.1 Promote the economic independence and social well-being of individuals and families across the lifespan.	
3.2 Protect the safety and foster the well being of children and youth.	
3.3 Encourage the development of strong, healthy and supportive communities.	
3.4 Address the needs, strengths and abilities of vulnerable populations.	
Strategic Goal 4: Scientific Research and Development Advance scientific and biomedical research and development related to health and human services	
4.1 Strengthen the pool of qualified health and behavioral science researchers.	
4.2 Increase basic scientific knowledge to improve human health and human development.	
4.3 Conduct and oversee applied research to improve health and well-being.	
4.4 Communicate and transfer research results into clinical, public health and human service practice.	**X**

Summary of Full Cost (Dollars in Millions)			
Performance Program Area	FY 2007	FY 2008	FY 2009
1. Health Care			
1.3 Improve health care quality, safety and cost/value	61.3	60.6	66.2
Increase physician adoption of Electronic Health Records (EHRs).	*61.3*	*60.6*	*66.2*
Full Cost Total	61.3	60.6	66.2

ONC's performance goal of increasing physician adoption of Electronic Health Records supports the HHS Health Care strategic goal and the strategic objective of improving health care quality, safety and cost/value. All cost data can be included under this long term goal.

List of Program Evaluations

No program evaluations were conducted.

Data Source and Validation Table

Program: Health Information Technology		
Measure Unique Identifier	**Data Source**	**Data Validation**
1.3.2	National Ambulatory Medical Care (NAMC) Survey	Survey publication utilizes standardized methodology for defining and measuring health IT adoption.
1.3.3	National Ambulatory Medical Care (NAMC) Survey	Survey publication utilizes standardized methodology for defining and measuring health IT adoption.
1.3.4	National Ambulatory Medical Care (NAMC) Survey	Survey publication utilizes standardized methodology for defining and measuring health IT adoption.
1.3.5	Targets to be established in spring 2008	
1.3.6	Targets to be established in spring 2008	
1.3.7	Targets to be established in spring 2008	