The Community

American Health Information Community Meeting

January 17, 2006
8:30 a.m. – 4 p.m.

Department of Health and Human Services
Hubert H. Humphrey Building
Room 800
200 Independence Avenue, SW
Washington, DC 20201

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Meeting Report

American Health Information Community
November 29, 2005

The American Health Information Community (AHIC), a federally-chartered commission formed to help advance President Bush's call for most Americans to have electronic health records within 10 years, held its second meeting on November 29, 2005, at the Department of Health and Human Services (DHHS), 200 Independence Avenue, SW, Washington, DC, 20201.

The purpose of the meeting was to bring together the Community's 17 members to continue discussion of steps toward ways to achieve its mission of providing input and recommendations to Health and Human Services on how to make health records digital and interoperable, and assure that the privacy and security of those records are protected in a smooth, market-led way. The meeting focused on a detailed discussion of the focus areas identified during the October 7 meeting.

DHHS Secretary Michael O. Leavitt chairs the Community. The remaining 16 members, selected by Secretary Leavitt, are key leaders in the public and private sectors who represent stakeholder interests in advancing the mission of the Community and who have strong peer support. Members will serve 2-year terms.

The meeting was chaired by Secretary Leavitt and David Brailer, MD, PhD, National Coordinator for Health Information Technology.

A summary of the discussion and events of that meeting follow.

Call to Order

Secretary Leavitt opened the meeting, welcoming Community members and noting that the purpose of this meeting was to take steps forward in realizing the "pure vision" discussed at the October 7 meeting. He thanked members for the remarkable amount of progress made since the last meeting. Secretary Leavitt noted that "There is a huge wave of consumer potential in my assessment that is building behind the health information technologies. Markets can move mountains, and this group collectively can move markets." He added that more than 40 percent of the health care market is represented in the Community.

Joining Secretary Leavitt counterclockwise around the table were:

David Brailer, MD, PhD, National Coordinator for Health Information Technology

William Winkenwerder, Jr., MD, Assistant Secretary of Defense for Health Affairs (Dr. Winkenwerder was represented by Carl Hendricks, CIO of the Military Health System, for part of the meeting)

E. Mitchell (Mitch) Roob, Secretary of the Indiana Family and Social Services Administration

Julie Gerberding, MD, Director of the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services

David Ayre, Senior Vice President of Compensation and Benefits, PepsiCo (representing Steve Reinemund, CEO and Chairman of Pepsico, who was unable to attend)

Craig Barrett, PhD, Chairman of the Board, Intel

Mark Warshawsky, PhD, Assistant Secretary for Economic Policy, U.S. Department of the Treasury (Dr. Warshawsky was represented by Adele Morris, Senior Economist, U.S. Department of the Treasury, for part of the meeting)

Mary Nell Lehnhard, Senior Vice President of Blue Cross Blue Shield Association (representing Scott Serota, President and CEO of the Blue Cross Blue Shield Association, who was unable to attend)

Nancy Davenport-Ennis, founder of both the National Patient Advocate Foundation and the Patient Advocate Foundation

Mark McClellan, MD, PhD, Administrator of the Centers for Medicare and Medicaid Services (Dr. McClellan was able to attend the afternoon portion of the meeting and was represented by Kelly Cronin, his Senior Advisor when not present)

David Kibbe, MD, MBA, Director of the American Academy of Family Physicians Center for Health Information Technology (representing Doug Henley, MD, Executive Vice President, American Academy of Family Physicians)

Lillee Gelinas, RN, MSN, Vice President of VHA, Inc.

Jonathan Perlin, MD, Under Secretary for Health, Department of Veterans Affairs and Veterans Health Administration (Dr. Perlin was represented by Dr. Robert Kolodner, Chief Health Informatics Officer, Veterans Health Administration, for part of the meeting)

Kevin Hutchinson, CEO of SureScripts

Dan Green, Deputy Associate Director, Center for Employee and Family Support Policy, Office of Personnel Management (representing Linda Springer, Director of the Office of Personnel Management, who was unable to attend)

Charles N. (Chip) Kahn III, President of the Federation of American Hospitals (Mr. Kahn was represented by Howard Eisenstein for part of the meeting)

Michelle O'Neill, Acting Under Secretary for Technology, U.S Department of Commerce

Approval of October 7 Meeting Minutes

Minutes from the October 7, 2005, AHIC meeting were distributed, reviewed by Community members, and approved unanimously with no changes.

Review of Office of the National Coordinator for Health Information Technology Contracts Recently Awarded

Dr. Brailer provided a brief review of Office of the National Coordinator for Health Information Technology contracts that have recently been awarded and relate to a series of major initiatives.

- **American Health Information Community.** AHIC is a priority because of the critical nature of bringing together both the federal enterprise and private-sector activities.

The next set of activities are core contracts for support infrastructure and are viewed as developing long-term capacity in the market and being able to drive the types of standardized information solutions that the Community envisions:

- **Standards Harmonization Process.** DHHS awarded a $3.3 million contract to the American National Standards Institute for convening a new group, the Health Information Technology Standards Panel. This Panel will review standards under development by U.S. standards development organizations and create a roadmap to consolidate these into a single set of standards. The goal is to achieve a significant degree of specificity and urgency around the development of standards.

- **Compliance Certification Process.** This $2.7 million contract was awarded to the Certification Commission for Health Information Technology to develop a process and criteria for inspecting electronic health records and other forms of health information technology. This group developed the draft criteria for ambulatory health electronic records. They will be working with DHHS to finalize those criteria and then develop criteria for inpatient electronic health records and for the components of the nationwide health information network.

- **Privacy and Security Solutions.** An $11.5 million contract was awarded to the Health Information Security and Privacy Collaboration, which is overseen by RTI International, a private, nonprofit organization. The Collaboration will be working with state and territorial governments 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 interoperable health information exchange. The Agency for Healthcare Research and Quality (AHRQ) is participating in this initiative as well.

- **Nationwide Health Information Network.** Four contracts totaling $18.6 million have been awarded to four consortia of health care and health information technology organizations led by Accenture, CSC, IBM, and Northrop Grumman to develop a blueprint for how a generalized network would share information across the United States.

- **Health Information Technology and Health Care Anti-Fraud.** Through a contract with the Foundation of Research and Education of the American Health Information Management Association, the Office of the National Coordinator for Health Information Technology and the Office of the Inspector General recently completed a project on the development of a cyber fraud capability. This initiative will focus on how fraud and abuse will work in an age of electronic health records with the goal of preventing fraud and prosecuting it in the future.

- **Health Information Technology Adoption Initiative.** A contract of more than $1 million was awarded to the George Washington University Health Policy Institute and Massachusetts General Hospital's Institute for Health Policy to convene an expert panel to review, on an annual basis, the surveys and evidence about health information technology adoption and will report to the public on how the United States is faring in its efforts to meet the President's goal of widespread adoption of electronic health records. The first report from this group is expected in the summer of 2006.

- **Proposed Changes to Self-Referral and Anti-Kickback Rules.** DHHS has announced proposed rules that would ease self-referral and anti-kickback restrictions that many providers believe impede the adoption of health information technology. The two proposals would change how the Centers for Medicare and Medicaid Services (CMS) and the Office of the Inspector General enforce the Stark Amendment, which prohibits hospitals from giving physicians access to hardware, software, or related training.

- **Digital Health Recovery for the Gulf Coast.** DHHS has entered into agreements with the Southern Governor's Association and the State of Louisiana Department of Health and Hospitals under which local leaders and national experts will plan for and coordinate the adoption of electronic health records and the development of regional health information sharing in the Gulf States.

Dr. Brailer explained that these activities and contracts lay out the infrastructure that will support the work of AHIC. More detailed information on these initiatives and contracts is available at www.hhs.gov/healthit.

Discussion:

AHLTA

Dr. Winkenwerder informed the community that Secretary Leavitt and others attended a recent meeting in Bethesda, MD, to unveil the military's new electronic health system, known as AHLTA. The system will serve the entire U.S. military health system, potentially up to 9.2 million people. About 80 of 140 eligible hospitals have implemented the system, and worldwide, more than 30,000 providers are using the system on a daily basis. Dr. Winkenwerder commented that "One of the exciting things for us is the ability to collect information using handhelds, and move that back to the United States. We are moving information globally—we have to do that because our population moves around the globe and their records need to follow them." Implementation is expected to be complete by December 2006, and at present, about 60,000 patient visits per day utilize the system, which was developed in collaboration with a number of private-sector entities. Dr. Leavitt added that in a battlefield setting, a provider can attend to a wounded soldier, record their observations, and have that information follow the soldier back to the United States.

Introduction of Community Member Representatives

Secretary Leavitt then asked individuals representing Community members who were not present to briefly introduce themselves. These individuals included:

Dan Green, Deputy Associate Director, Center for Employee and Family Support Policy, Office of Personnel Management, representing Linda Springer, Director of the Office of Personnel Management, who was unable to attend. Representing the Federal Employee Health Benefits Program, the largest employer-sponsored health insurance program in the United States, Mr.

Green has been charged with pushing this program along towards an interoperable system in the private sector, because they contract with private-sector health plans involving about 8 million lives.

David Kibbe, MD, MBA, a family physician and Director of the American Academy of Family Physicians Center for Health Information Technology (representing Doug Henley, MD, Executive Vice President, American Academy of Family Physicians). The Center's role is to help Academy members acquire and use portable and standards of excellence health records. Dr. Kibbe also represented 65,000 active family physicians, many of whom are actively engaged in using electronic health records. Although this group accounts for only about 7 percent of the medical workforce in this country, family physicians see 25 percent of all outpatient ambulatory care visits.

Mary Nell Lehnhard, Senior Vice President of Blue Cross Blue Shield Association (representing Scott Serota, President and CEO of the Blue Cross Blue Shield Association, who was unable to attend).

Pandemic Flu Initiative
Secretary Leavitt then noted that since the last AHIC meeting, the President sent to Congress a $7.1 billion pandemic flu initiative. The plan is a formal and robust preparedness initiative; national and international surveillance is a significant component, with biosurveillance and the capacity to identify when a pandemic or any other potentially dangerous medical condition occurs.

Introduction to Briefings

Dr. Brailer explained that based on discussions at the last Community meeting, AHIC's contractor, Health Systems Research, Inc., convened a small number of experts on the five topics that were identified and reviewed at the October 7 AHIC meeting (Biosurveillance, Consumer Empowerment, Chronic Disease Management, Quality Measurement, and E-Prescribing). These topics are broad, and Health Systems Research, Inc., was asked to: (1) provide an overview of the issue, (2) discuss specific breakthroughs (i.e., what could be accomplished in a way visible to the American public within 1-3 years), and (3) identify the factors that need to be considered to achieve that vision. Dr. Lawrence Bartlett, President of Health Systems Research, Inc., set the context for each of the five areas for which briefings had been prepared.

Briefing on Biosurveillance

Thomas Frieden, MD, MPH, Commissioner of Health for New York City, and John Loonsk, MD, Acting Director of Interoperability and Standards for the Office of the National Health Information Technology Coordinator, provided the Committee with a briefing on the topic of biosurveillance. Dr. Frieden noted that bringing public health surveillance, monitoring, and response into the electronic age is an important effort "because we want to use advances in information technology to achieve better monitoring and response through the public health community." Public health has a very large stake in AHIC's activities and in the field of health information technology. Public health is more than just surveillance—it includes prevention-focused personal health records, prevention-focused clinical decision support tools, population-wide chronic disease management, population-level quality monitoring, and public health surveillance.

Definition of Public Health

Public health surveillance involves: (1) detecting outbreaks and guiding and monitoring control activities, (2) detecting cases of public health importance, (3) monitoring distribution and spread of cases, (4) estimating burden and impact, (5) prioritizing allocation of resources, (6) understanding the natural history of disease, (7) providing a basis for epidemiologic research, and (8) evaluating interventions and public policies to determine whether they are working. With regard to biosurveillance, the objective ranges from all public health surveillance to a focus on the needs of emergency health events such as major disease outbreaks, biological and chemical terrorism, and mass casualties. There is widespread agreement that information technology can substantially improve surveillance both for ongoing public health and for health emergencies. Potential sources of information include clinical care, laboratories, coroners, and others.

Biosurveillance Activities

Dr. Frieden noted that there wide range of activities currently are underway in the area of biosurveillance at the federal, state, and local government level as well as in the private sector. At the national level, the Centers for Disease Control and Prevention (CDC) coordinates nationwide health surveillance and provides resources and expert guidance to state/local health authorities. It also operates several specific programs related to this field, such as the Public Health Information Network (which provides an architecture for public health information technology) and the BioSense Program (which supports the connection of clinical care to the public health and situational awareness at a national level). State and local health departments have the primary responsibility for public health surveillance and outbreak response. They have direct relationships with clinical providers and a wide range of public health informatics capacities. Many have begun implementing electronic clinical laboratory reporting, linkages to clinical information systems, involvement in regional health information organizations, etc.

Dr. Frieden described in detail two programs—one in North Carolina and one in New York City—that use electronic reporting. North Carolina has launched a statewide hospital-based clinical data monitoring system that monitors real-time inpatient, outpatient, and emergency department data to detect and manage health threats and disease outbreaks. This is a public-private partnership involving the North Carolina Division of Public Health and the North Carolina Hospital Association. In New York City, a system has been in place for more than 5 years involving ambulance dispatches, emergency department visits, pharmaceutical purchases, and outpatient visits. Approximately 50 hospitals report on a daily basis (representing about 90 percent of all emergency department visits in New York City). "It is important to recognize that there are challenges associated with biosurveillance, and not to overstate the utility of these systems and not to understate the complexity and difficulty associated with establishing them," Dr. Frieden noted. Identifying a clear goal is key. Many other organizations are involved, such as hospitals, clinics, other medical providers, academic partners and research laboratories, veterinary and wildlife professionals, other federal agencies, professional and scientific associations, vendors, and the pharmaceutical industry.

Key Stakeholders

Dr. Loonsk explained that all levels of public health stand to benefit from increased access to health care data and activities supporting surveillance needs. Key stakeholders that stand to benefit include: (1) the public (through protection from threats to health and safety as well as improved health outcomes); (2) state and local public health agencies (through improved real-time surveillance, connections to clinical providers, and improved health information technology capacity); (3) DHHS (through improved nationwide health surveillance and connection to state/local health authorities); (4) hospitals, clinics, and other providers (through improved patient care and connection to state/local health authorities, less cumbersome reporting requirements,

increased access to public health data, and the ability to forecast staff resources and demands; and (5) others, such as researchers and developers, the preparedness community, those who pay for health care, and law enforcement.

Major Needs
Major needs associated with moving this area forward were identified and include:

- Standardize reporting of electronic clinical care data to public health so that those data are comparable across different provider jurisdictions.
- Facilitate real-time data reporting.
- Address gaps in emergency detection and response.
- Support innovative programs for specific goals (e.g., influenza surveillance).
- Explore/expand/evaluate new information sources, data, and reporting methods.
- Assure patient privacy and confidentiality.
- Identify best practices and public health utility of various approaches, such as highly complex analytic and informatics challenges, and difficult-to-investigate and validate surveillance findings.
- Improve the highly variable state/local health information technology capacity.
- Increase and advance coordination of surveillance activities among state, local, and federal health authorities. A wide variety of local, state, and federal programs are under development, and there is a desire for rapid implementation of improved nationwide surveillance (e.g., for pandemic influenza, bioterrorism, etc.). In addition, there is a need for local investigation and response, as well as a need to expand beyond one level of public health.

Potential Implementation and Acceleration Opportunities
Dr. Loonsk discussed potential implementation and acceleration opportunities, such as evaluating, determining best practices, and documenting public health utility. Shorter-term opportunities include: (1) funding key leverage inputs to improve electronic capacity at state, local, and federal levels; (2) establishing electronic laboratory result reporting to state/local public health agencies; (3) funding the evaluation of rapid diagnostic assays to follow up clinical syndromes; and (4) resolving privacy issues and confusion.

Possible Breakthroughs
Possible breakthroughs for advancing the area of electronic biosurveillance include:

- Strengthening existing public health information technology systems.
- Promoting the delivery of standardized health care data to public health for biosurveillance purposes.

- Building a nationwide system that collects information from different jurisdictions and/or clinical facilities and enables both local and central analysis, alerts, and actions.

Discussion:

Discussion in this area focused largely on the status and capabilities of current surveillance systems, establishing a biosurveillance system, standards and certifications, and the formation of a workgroup with a broad and specific charge.

The following are highlights of discussions in these and other areas.

Current Surveillance Systems
"On a national level, there are a number of disease-specific surveillance systems, and then there is the national notifiable disease surveillance system, which is not currently real time and focuses specifically on reportable diseases that have been agreed upon by state epidemiologists and the CDC." – Dr. Loonsk

"In the broader sense, for more than 100 years there has been reporting form all of the jurisdictions to the CDC depending on what the diagnosed disease is." – Dr. Frieden

"Our task right now is to ask the question, how can we improve this, and improve it quickly? We are now faced not just with the potential of a bioterrorism event, we are faced with the potential for a pandemic." – Secretary Leavitt

"The CDC is ponying a fair amount of money out to states and local communities for the development of these systems. I just represented the President asking for millions and millions more based on our need and the pandemic to get it done. I'm not interested in waiting 3 or 4 years for that to be available. We are going to deploy these resources, they will be deployed in a way that intends to give us at least the readily available progress as soon as possible." – Secretary Leavitt

"With respect to the clinical and syndromic surveillance, we have a system or algorithmic software program used to identify trends, we'd be glad to share that with any system, any state, anywhere. We send our data electronically to the CDC… Maybe [we could] pick two or three states and come up with a scheme for how to go forward." – Dr. Winkenwerder

"There already are more than 10 cities with systems in place, so looking at those, evaluating them, refining them, seeing which are working and which are not would get you a long way." – Dr. Frieden

"We collect much of this information today, in a variety of formats and in far more than 10 cities today. It can be delivered to CDC or whoever, tell us what data you want and what format you want it in, you can get it pretty quickly. It comes down to what do you want, and how do you want it? In the near term, we have to realize that parts of rural America will be left out of this." – Mr. Roob

"We have networks in the United States of coordinating care delivery that have 670 hospitals and 50 states in one system. We have health care providers that are in major networks that have 480 different network providers scattered across 41 states. If we can indeed engage them on this issue in a meaningful way, I think we can move [this] initiative and [the goals] of AHIC forward in a meaningful way with the validation we need and the public trust we need to be able to say that the

consumer and patient voice is a part of the process and wants to be a part of the solution." – Ms. Davenport-Ennis

Establishing a Biosurveillance System

"There is the recognition that there is an important set of activities to be carried out at each of those levels [i.e., federal, local, state]. Three things that the group thought was essential were to make the data more available and make it available as quickly as possible, develop a system in which the data moves across levels as quickly as possible for different uses, and, at certain levels, make sure that the infrastructure is there to use the information in the context of a broad, multi-tier system." – Dr. Bartlett

"Who manages the relationship for public health reporting so that if there is a problem, who are they going to call? How will the data be used, what is the goal? Stating that up front is critical to be clear on what success would look like, what would failure look like, and to address concerns people might have. How feasible and useful is it going to be?… It is important not to overstate the value of these systems, which are limited, or to understate the difficulty of setting them up." – Dr. Frieden

"There are complexities associated with the data, and consistency is a major issue. If you are going to sort through large quantities of data, it is difficult if one source provides them in one way and another source provides them in another way… We are seeing data that have potential for public health that are being managed at all different levels, at the health system level, sometimes across multiple jurisdictions, sometimes the individual hospital level, yet there are still few incentives for health care providers to make data available to public health… It is actually remarkable that as many of the health care providers nationally provide data when there are these obstacles such as privacy concerns, technical infrastructure to deliver the data, etc." – Dr. Loonsk

"There is a lot that is achievable here. Many of the systems can be set up pretty quickly. For example, in our system, we accept any format that hospitals want to send. We don't ask them to transform their data in any way. We do that work. In addition to the cross-jurisdictional outbreak recognition, it will be important to delineate what are the goals of the system, what are the criteria for success or failure, who would the users be, and to identify best practices out there… If those things can be established, then we can move forward very rapidly." – Dr. Frieden

"Lab results are a clear winner for supporting public health purposes. They are substantiated in their value. Emergency room data are specifically of value to public health. The 'what' for me is lab results from health care and clinical care encounters and emergency room data. The 'how' is a little complicated because even if public health has the resources to try to make these connections, it is difficult for public health to go inside a hospital or clinical care environment to bring those data out." – Dr. Loonsk

"I want to see more progress made on biosurveillance faster than that and I'd like to see it integrated at some point and we have the capacity financially to help achieve that, but I don't want to deploy those resources until we have a clear vision of what can be effected in the next 12-18 months and that it will ultimately fold into the pure vision." – Secretary Leavitt

"Patients and consumers in the United States are very concerned about the issue of bioterrorism and biosurveillance. I think as long as we can assure them that there is privacy in place and that information can be deidentified, they will lend you support in public-private nonprofit partnership as you move forward with this issue." – Ms. Davenport-Ennis

"Small and medium-sized medical practices are already in the trenches, and they need to be part of the solution for public health reporting. Whether it is 15 percent of physicians in small practices or 20 percent who are using electronic health records now, those practices and the vendors who supply them are often very different than those who supply large health organizations. Around the country, there are a number of different practice-based research network that include more than 1,000 practices, and about 20-25 percent use electronic health records, and they need to be part of the solution too." – Dr. Kibbe

Standards and Certifications

"We have the capacity to say 'let's identify the standards that we believe harmonize the best, we have a process to do that, and once we have that, the Secretary of Health and Human Services is prepared to say we have a rule that if you do business with Medicare or Medicaid, we expect that you will be adapting to this harmonized set of standards.' We have commitment from public employees and federal employees." – Secretary Leavitt

"We haven't really talked about physicians in small practices or medium-sized practices. As we are building in criteria for certification of electronic health records, we ought to consider these public health data. [We] have to consider small and medium-sized markets. What is developed for emergency rooms should not be different from what is developed for use outside of them." – Dr. Kibbe

"There are two or three decisions that need to be made among and between standards. What we need as a group is for someone to bring back to us a group of harmonized standards that were recommended to us so that we could then say to our certification group, 'show a way in which we can say here are products, here are systems that meet those very basic results.' Once that is the case we have the ability to say 'we'll adopt them, and we'll start to fund systems that meet those standards.'" – Secretary Leavitt

"Let's add up DOD, VA, potentially the federal employee health system, 15-20 percent of small medical practices currently using electronic health records, and there are dozens of large practice groups that have this capability. If we were to aggregate on the two or three or four most basic points and begin to see that data flow, it would be a quantum leap forward and we could begin to work toward the pure vision based on that." – Secretary Leavitt

Workgroup Formation and Charges to the Workgroup

Secretary Leavitt informed the Community that a workgroup will be formed to address the broad and specific charges developed during this discussion session. After some discussion regarding the broad charge, it was refined to read as follows:

- Implement real-time nationwide public health event monitoring (individuals and populations) and support rapid response management across public health and care delivery communities and other authorized government agencies.

Similarly, the specific charge was developed as follows:

- Within 1 year, transmit essential ambulatory care and emergency department visit, utilization, and lab result data in standardized and anonymized format to authorized public health agencies with less than 1 day lag time from electronically enabled health care delivery and public health systems.

Consensus was reached on both the broad and specific charge.

"[The issue of] privacy will come up in every statement, and every expression. The way the importance of privacy is expressed in every one of these charges needs to be revisited." – Secretary Leavitt

"[It] will actually slow down the process if we have to anonymize the data, because the data are collected from a real person. We would have to put a filter into the system to anonymize it for CDC as we collect it locally." – Mr. Roob

"That is a very important policy decision, and I would like to suggest that we leave it as 'anonymize' in the charge, and recognize that at some point we have a policy decision to make as to whether the speed compromise is one that is necessary to make. I worry about going into it with the thought that we would have anything other than anonymized data that was going through a public health monitoring system… We need to revisit this issue, because it will slow it down, this will be at the crossroads of privacy versus expediency." – Secretary Leavitt

"If we identified the three or four basic indicators that were the best predictors of trouble, [that] wouldn't necessarily pinpoint it, but [it might] when we team with the systems we know are in place. [That would] begin to create the rudimentary pieces of the most basic system that give the data flowing so that at least we have a spotty net but one that is big enough to catch the obvious problems." – Secretary Leavitt

"[We] may take out the concept of utilization [in the specific charge] and build off of the use information from primary care and emergency department visit information… Prior to our next meeting, as Chair, I will appoint a workgroup that will be given this charge, understanding that the language of the exact charge may be modified in slight ways. We will be prepared by our next meeting to reveal the assignments of the workgroup, and will revisit this at our next meeting." – Secretary Leavitt

Briefing on Consumer Empowerment

Reed Tuckson, MD, United Health Group, and David Lansky, PhD, Markle Foundation, provided the Committee with a briefing on the topic of consumer empowerment. Consumer empowerment in a health information technology infrastructure facilitates and advances the realization of patient-centered health promotion/disease prevention and medical care delivery. Dr. Tuckson explained that there is an inevitable movement in health care involving a shift to a much more patient-centered environment. The number of Americans living with chronic diseases is increasing, and they will require intense medical intervention as well as a coordinated variety of nonmedical social supportive services.

Consumer empowerment also encourages and enables activated consumers who are supported in their health and medical decisions, and in their relationship with their health care team. "We are moving inevitably towards a consumerism movement in this nation in health care that is also associated with new benefit design for health care, whether that is health care offered to through the public or private sector, with increasing onus on the individual to be able to make choices and decisions." In addition, consumer empowerment facilitates and supports individuals to capture, manage, and act upon their personal health information across care delivery settings. People will need to be engaged with information to make better choices "the right care for the right person at the right time from the right physician and the right hospital that meets their individual needs." There also is a need to focus on how to help people capture information across delivery care settings, how can they participate in getting that information, and taking action.

Stakeholder Benefits
All key stakeholders will benefit from this movement toward coordinated opportunity for information and decision support. Stakeholders include: (1) patients, families, and consumers; (2) physicians, nurses, pharmacists, and other health professionals; (3) hospitals, nursing homes, and other care facilities; (4) health plans coordinating care across settings; (5) private and public health care purchasers; (6) health care regulators and accreditors; and (7) national, state, and local public health initiatives.

Major Barriers
A number of major barriers need to be addressed to improve consumer empowerment. For example, there is an inability to locate patient information across multiple care settings in a fragmented care delivery system. It is unclear how to authenticate each individual, and there is significant segmentation of the consumer market (e.g., small, diffuse populations with highly specific needs). There are significant privacy concerns regarding the Internet and health information access on the part of government, health plans, and employers. There also is a low level of public trust in health information services not connected to a personal physician. Additional barriers include the fact that there are few electronic health records with which to connect; no standards for information contributed by patients; no established business model for consumer-facing applications; health information is complex and unfamiliar to most people; and individuals who have low literacy, poor access to technology, and/or a lack of experience with health decisionmaking face additional barriers.

Moving Consumer Empowerment Forward
Dr. Lansky noted that there is a great deal of thoughtful activity in the field of moving consumer empowerment forward in the health care setting, particularly on the part of the government. Examples include the CMS beneficiary portal and VHA and DOD personal health records. There also are a number of uncoordinated initiatives, such as the U.S. Department of Agriculture's nutrition tracking system and the National Cancer Institute's ca-Match system. There are very few efforts at the state level in this regard, however.

In the private sector, product and service management tools have been developed (e.g., pharmacy online tools, home health monitoring devices), and there are provider portals to access electronic health records. Some health plans have pre-populated personal health records and collaborate on standards for content and interoperability. There also are commercial personal health record products offered through health plans, employers, and direct-to-consumer approaches.

Implementation and Acceleration Opportunities
With regard to potential implementation and acceleration opportunities, the following four areas were discussed:

- **Personal health record** (complete, personally controlled health information—family history, treatments, medications, results, symptoms, preventive actions, allergies, etc.). Challenges at this stage include the fact that there are many definitions, and little consensus on what a personal health record is. Personal health records need to be specified in terms of functions and features for particular populations, and it is not yet feasible to base personal health records on a connection to electronic health records or regional health information organizations. Practical choices to move down this path include: (1) building public health records from existing digital data systems, (2) offering one or more public health records for specific populations, and (3) stimulating the public health records market through data-sharing strategies. In addition, there are significant

privacy concerns, and it is a formidable challenge to authenticate individuals and maintain security.

- **Medication summary** (current and recent prescriptions, prescriber, dose, date instructions). Medication summaries provide high value to a large population and can be initiated from existing digital systems. Significant experience exists in using medication summaries (e.g., the KatrinaHealth model), and they are useful in individual emergency situations for a broad cross-section of consumers. Medication summaries can serve as a supplement to the existing commitment to e-prescribing and can support increased consumer participation in safety (e.g., by correcting errors and identifying adverse events). There are privacy and authentication challenges, but the domain is narrower in that the patient is already a "customer" of a pharmacy or insurance plan.

- **Health record locator** (indexing system that permits user to find location of a person's health information across entire community). Health record locators provide for adjudication of identities across decentralized networks and are necessary infrastructure to most federated health information exchange strategies. Use of health record locators likely would improve short-term information retrieval and would serve as a useful transitional platform between digital and paper worlds as well as Internet and phone/fax modes. However, health record locators are difficult to populate without a business/social infrastructure, agreements, and policies, and will require the cooperation of numerous parties.

- **Registration information** (single entry of the "clipboard"—demographics, insurance, family history, medical history). Registration information is easy for the public to understand and why it is beneficial (increased convenience, accuracy). It is a valuable foundation for later information exchange infrastructure. A significant challenge is that it requires authentication and privacy issues to be broadly addressed. However, use of digital registration information would introduce the concepts of information portability and patient control; it also carries the potential for replicating errors, however.

Discussion:

Discussion in this area focused largely on personal health records, registration information, standardization, and the formation of a workgroup with a broad and specific charge.

The following are highlights of discussions in these and other areas.

Personal Health Records
"Implementing personal health records in their full form is a formidable challenge; in terms of short-term goals, developing medication summaries is probably where the data resources are most available and recent experience would provide a starting point." – Dr. Lansky

"Interoperability is the key here. Whether we start out with a defined data set that is only medications and registration information or whether we create a personal health record that is simply medications and problems and immunizations, the real issue here is to do it in a way that whether one is dealing with this information inside a large institution or between institutions that the information technology vendors provide ways for the users of that information to allow those machines to read, interpret, store, manage, and transmit data. We have the technology to do this now, what we really need is to have agreement around the data. What is the data set that we are talking about, what available standards are there to provide that information to be interoperable

among different information systems, and I think those standards are already available." – Dr. Kibbe

"The electronic health record… is what happens in the clinical delivery of care across settings, the personal health record being specific information such as medication history, laboratory procedures, etc. that are directed at the individual person. The personal health record is a more lower hanging fruit and more accessible than the electronic health record… [The] electronic health record is more of a connectivity across care settings that unites and organizes the providers of care in a seamless and interconnected type of way." – Dr. Tuckson

"There is going to be a lot of anxiety about people accessing other people's systems, and the capacity to acknowledge different people having different appetites and capacities for risk with their information." – Secretary Leavitt

"There is relatively little public interest right now [in getting consumers to use personal health records], and what are the expectations around provider willingness to use these? In [the] early stages, people are very concerned about privacy issues and want to own their personal health records. Providers want to know how reliable the data are, particularly if consumers can change it." – Ms. Lehnhard

"I think there would be a dramatic increase [in interest if personal health records could be pre-populated]. Most patients know information about them exists outside their control. One of the problems with the PHR is the portability of the information… There are not really standards for transactions, such as scheduling appointments. [It is] one thing to pre-populate and make it an information base, it is another thing to make it interactive. I'm not sure that the commercial personal health record is one that is going to get a lot of acceptance where you are mainly entering your own information or trying to get it from a variety of sources." – Mr. Hutchinson

"A [primary] reason the public may not be as excited about personal health records is that they do now know about [them]." – Dr. Tuckson

"One of the problems that family physicians and others in primary care have is [providing] a personal health record that the patient can understand… We have developed in working groups at numerous types of specialty society organizations…standards for the part of the personal health record…for the basic information that a patient needs to have—demographics, medication use, etc. We are not only invested heavily in the development of that standard, we will promote it actively in our membership. I can almost guarantee that thousands of physicians will be able to provide that to patients within the next year, if we can move to that point very quickly. There are more than 50 vendors who are capable of delivering this." – Dr. Kibbe

"Don't overlook the potential of pre-populating personal health records with claims data. [This is] not as rich as information from a provider, but is considered pretty reliable, and is faster and more universal than clinical data from physicians. In terms of getting people to use personal health records, one of the things we think has potential is creating incentives for people who need chronic disease management to use a personal health record and take it into their physician and have the information available to the physician to see if they have done what is in their suggested course of treatment…that's a population we want to target and capture." – Ms. Lehnhard

"There are two big things we learned from KatrinaHealth about the source of the information and medications…There are multiple sources of information [and they vary]….Pharmacies are very committed to delivering medication history not only to patients but also to physicians. The

challenge is who is the final arbitrator on [determining] that that patient is who they say they are…Payers are the natural source to speed things up. Authentication is the one item in KatrinaHealth that we learned is the biggest risk." – Mr. Hutchinson

Registration Information
"At least for those people insured on Medicare or Medicaid, we have some kind of card, and insurance companies already have a lot of the information. Is there a way to at least in terms of some of the simple areas start with basic demographics, insurance coverage, and a few other data points… that the health insurance community or the government that provides health insurance could do to help the patient along? [This] would have to be done in concert with the providers." – Mr. Kahn

"There is a template to build upon, there is available technology to provide insurance information on a simple card, similar to a credit card." – Dr. Tuckson

"We are looking for a breakthrough project, something that we can accomplish in the next 12 months that will move this forward. It is my registration in a simplified form with the capacity to populate it with prescription drug information. It seems quite likely to me that if we could accomplish the basic architecture for that basic system, that adding additional components to it [such as] immunization records and chronic disease management [could occur] one piece at a time." – Secretary Leavitt

"The medication history is part of the core history that would be portable registration information. My sense from the briefing group is that those give us the best benefit in the shortest time with the least hurdles faced. All of these point towards to the broad overarching goal of having a personal health record, however that comes to be defined and widely available to the American public." – Dr. Brailer

"We recently put out a Request for Information on how our information includes claims data, demographics, insurance information, [and] other basic facts that are along these lines, how this information could be used to support personal health records…Medicare certainly could be ready to support this kind of program, working with the prescription drug plans and the industry." – Dr. McClellan

"I think there is a challenge right up front for a workgroup to scope in this question of the registration information. The medical history seems quite well circumscribed because it is further along. It would be my hope that we could say 'what are the rings of access to various types of registration information' and work out very core basic information to ultimately the personal health record and asking questions about benefit versus cost along the way. We can't do that in real time, but…one of the first challenges we can ask the work group to do is to come back to us on the scope of what is this registration question." – Dr. Brailer

Standardization
"The timeliness of access to medical information is critical to patients…Today, the patient consumer is very conflicted, they feel they own it, they pay for insurance, they pay for their appropriate portion of their medical care, but when it comes time to get a copy of a lab result or a scan result and the supporting documentation…it can take days or weeks to get that information. So as we are addressing standardization, please let's include the issue of timeliness in the process." – Ms. Davenport-Ennis

"My sense is that if we have standards and an architecture and motivation for people to populate wherever they were resident, that a lot of different ways would appear, there would be a lot of different innovations…there would be a lot of different places where that information could surface and be provided, once [it] was entered. At our next meeting, we [will] come back to a work group that has been formed, with clear timeframes, with a bias toward getting this done within a year, at least the architecture and sources identified, medication problems resolved, and a game plan to roll it out." – Secretary Leavitt

Workgroup Formation and Charges to the Workgroup

Secretary Leavitt informed the Community that a workgroup will be formed to address the broad and specific charges developed during this discussion session. After some discussion regarding the broad charge, it was refined to read as follows:

- Gain wide adoption of a personal health record that is easy to use, portable, longitudinal, and consumer centered.

Specific charges include the following:

- Within 1 year, deploy to targeted populations a pre-populated, consumer-directed and secure electronic registration summary.

- Within 1 year, deploy a widely available pre-populated medication history linked to the registration summary.

"For the record, I want to make sure we recognize the number of uninsured in this country both for not only medical insurance but for drug insurance as well." – Mr. Hutchinson

"I would hope as we walk out of here today that the world could say 'today an important step was taken to do away with the medical clipboard as we know it.' It is important that before we leave today, there has been a good indication of that charge, so that when we do empanel the work group that they and the public know our intent." – Secretary Leavitt

Briefing on Chronic Disease Management

Sophia Chang, MD, MPH, of the California HealthCare Foundation, briefed the Community on the topic of chronic disease management.

Potential Opportunities

There are three overarching potential opportunities in the area of chronic disease management: (1) improving care coordination by enhancing the provider/patient connectivity, (2) leveraging everyday technologies for chronic disease support systems, and (3) spotlighting innovations in chronic disease management. The medical care costs for individuals who have chronic diseases (more than 90 million Americans) account for more than 75 percent of the Nation's $1.4 trillion medical care costs. The top five conditions are heart disease, cancer, stroke, diabetes, and pulmonary diseases. These conditions are compounded and exacerbated by mental health disorders, including depression. There is evidence that providing good chronic disease care will not only improve patient outcomes but will also save money.

Improving Chronic Disease Management
Good chronic disease care can be enabled by improving health information and moving evidence into practice. Good chronic disease care also involves synthesizing huge volumes of information and making the right decisions at the right time. This often works counter to the acute care paradigm, and involves helping patients manage their condition (more than 90 percent of chronic disease management is done by the patient). Good chronic disease care also entails the effective coordination of complex care (across multiple patient conditions and many players).

There are key tools that can be better promulgated, many of which already exist, that can help provide the right information at the right time to support both patients and providers in chronic disease management. For example, provider decision support tools include electronic health records, from electronic chart to interactive decision support systems. Evidence suggests that not all commercial products lead to better chronic care, however. Another provider decision support tool is the disease registry/chronic disease management system, which involves automated tracking of patient populations and their care. Personal digital assistants, primarily used to support medication prescribing, is an example of another tool, as are disease management programs, which work with higher risk patients and are focused on supporting the patient as well as the provider. Patient support tools include home monitoring devices (to remind patients to monitor key clinical information and transmit it back to providers or health care managers), personal health records (there is a growing industry to provide tools for patients to manage their own health information), and Web-based education and support (supported by disease management programs, health plans, employers, and disease-specific consumer groups).

"We are also starting to see convergence between systems on the provider side and systems on the patient side." Examples include Web portals to electronic health records systems, "sharable" personal health records, and telehealth for virtual interactions. Examples of important public-sector initiatives in this area include CMS' Medicare Health Support (formerly known as the Chronic Care Improvement Program) and VA's Care Coordination Home Telehealth.

Key Stakeholders
Dr. Chang discussed key stakeholders and the benefits they accrue from advances in this area as well as major barriers, such as information technology product issues (e.g., user acceptance of medical/health-specific technologies, competition and proprietary nature of the market, and interoperability); environmental issues (e.g., financing mechanisms, regulatory barriers, and patient privacy concerns); and the fact that information technology interventions are necessary, but insufficient to improve chronic disease care. To use these systems effectively will require change in the behavior of providers and provider systems.

Breakthrough Project Recommendations
Parameters for initial breakthrough project recommendations include focusing on an important condition, piggybacking on successful existing programs whenever possible, leveraging a combination of stakeholders as well as sources of electronic health information, clearly defining a breakthrough success, and focusing on mass dissemination of evidence-based technologies.

Implementation and Acceleration Opportunities
Dr. Chang then discussed three potential implementation and acceleration opportunities:

- **Improve care coordination with electronic connectivity among providers and patients.** This includes: (1) better clinician-to-clinician communication (e.g., through instant messaging, Web-based care plans, audio chat); (2) better clinician-to-patient communication (e.g., through personal health record access to electronic health records,

secure e-mail, instant message channels, and interactive systems like voice response and telehealth; and (3) better patient-to-caregivers/family communication (e.g., through online collaborative care coordination spaces and search tools for personal health information). Networking caregivers and patients, especially patients with chronic conditions, using modern Internet-based technologies also applies to this area.

- **Leverage everyday technologies for chronic disease support systems.** This includes using cell phones/services as tools for real-time, all-the-time monitoring, disease management television channels with custom content, and standards for in-home remote medical monitoring devices. There should be an emphasis on research and development of the use of today's and tomorrow's everyday technologies for new health and wellness services, and the need for standards for remote medical monitoring devices should be emphasized. In addition, social marketing/pop culture could be used to promote adoption.

- **Spotlight innovations in chronic disease management.** One key role that AHIC could play in this area would be to help articulate and spotlight the range of activities that are out there and what seems to be working. Convening a national workshop/forum for identifying and disseminating proven technologies or for identifying promising technologies and encouraging efficacy testing may be one approach. Another approach would be to gather top public and private leaders to address the most significant barriers to widespread adoption. Creating community-sponsored chronic care innovation awards could help promote innovation and opportunities in this area, as could coordinating private and public funding pools focused on innovative chronic disease management technologies.

Discussion:

Discussion in this area focused largely on incentives. The following are highlights of discussions in these and other areas.

Incentives

"[We need to] find ways of linking additional compensation for physicians to the particular standards. One of the areas that seems so ripe for that would be to pick out the most fruitful and advanced of these technologies and begin to create specific incentives for physicians and practitioners to begin driving and then link them to the standards that we establish. If vendors will create equipment that meets standards that are certified by our certification process and then meet the requirement of having a certain number of their patients using it, then we could help pay for that technology." – Secretary Leavitt

"There has to be a motivation that has to be given to care providers on top of new technology if you are really going to get a change." – Mr. Hutchinson

"As we think about developing health records that can be used for the chronically ill, I would encourage us from a technological point of view to be thoughtful and sensitive to including prompts and reminders to the patient and principally to their caregivers and creating a system of financial incentives…that could be made available to those that are doing their very best as a unit with a chronically or critically ill patient to comply to the treatment protocol and manage the cost of the system appropriately. There is every opportunity to do that technologically, and medically, and with the health plans and CMS. At the end of the day, please be thoughtful of compliance,

quality of life, and the desire of caregivers and patients to cooperate in improving life for the chronically ill." – Ms. Davenport-Ennis

Other Discussion Highlights

"In thinking about the lower hanging fruit in terms of the interfit between providers and patients and what kind of information could be shared and used effectively, it was a combination of existing lab, pharmacy, and public monitoring data that we discussed were things that could be adopted and implemented relatively quickly. Do we effectively empower patients to manage their chronic condition? I can't argue that we've really successfully figured that out…But we can create more efficiencies in the practice so that the physician isn't spending his or her time doing a lot of paperwork and then actually has the time to create that shared care plan with the patient and really understand what the patient wants to work on." – Dr. Chang

"If we do go looking for conditions, I'd like to plead for diabetes, because it is very common across the ages, it leads to other conditions, and also, its control is both behavioral and mechanical, whereas a lot of these other conditions are a little more amorphous." – Mr. Kahn

"The developmentally disabled community is demonstrably no longer institutionalized, they are living in waiver homes out in the community and working on a regular basis… Those folks are in the community, and because they are in the community, they are receiving care now, their clinical medical care is frankly disconnected frequently from the care that they receive from the waiver provider, which is different from where they are actually doing their sheltered work. So an ability to connect that and see differences across that would be economically helpful for our program and therefore for HHS. But it is a relatively small population, even though it exists across the country. Obviously the Medicaid population in our nursing homes are all Medicare when they leave our facility, we don't integrate that care whatsoever. If you are looking to save costs, those are populations that you might look at." – Mr. Roob

"I think the piece that is perhaps hardest and perhaps sits within the domain of this group is the issue of the multiplicity of vendors and activities out there and the need for interoperability and harmonization about the data elements that will go from provider to provider and that need to be recognizable by the different systems and be able to be read and manipulated as well. That is probably the hardest area in this particular [domain]." – Dr. Bartlett

"If we were able to determine one area where we were most persuaded that the benefit would be there and then use our process to harmonize the standards, we could use our process to then create certification standards. Then use our process to create a pilot that would reward through Medicaid, Medicare, DoD, VA, etc. etc., this concept could be proven in short order and with exactness. I hope that this is one of the places this conversation leads us, that we don't have to solve the entire spectrum in the short term, but if our near-term deliverable could be a major short-term pilot, it could have profound impact, not just on the discussion of chronic diseases, but the whole area of do we link quality to pain." – Secretary Leavitt

"One of the most confounding problems we have in chronic illness, particularly with the elderly, is managing medications and managing the errors that occur around medications when they occur." – Dr. Kibbe

"We have the capacity to enhance some existing projects substantially and there are unique opportunities right now. One of the outcomes of our meeting today could well be the development of a working group to explore among the plans and among the players what our best opportunities are." – Secretary Leavitt

Briefing on E-Prescribing

Jonathan Teich, MD, PhD, Harvard University, and Kelly Cronin, MPH, CMS, provided a briefing on e-prescribing.

Problems With Paper Prescribing
Dr. Teich noted that 85-90 percent of providers still use paper for prescribing. It is quick and convenient to write paper prescriptions, but there are significant problems related to safety (illegible writing leading to significant errors and adverse events, not checked for errors against the patients' medications or condition, poor recordkeeping, and poor transfer to other settings); costs (from callbacks for clarification, lost prescriptions, reprints, insurance problems); and quality (inability to provide formulary-specific/condition-specific information, non-compliance due to costs).

Definition and Benefits of E-Prescribing
Dr. Teich explained that e-prescribing is defined in a number of different ways but essentially involves all systems that use a computer or computerized device in any form to assist in creating a prescription. It also involves modifying, editing, transmitting, and assessing. The spectrum of e-prescribing also includes clinical decision support, one-way and multi-way communication, and integration with electronic health records and practice management systems. One of the largest benefits of e-prescribing and its contribution to safety and quality is clinical decision support—the ability to check, correct, and offer suggestions and recommendations on the prescription as it has been written. E-prescribing contributes to clinical decision support in safety-based and reimbursement-based ways as well as through providing just-in-time information.

The benefits of e-prescribing have been well documented over the years. As many as 18 percent of ambulatory patients per year may experience adverse drug events, and approximately 77 percent of potential adverse drug events are preventable through the use of e-prescribing. It is estimated that adoption of a nationwide ambulatory computerized provider order entry system, which includes e-prescribing, would eliminate 2.1 million adverse drug events per year (136,000 life-threatening events per year) and save $29 billion.

Increasing Use of E-Prescribing
Ms. Cronin noted that only 10-16 percent of U.S. physicians use e-prescribing. That number appears to be increasing, particularly based on the complexity of Medicare part D and the growing recognition of the impact of handwritten prescription errors. In addition the KatrinaHealth project focused attention on this issue, and the costs associated with this technology continue to decrease. Pilot projects involving e-prescribing are underway in several states (e.g., Michigan, Florida, Rhode Island).

Barriers to Implementation
Despite an increased overall awareness of e-prescribing, there is a lack of credible return on investment for system purchase, caregivers are skeptical of benefit claims due to mixed messages, and the successes of e-prescribing are not well publicized. Ms. Cronin described a number of major barriers to adoption of e-prescribing, including: (1) physician resistance to change, (2) an inadequate business model and misalignment of incentives, (3) some pharmacies are unwilling or unready for e-prescribing, (4) some systems are complex and slow, (5) the cost of buying and selling these systems, (6) it is not a standard of care, and (7) controversy over security requirements for prescribing controlled substances.

Implementation and Acceleration Opportunities
Dr. Teich then discussed two potential implementation and acceleration opportunities in this area:

- **Complete development of certification criteria and process specifically for e-prescribing.** Specific attention should be paid to decision support/clinical value, electronic health record migration and interoperability, usability, and connectivity. One possible approach would be convening an expert panel that includes key stakeholders presenting recommendations to the Certification Commission.

- **Develop a national resource repository for executable medication-related decision support for use by vendors/providers.** A possible approach in this regard could involve having a public/private collaborative initiate a pilot project in 2006. Initial discussions from the October 2005 AHIC meeting could provide a basis for this project.

Ms. Cronin described two additional potential implementation and acceleration opportunities in the area of e-prescribing:

- **Finish and enforce key standards, and include them in certification.** Specific attention should be paid to RxNorm (the "doctor-friendly" drug dictionary), formulary information, payer/plan identification, and differing state Board of Pharmacy regulations. A possible approach involves convening an expert group that includes key stakeholders to resolve this issue.

- **Tie financial support to certified systems.** Three exceptions have been proposed under the Stark Amendment and the anti-kickback statute that recognize the importance of certification for electronic health records. These exceptions, as well as pay-for-performance plan requirements for certified e-prescribing and electronic health record systems, could be used to tie financial support to certified systems. Two possible approaches were discussed: (1) finalizing the Stark and anti-kickback regulations with certified e-prescription and electronic health records exceptions, and (2) having payers accept data on performance from certified electronic health records for pay-for-performance initiatives.

Discussion:

Discussion in this area focused largely on current capabilities, adopting e-prescribing (both on the part of physicians to utilize e-prescribing and on the part of pharmacies to receive e-prescriptions, and whether a working group with a broad charge should be formed in this area.

The following are highlights of discussions in these and other areas.

Current Capabilities
"Over the past year, there has been no question that the capability to do e-prescribing within an electronic health record has become if not the most important value added incentive for small to medium-sized medical practices in primary care to purchase electronic health, it is certainly right up there. Particularly among small to medium-sized medical practices that are independently owned…e-prescribing is really important…one of the problems is that it is not available everywhere." – Dr. Kibbe

"There are about 150,000 to 175,000 physicians out there using something today with which they can electronically prescribe. But as pointed out by the panel, it is primarily by fax, and we have to find a way, an incentive, of how we go back and upgrade those systems… Forty-three states in the United States now allow electronic reporting. Five states are in the process of voting on their final regulations to clear it. Fifteen percent of physicians write 50 percent of prescription volume, and 30 percent of physicians write 83 percent of the prescription volume…if we can get just those 30 percent of physicians, and automate 83 percent of prescriptions in the United States to be done electronically, this is a platform as much as a process that you build on." – Mr. Hutchinson

"One out of two pharmacies in the U.S. are live and there are prescriptions being processed in 45 states today. The vast majority of those pharmacies are chains, so 75-80 percent of the chain stores in the U.S. are live and able to receive prescriptions electronically." – Mr. Hutchinson

Adopting E-Prescribing

"It is inconceivable to me that with everything else that goes on over the Internet, and we all cite the wonderful results that you get when you do it, the errors that could be alleviated, if you're looking for low hanging fruit, isn't this the biggest apple closest to the ground?" – Dr. Barrett

"As medicine has become more of a business, people look for business models. You're right about all the money that it can save, but if you look more deeply into those same graphs, you find out that much of the savings do not accrue to those who have to go out and buy the systems." – Dr. Teich

"A lot of the surveys that have measured EHR adoption also measured functionality specific to e-prescribing…there is an adoption gap across the board that is not only predicted by practice size but also geography and other characteristics." – Ms. Cronin

"Physicians don't want to pay for [e-prescribing], they want someone to pay them to do it, and in some cases, the insurers in a few states have begun to take it up and theoretically, with the new regulations, hospitals could pay physicians to do it…It ought to be a standard of care…It seems to me we are at a crossroads. If this is the right thing to do, and it is, then the question is does the government just figure out a way…to just tell doctors that they have to do this, or do you figure out how to get other people to pay for it for the doctors?" – Mr. Kahn

"Most of those software products are contracted, have in fact made the technology changes, or are in the process of and will in the near future. All of the major EHR systems and all of the major e-prescribing systems are connected into those networks. If you really want to make an impact in the next 12 months, it is going back to that current install base and converting them off of the faxes." – Mr. Hutchinson

"If 30 percent of the prescribers account for 83 percent of prescriptions, then let's look at focusing incentives on that 30 percent." – Dr. Kolodner

"On the one hand, you could just require the doctors to do [adopt e-prescribing]. If you need Congress to do it, Congress would probably do it for you…that's one side of the continuum. The other side of the continuum is to figure out how to make the market work and to figure out how to have the private sector do it. There, the insurers have to be key players, because they are the ones who save money for their insureds from the whole drug process." – Mr. Kahn

"We know patients have a lot of influence on physicians. What would happen if patients started showing up in practices with well-documented standardized medication lists? Could we use that

as a lever also to drive physician adoption of this technology, because I think they care more than anything about what their patients want." – Dr. Kibbe

"Ten percent of all patients who get prescriptions have bad reactions. I can't think of any other industry where there is a documented 10 percent problem and [they] do not do something dramatic about it." – Dr. Barrett

"E-prescribing is very useful and contributes greatly to patient safety, but in the context of a full electronic health record, we need to make sure that whatever incentive we put in for e-prescribing doesn't actually create a barrier to then migrating over to use of electronic health records." – Dr. Kolodner

Draft Charge and Workgroup Formation Discussion
Dr. Brailer suggested the following draft broad charge on which the Community might agree to form a work group:

- Develop the professional, economic, operational, technical, and environment that will foster urgent, high value e-prescribing adoption.

Dr. Brailer noted that the Community also has to option to have a substantial part of a future AHIC meeting in the near term focused on having a wide range of discussions and presentations on this topic aimed at trying to come to some group consensus without forming a work group.

"If there is a charge to the group, I would like to see a comprehensive list of every lever and what the pros and cons of each lever might be so that we have a full disclosure of the options and what their implications are. I think we need to address this and do whatever it takes to get this done. It is the foundation for every single one of the other programs that we are talking about." – Dr. Gerberding

"We have a ripe opportunity to focus on the issue of medical errors and patient safety and…to look at the 30 percent that are writing 83 percent of the prescriptions. And [the opportunity to] do some surveying and research work to document the level of medical error and the safety issues that occur within that population, and based on additional survey and study work nationally concerned with patient safety and medical errors, then come back to this group and report those findings. Perhaps based on that, [we could] try moving forward with a working group that will mount a campaign directed at consumer safety." – Ms. Davenport-Ennis

Dr. Brailer concluded this discussion by noting that a workgroup would not yet be formed, and that the AHIC contractor, Health Systems Research, Inc., will continue working on this topic.

Briefing on Quality Monitoring

Carolyn Clancy, MD, Director of AHRQ, and Margaret O'Kane, MHS, Director of the National Committee for Quality Assurance (NCQA), briefed the Community on quality monitoring. Dr. Clancy noted that over the past 10-15 years, there have been increasing demands from purchasers that providers demonstrate the quality of care that they deliver. There is clear evidence that public reporting of performance leads to improvements. Recent efforts to harmonize work in the area of quality monitoring are promising, particularly in terms of reducing the burden on providers and increasing the focus on improving care. Physicians are now actively engaged in

quality monitoring. There is a substantial and unrealized opportunity to provide useful information to consumers.

Challenges Facing Quality Monitoring
Imperfect data and multiple sources of measures complicate quality monitoring. Measures development is a dynamic, evolutionary process, however, and substantial improvements are being made. There is limited collaboration between quality assessment and health information technologies; however, there has been increasing recognition by all stakeholders of the urgent need for alignment of disparate monitoring initiatives. In addition, National Quality Forum endorsement is now seen as a vital prerequisite.

State of Quality Monitoring
The state of quality reporting is robust, although measures in some key areas are lacking. Many issues surround accountability for care (e.g., many quality issues "fall through the cracks'). Pay-for-performance is creating a "positive tension" for improvement and accountability for care. The needs of patients with multiple conditions and providers is fueling the need for more patient-centered care. The NCQA serves as a model for quality monitoring in its capacity to accredit managed care organizations, including Medicare and Medicaid. Many have noted the need for the development and greater use of measures on disparities in care.

There are many interesting collaborations in the private sector focused on quality monitoring, including: (1) a quality coalition between NCQA, GE, Verizon, and a number of other corporations; (2) the Diabetes and Cardiac Care Link Program, which rewards top-performing physicians; and (3) the Physician Office Link Program, which rewards physicians for investing in IT and creating chronic care improvement programs.

Key Stakeholders
Dr. Clancy described key stakeholders and the benefits that they accrue from advances in this area. For example, CMS would benefit because an alignment of quality efforts would result in improved quality and value for taxpayers. It also would promote patient-centered care, improvements in care for people younger than 65 can yield substantial benefits for Medicare, and it would help to assure that covered services are consistent with current science. From the standpoint of private payers, the success of private-sector initiatives is limited by market share; common measures and standards reduce administrative burden. Robust, timely information on quality can inform contracting decisions, and consumer-directed approaches require information on quality and value.

For providers, coordinated efforts in measurement and monitoring should serve multiple purposes, (e.g., continuing education credits, maintenance of certification). From the standpoint of larger providers or systems, some predictability in requirements allows for investments in infrastructure and systems. It ultimately allows providers to shift from asking "which report today?" to care improvement. With regard to consumers, transparency can enhance choice of hospital, plan, physician, and treatment. Personal health records can serve as a vehicle for customizing information based on individual preferences and health care needs. Finally, advances in quality monitoring will lead to a more active role in personal care on the part of consumers.

Barriers To Advancing Quality Monitoring
The following major barriers to advancing quality monitoring were described: (1) the lack of harmony between existing standards, formats, and requirements for quality monitoring and reporting; (2) inconsistent and uneven demand by purchasers for information; (3) shift of covered

lives from accountable to less tightly organized arrangements; (4) infrastructure for collecting and reporting quality measures is fragmented; and (5) functionality of easy export of quality data to accreditors, public health entities, and others is not clearly defined.

Implementation and Acceleration Opportunities
Dr. Clancy also discussed the following potential implementation and acceleration opportunities in this area:

- **Interoperability will expand the capacity to measure important aspects of care, including critical quality improvement and care management tasks.**

- **There is emerging national consensus for a set of quality measures to be used by all payers and all providers.**

- **Electronic health records should be able to move us towards population health and management.** In particular, electronic health records should help to identify all patients taking a particular medication as well as patients in need of screenings.

- **AHRQ, CMS, VHA, DoD should work with NCVHS to develop a minimum dataset of appropriately formatted data elements and fields needed to produce a set of agreed-upon quality measures.** A minimum dataset will be tested with AQA pilots.

Discussion:

Discussion in this area focused largely on data collection, patient issues, and the formation of a workgroup with a broad and specific charge.

The following are highlights of discussions in these and other areas.

Data Collection
"I would at the end of the day recommend a workgroup on this topic. The burden of data collection has just gotten nuts. I don't know if the nonmilitary members of the community appreciate what is happening at the data collection level, there are so many sources, government data collection is getting to the point where that constituency is getting numb and not knowing what is important to collect." – Ms. Gelinas

"I'd like to make a plea that we commit to collecting data once and using it many times. If one takes a dataset that is patient-centric and it includes the data we have been talking about with respect to personal health records, medications, immunizations, demographic information, allergies, and so forth, that data set can be used for many purposes, including quality reporting. It can be done easily and inexpensively, and used to create a platform for this purpose that will work whether it is a hospital setting or an ambulatory setting." – Dr. Kibbe

Patient Issues
"The person who has the biggest stake in the quality of care is the patient. And I just wonder if we've ever thought about patient-based quality measures, how is the care integrated in the context of a person, and how can we empower the patient to be the accountable party in the sense of knowing enough and understanding enough about how their personal care compares to what

would be expected for that person so that they can make better choices and get engaged." – Dr. Gerberding

"Remember the people in nursing homes, the developmentally disabled, and the mentally ill where we don't really have an emerging consensus on what quality care is. As frustrating as it is to have a discussion on what effective care is for clinical medical care, [for] the [groups I referenced] we are nowhere near that in this country." – Mr. Roob

"We need a constituency for the public that is powerful and that really pushes this agenda. When I go up on the Hill, I [hear] repeatedly that there is no voice for the public interest here, and I honestly think that is part of the problem." – Ms. O'Kane

Other Discussion Highlights

"There is an orphan issue…I don't think we thought enough about [the] framework for accountability…even if we were in a dream world where we had interoperability and the data was able to flow across boundaries and providers, we don't really have a way of thinking about who is clinically accountable for looking at the data to make sure that the right things are happening…I think we are at the point of thinking about individual physician accountability and how to make sure that burden is not too great, but I think we need to be thinking beyond that to where really the costs and the opportunities for quality improvement are greater." – Ms. O'Kane

"Electronic health records are often not user friendly, and I think part of the hesitation of physicians is that they are afraid that they are going to buy the wrong product or that the product that they buy will not be user friendly to their workflow…I don't know that there is anything that the AHIC can really do to show which products are user friendly…Whatever you can do to stimulate good products that are out there, that are user friendly, would be a tremendous contribution." – Ms. O'Kane

"It seems to me that if we are going to develop quality measures, and we may have a working group to do that, we may want to consider developing quality measures for different standards and circumstances of care, i.e., specialty care, chronic care, wellness care, emergent care, end-of-life care…then we have a full spectrum of quality measures that will serve a patient well no matter where they are in the cycle of life or wellness. At the end of the day, I think those quality measures developed in that manner may also afford an opportunity for better management of resources, of time, energy, medical care." – Ms. Davenport-Ennis

Workgroup Formation and Charges to the Workgroup

A workgroup will be formed to address the broad charge developed during this discussion session. The broad charge for this workgroup is as follows:

- Streamlined automated reporting on standardized quality measures from electronic medical records.

The specific charge for this work group is to be determined.

"Our standards and certifications contractors are required to take up three so-called use cases, which are our breakthroughs, and it looks like we are moving toward surveillance, consumer empowerment, and quality measurement and reporting to develop the standard components that are necessary for those in the scope of the work that we asked them to do. Of the other two topics, e-prescribing already has a statutory process underway…and in the chronic disease management area…we are continuing to discuss because it is the most intrinsic with respect to

health care itself and therefore the most difficult to tease out and find something that is specific to that narrow area." – Dr. Brailer

Public Input Session

Speaker Number 1 – Nancy Davenport-Ennis, founder of both the National Patient Advocate Foundation and the Patient Advocate Foundation, and AHIC member. She explained that on behalf of the consumer and patient organizations that have been working in working groups, each member of the AHIC community has been provided with a packet of information that will be made publicly available. In the packet, the 70 national organizations working with AHIC and in the process of creating living documents are identified.

Also included in the packet is a matrix that has taken eight of the breakthrough areas discussed by AHIC and divided them into areas of openness and individual participation and control, purpose specification and minimization, collection limitation, data integrity and control and security safeguards, and accountability and oversight. This matrix is an "at-a-glance" for easy review, and represents a fundamental, universal view of a very diverse community of the nation's largest consumer and patient groups.

The matrix is additionally supported by narratives that were provided by different organizations in the working group. The packet also includes a letter sent to Secretary Leavitt that characterizes how the working group has worked together and how it has moved its process to a point of delivery.

Speaker Number 2 – Katheryn Serkes, American Association of Physicians and Surgeons, a national association of physicians in all practices in existence since 1943. Ms. Serkes noted that she represents the 30 percent of physicians in solo and small private practices. She discussed a number of concerns that have been raised as to why there is reluctance to adopt both quality measures and e-prescribing on the part of physicians. She also informed the Community that "whether you agree or disagree with the perceptions that I'm telling you about, it is what I hear from physicians and patients, and these are the concerns and barriers that are standing in the way."

- Privacy issues are tops on the minds of physicians. "Because of the way that we are dealing with HIPPA, which removes consent, we have also removed patients from the consent process in any of these issues where we have a privacy concern."

- A lot of physicians now are working in cash-based and self-pay practices. They are specifically in practices in which they are limiting or have reduced their staff to 10 or fewer so that they do not have to perform electronic filing under Medicare, so that they can remain HIPPA exempt. "They don't want to add the electronic prescribing into their mix because then that will bring HIPPA regulations down on them that they have been remaining outside of."

- There are concerns that the U.S. Drug Enforcement Agency would like to do different things with the information on prescribing than perhaps some of those who are interested in payment or quality. "This is a very real scare, this is not paranoia at this point, as physicians are being prosecuted, particularly for pain management."

- E-prescribing makes sense for third-party payers, because that is where the cost savings are realized. But the power of the pen resides with the physicians and the prescription pad until they are over these hurdles, there will be these barriers. The potential solutions for implementing e-prescribing, electronic health records, and quality control "are the very things that also put fear into physicians because it means more regulation and more government involvement…I have survey after survey to show that it is not about the money, it is about government meddling and interference in the practice of medicine that is creating the resistance.

- Physicians see the quality control issue as a payment issue. "If you are not being paid for defensive medicine, then you are opening yourself up to more litigation, and also everything is on the books for the lawyers to come in and use against the physician…Physicians are already overburdened with data collection, counterproductive data collection that takes them away from patient care, and we are adding to it.

- Physicians are concerned about unfair or uneven comparisons (for example, comparing outcomes from a physician specialty hospital that specialized in cardiac care with other hospitals). "How do you convey that and how do you do that in a user-friendly way? Physicians are concerned that these are unfair comparisons."

- There also are physician-related concerns about accountability. "How can you hold a physician accountable…when the patient goes home, does not fill the prescription, does not take the prescription? You cannot hold their hand and be with them to do the followup."

Ms. Serkes summarized her comments by explaining that "We agree on many things…and as you are considering these, whether you agree or disagree, think these are frivolous concerns or ones that can be relieved by the development of technology, these indeed are the concerns and the barriers that are plaguing you in any implementation in this target [group of physicians]." She also noted that a physician group was not represented at the table.

Dr. Brailer's response.
Dr. Brailer clarified and noted for the record that a representative from the American Academy of Family Physicians was at the meeting and seated at the table.

Speaker Number 3 – Alan Mertz, President of the American Clinical Laboratory Association (ACLA). Mr. Mertz commented that laboratories are at the center of advancing the electronic health network. Laboratory data represent 60 percent of the medical record, and "while we are a very small part of all health care spending, about 4 or 5 percent, laboratory data plays a role in 70 percent of medical decisions." Virtually every health care community is trying to develop electronic health information infrastructure and are looking to laboratories first. A recent nationwide survey by the E-Health Initiative found that of those who have electronic health information exchange efforts underway, 60 percent will work to exchange laboratory information within 6 months to support quality, safety, and efficiency goals. According to another survey by the American Hospital Association, the number one information technology function of the majority of hospitals today is electronic order entry and review of results for diagnostic services.

Laboratory data is an essential building block of assessing quality care and will have a critical role in pay-for-quality initiatives. Laboratories can not only be used to measure providers' performance, but can be evaluated on their own performance as a critical component of health

care delivery. "The labs have made an enormous investment in information technology. There are incurred costs that have to be recognized and reimbursed."

Clinicians place a high value on the ability to order laboratory services and receive laboratory results electronically. This capability has improved legibility, decreased error rates, produced more timely results, and gives the potential to more easily monitor for redundant or duplicate orders. All these benefits result in improved clinical outcomes and improved clinical care efficiency with reduced costs. "The ACLA is committed to integrating its existing proprietary networks into the proposed interoperable health information network. We are working with the various federal, state, and nonprofit agencies on the issues of health IT and are involved in a project to adopt common communication standards for the exchange of laboratory information electronically."

Mr. Mertz concluded his remarks by stating that "Given the significance of laboratory data, we are one of the more sought-after pieces of the electronic health care record, and we are one of the biggest parts of the record. We believe that long ago we should have had a seat at this table. That didn't happen; however, we believe in the future and would like to be more fully represented. The ACLA and the entire lab community has offered to contribute to and participate in this process…Given the importance of this, as we move forward, we hope that you would call on us and a work group be assigned to this incredibly important part of the medical record."

Speaker Number 4 – Dr. Alan Zuckerman, a general pediatrician representing the American Academy of Pediatrics, noted that interoperability is the key to the breakthroughs identified by the Community. He noted that less than 2 weeks ago, CCHIT dropped the electronic transmission of prescriptions from the initial round of certification standards. "It will get there in 6-12 months as will the rest of the pieces of e-prescribing, but I think your encouragement to make electronic transmission of prescriptions part of certification of EHR will be very much appreciated and will help to increase other forms of interoperability within certification."

In terms of the personal health record, "we do have an ANSII approved standard called the CCR that has been harmonized with standards from HL-7 and e-prescribing that can help to form the framework and keep us with one standard for all patients and all types of activities. I would prefer that you started with immunizations and well child care then medications, but you've laid a foundation and will go forward."

In more extensive remarks distributed to the Community, Dr. Zuckerman explained how each of the breakthroughs, as well as laboratory data can be addressed through the PHR. In his estimation, the Community made a wise decision to include registration data first, and encouraged inclusion of the record locator as part of an initial transaction that will set the pace for everything.

Dr. Zuckerman explained that patients could identify themselves at a doctor's office "the same way we do at an airport terminals, put in their pin with a card and that initial transaction of sending their registration data should be compensated by that provider, giving the patient the contact information to get more data in the future and entering a log as a procedural visit that took place. Interoperability is about sharing of information, and this is a perfect opportunity."

He added that "We do have an ideal opportunity to put children first within the personal health record because they are a vulnerable population and the dataset they need is relatively limited." There is a receptive market both in hospital maternity services and in the way parents are willing to spend money on their children. "We have an opportunity to do what 3 decades ago the

Scandinavians started doing and start a lifetime personal health record at birth. We should consider the newborn discharge opportunity as an important place to start personal health records. We also should be learning from other industries and not replicating paper systems.

Dr. Zuckerman commented that "Missing at the table today is Department of Justice and DEA. I strongly encourage you to bring them into this dialog so that we can have a good provider authentication system." He concluded his remarks with the following statement: "In the area of e-prescribing, I ask that you remember that adverse reactions and allergies must be part of that medication history and to try to see if we can begin to bring the DEA to the table with us. In the area of personal health records, I hope that you will consider children as a population that is ready to engage in the market."

Speaker Number 5 – Chantal Worzala, American Hospital Association,

While all of the breakthrough projects discussed by the Community are interesting and needed, don't want to lose sight of the broader goal of ensuring widespread adoption of electronic health records and interoperability. "There is a lot of infrastructure work to be done there, I don't think we yet have real identification of the timeline for getting to our goal and the building blocks for getting there…I hope that broader work will continue as you look at these specific breakthrough items.

On the registration and medication record topic, it is very important that the Community Address head on the patient authentication issue, it is one of the framework infrastructure items that needs to be addressed, we need one way for all providers to be able to match patients to their records.

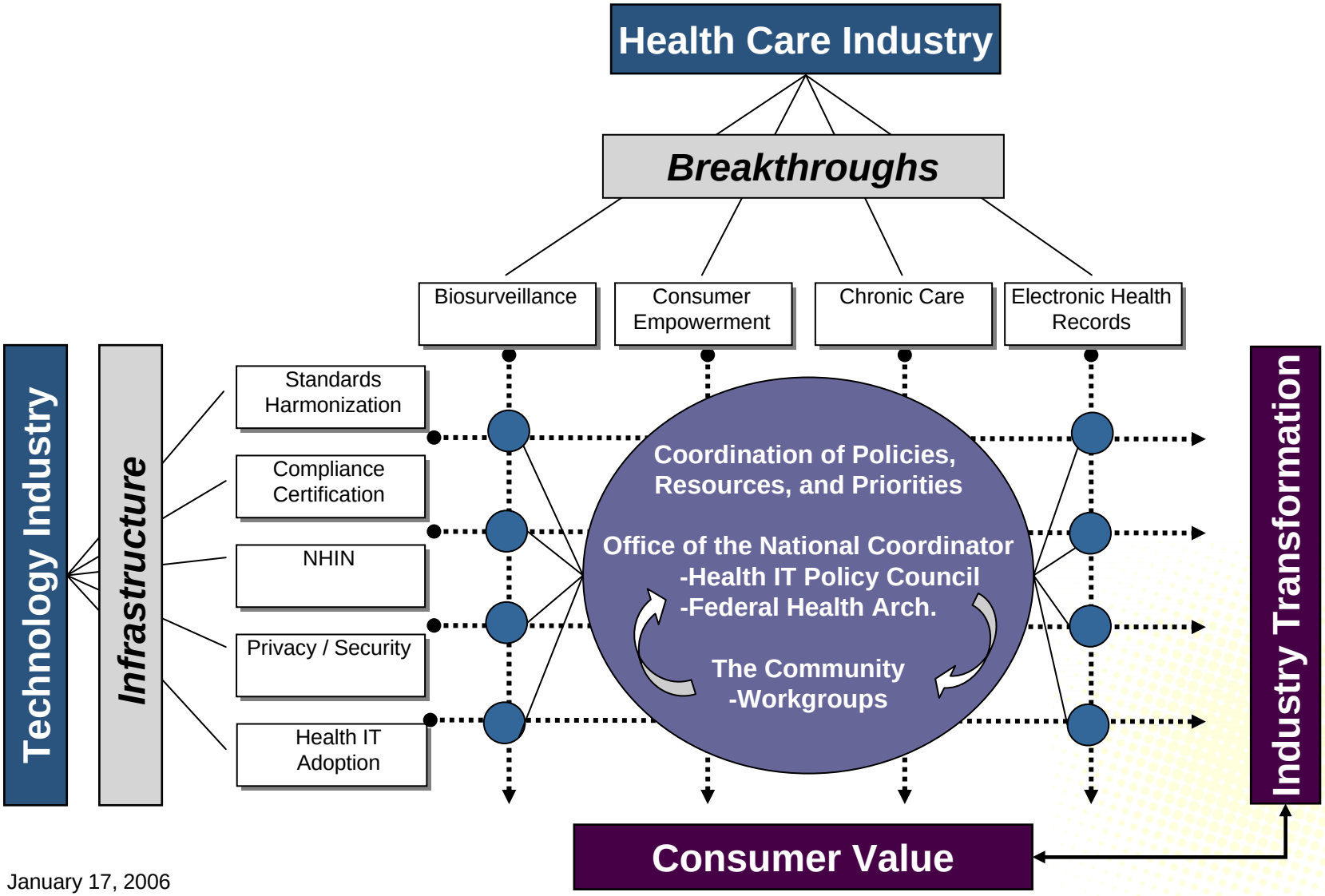
I would encourage you as you move forward and look at the quality and measurement and development of a minimum dataset that you continue the public-private sector collaboration, which is very successful.

Echo previous comments that the Stark regulations released last month will not be broad enough as currently written to give hospitals the room they need to help physicians.

Closing Remarks

Secretary Leavitt thanked all members of the Community and those who provided public comments. He noted that a list of future AHIC meeting dates was being circulated to members, and adjourned the meeting.

Health Information Technology Deployment Coordination



American Health Information Community
Biosurveillance Workgroup
Implementation Plan

Office of the National Coordinator for Health Information Technology

January 17, 2006

Background:
The threat of significant natural or man-made health events is a critical issue for the nation. The ability to detect events rapidly, manage the events and appropriately mobilize resources in response can save lives. Information from hospitals, other providers, and ancillary facilities can be electronically reported and monitored without identifying patients, and serve to provide a near real-time view of the health of our communities. These data can be shared with and among local, state, and federal public authorities to support shared and unique needs at all levels of government.

Substantial work is underway in Biosurveillance systems at the state and local level through the Public Health Information Network and systems like NCHESS in North Carolina, New York City's syndromic surveillance efforts, though BioSense at the Centers for Disease Control and Prevention and, for linking to agriculture, environmental and other networks, through the NBIS project at the Department of Homeland Security. The State Department and other agencies have been supporting the advancement of Biosurveillance nationally and internationally as well. The work of the Community will accelerate and build upon these efforts already underway and particularly focus on the benefits for using clinical care data to support biosurveillance needs.

At its November 29, 2005, meeting, the American Health Information Community (the Community) recommended the formation of a Workgroup on biosurveillance. The meetings of this Workgroup will be public and all documents discussed will be made available to the public. The Community further recommended that this Workgroup develop a plan to realize a specific charge (transmitting certain data from health care providers to public health systems) within one year, which is visible to the American public and works towards a broader charge (implementing a public health monitoring/response system) over time. This document presents the National Coordinator for Health Information Technology's plan for implementing these recommendations.

Charges will help the Community make recommendations based up the most complete information.

Broad Charge for the Workgroup:
Make recommendations to the Community to implement the informational tools and business operation to support real-time nationwide public health event monitoring and rapid response management across public health and care delivery communities and other authorized government agencies.

Specific Charge for the Workgroup:
Make recommendations to the Community so that within one year, essential ambulatory care and emergency department visit, utilization, and lab result data from electronically enabled health care delivery and public health systems can be transmitted in standardized and anonymized format to authorized public health agencies within 24 hours.

Workgroup Members:
Forthcoming

Support:
The Office of the National Coordinator and other agencies will approach this workgroup in the following three ways:

1. The Office of the National Coordinator, Office of Health Information Technology Adoption, will provide analytic support.
2. The Health Information Technology Standards Panel and the Certification Commission for Health Information Technology, both contractors to the Office of the National Coordinator, will designate a Workgroup liaison as required by their contracts.
3. A Federal Health IT Policy Council, composed only of Federal employees, will be formed to consider Federal policy issues that are raised across all Breakthroughs as recommended by the Community. We define a Breakthrough as the use of health information technology that produces a tangible and specific value to the health care consumer and that can be realized within a 2-3 year period. The Council will help identify whether and how the Federal government can address Community recommendations. There will be liaisons from the Council to interact with the Workgroup who can also identify issues that the Council should consider.

Quarterly Milestones:
Because of the urgency of this goal and the short timeframe for implementation, the Office of the National Coordinator will manage accountability on a quarterly basis. The following quarterly milestones represent the key metrics for this Workgroup in making recommendations to the American Health Information Community.

First Quarter 2006:

1) Identify existing tools and solutions that could be rapidly deployed and present recommendations to the Community.
2) Identify local, state, federal agencies, NGOs, and private entities that are needed to support the tools and solutions.
3) Present a detailed timeline for realization of the specific charge to the Community.

Second Quarter 2006:

1) Identify public and business policies that need to be changed or that are needed to meet the specific charge, and make recommendations to the Community.
2) Consider privacy issues that may arise from this effort, and report discussions to the Community.
3) Review standards architecture and certification criteria relevant to the realization to the goal and make recommendations to the Community.

Third Quarter 2006:

1) Make recommendations to the Community to identify deployment targets and models for deployment.
2) Make recommendations to the Community to develop an education and awareness plan.
3) Make recommendations to the Community to develop a timetable to transition from the specific charge to the broad charge.

Fourth Quarter 2006:

1) Make recommendations to the Community to implement a pilot effort and a rollout plan that will realize the specific charge.
2) Evaluate the year and progress toward achieving the broad charge.

Department of Health & Human Services
Office of the National Coordinator for Health Information Technology

American Health Information Community
Consumer Empowerment Workgroup
Implementation Plan

Office of the National Coordinator for Health Information Technology

January 17, 2006

Background:
Consumer empowerment requires the active involvement of consumers in managing their health care. Active involvement, in turn, requires consumers to have access to their health information in an easily accessible format. This includes having a personal health record to track family history, medications, and other special conditions affecting a consumer.

As part of a personal health record, a medication history provides the consumer with a list of their medications in an easily accessible format. Most individuals do not know the specific medications and exact dosages that have been prescribed to them and often do not know allergies they have. In addition, clinicians do not always have consistent prescription information about the same individual. Too often, this results in errors or unnecessary treatments. A medication history would have the current data in one location, available to the individual and to each authorized healthcare provider. If a provider were to reference such a complete electronic medication list prior to prescribing new medications, drug-to-drug interactions with subsequent prescriptions could be avoided.

A core part of a personal health record is registration information. Filling out multiple forms is a common part of health care for consumers. These forms collect information such as name, address, insurance, medications, allergies, etc. A single electronic health registration will make it easier for individuals to give their information and for clinicians to use it. Additionally, the consumer could update the information once and share it with all providers immediately as needed.

At its November 29, 2005, meeting, the American Health Information Community (the Community) recommended the formation of a Workgroup on consumer empowerment. . The meetings of this workgroup will be public and all documents discussed will be made available to the public. The Community further recommended that this Workgroup develop a plan to realize a specific charge (deployment of pre-populated electronic registrations and medication histories) within one year that is visible to the American public and that works towards a broader charge (widespread adoption of personal health records) over time. This document presents the National Coordinator for Health Information Technology's plan for implementing these recommendations.

Charges will help the Community make recommendations based on the most complete information.

Broad Charge for the Workgroup:
Make recommendations to the Community to gain wide spread adoption of a personal health record that is easy-to-use, portable, longitudinal, affordable, and consumer-centered.

Specific Charge for the Workgroup:
Make recommendations to the Community so that within one year, a pre-populated, consumer-directed and secure electronic registration summary is available to targeted populations. Make additional recommendations to the Community so that within one year, a widely available pre-populated medication history linked to the registration summary is deployed.

Workgroup Members:
Forthcoming

Support:
The Office of the National Coordinator and other agencies will approach this workgroup in the following three ways:

1. The Office of the National Coordinator, Office of Health Information Technology Adoption, will provide analytic support.
2. The Health Information Technology Standards Panel and the Certification Commission for Health Information Technology, both contractors to the Office of the National Coordinator, will designate a Workgroup liaison as required by their contracts.
3. A Federal Health IT Policy Council, composed only of Federal employees, will be formed to consider Federal policy issues that are raised across all Breakthroughs as recommended by the Community. We define a Breakthrough as the use of health information technology that produces a tangible and specific value to the health care consumer and that can be realized within a 2-3 year period. The Council will help identify whether and how the Federal government can address Community recommendations. There will be liaisons from the Council to interact with the Workgroup who can also identify issues that the Council should consider.

Quarterly Milestones:
Because of the urgency of this goal and the short timeframe for implementation, the Office of the National Coordinator will manage accountability on a quarterly basis. The following quarterly milestones represent the key metrics for this Workgroup in making recommendations to the American Health Information Community.

First Quarter 2006:

1) Identify existing tools and solutions that could be rapidly deployed and present recommendations to the Community.
2) Identify local, state, federal agencies, NGOs, and private entities that are needed to support the tools and solutions.
3) Present a detailed timeline for realization of the specific charge to the Community.

Second Quarter 2006:

1) Identify public and business policies that need to be changed or that are needed to meet the specific charge, and make recommendations to the Community.
2) Consider privacy issues that may arise from this effort, and report findings to the Community.
3) Review standards architecture and certification criteria relevant to the realization to the goal and make recommendations to the Community.

Third Quarter 2006:

1) Make recommendations to the Community to identify deployment targets and models for deployment.
2) Make recommendations to the Community to develop an education and awareness plan.
3) Make recommendations to the Community to develop a timetable to transition from the specific charge to the broad charge.

Fourth Quarter 2006:

1) Make recommendations to the Community to implement a pilot effort and a rollout plan that will realize the specific charge.
2) Evaluate the year and progress toward achieving the broad charge.

Department of Health & Human Services
Office of the National Coordinator for Health Information Technology

American Health Information Community
Chronic Care Workgroup
Implementation Plan

Office of the National Coordinator for Health Information Technology

January 17, 2006

Background:
Whether a person has diabetes, asthma, or obesity, automated tools that support the collection and transmission of health status information can help reduce the morbidity and consequences of chronic disease. Information tools can help collect and report symptoms or side effects, as well as assist in improving treatment and compliance. Additionally, information tools can allow a physician to monitor progress and make suggestions or adjustments to treatments with little effort.

The American Health Information Community (the Community) has recommended that chronic care management be an important priority for its attention. Therefore, a Workgroup will be formed to facilitate chronic care monitoring and improved chronic care delivery. The meetings of this Workgroup will be public and all documents discussed will be made available to the public. This Workgroup will develop a plan to realize a specific charge (widespread use of secure messaging) within one year, which is visible to the American public and works towards a broader charge (remote monitoring) over time. This document presents the National Coordinator for Health Information Technology's plan for implementing this effort.

Charges will help the Community make recommendations based on the most complete information.

Broad Charge for the Workgroup:
Make recommendations to the Community to deploy widely available, secure technologies solutions for remote monitoring and assessment of patients and for communication between clinicians about patients.

Specific Charge for the Workgroup:
Make recommendations to the Community so that within one year, widespread use of secure messaging, as appropriate, is fostered as a means of communication between clinicians and patients about care delivery.

Workgroup Members:
Forthcoming

Support:
The Office of the National Coordinator and other agencies will approach this workgroup in the following three ways:

1. The Office of the National Coordinator, Office of Health Information Technology Adoption, will provide analytic support.
2. The Health Information Technology Standards Panel and the Certification Commission for Health Information Technology, both contractors to the Office of the National Coordinator, will designate a Workgroup liaison as required by their contracts.
3. A Federal Health IT Policy Council, composed only of Federal employees, will be formed to consider Federal policy issues that are raised across all Breakthroughs as recommended by the Community. We define a Breakthrough as the use of health information technology that produces a tangible and specific value to the health care consumer and that can be realized within a 2-3 year period. The Council will help identify whether and how the Federal government can address Community recommendations. There will be liaisons from the Council to interact with the Workgroup who can also identify issues that the Council should consider.

Quarterly Milestones:
Because of the urgency of this goal and the short timeframe for implementation, the Office of the National Coordinator will manage accountability on a quarterly basis. The following quarterly milestones represent the key metrics for this Workgroup in making recommendations to the American Health Information Community.

First Quarter 2006:
1) Identify existing tools and solutions that could be rapidly deployed and present recommendations to the Community.
2) Identify local, state, federal agencies, NGOs, and private entities that are needed to support the tools and solutions.
3) Present a detailed timeline for realization of the specific charge to the Community.

Second Quarter 2006:
1) Identify public and business policies that need to be changed or that are needed to meet the specific charge, and make recommendations to the Community.
2) Consider privacy issues that may arise from this effort, and report findings to the Community.
3) Review standards architecture and certification criteria relevant to the realization to the goal and make recommendations to the Community.

Third Quarter 2006:
1) Make recommendations to the Community to identify deployment targets and models for deployment.
2) Make recommendations to the Community to develop an education and awareness plan.
3) Make recommendations to the Community to develop a timetable to transition from the specific charge to the broad charge.

Fourth Quarter 2006:
1) Make recommendations to the Community to implement a pilot effort and a rollout plan that will realize the specific charge.
2) Evaluate the year and progress toward achieving the broad charge.

American Health Information Community
Electronic Health Record Workgroup
Implementation Plan

Office of the National Coordinator for Health Information Technology

January 17, 2006

Background:
Widespread adoption of Electronic Health Records (EHRs) requires reducing the loss and risk physicians face when investing in these technologies. Ensuring that EHRs comply with minimal standards for functionality, security and interoperability can reduce this risk. Also, risk and cost can be reduced by services that offer implementation support to physicians so they can re-engineer their business processes as part of their EHR implementation.

The American Health Information Community (the Community) has recommended that EHR adoption be its top priority. Therefore, a Workgroup will be formed to analyze barriers to EHR adoption. The meetings of this Workgroup will be public and all documents discussed will be made available to the public. This Workgroup will develop a plan to realize a specific charge (deploying a standardized means of accessing/deploying lab results/interpretations) within one year, which is visible to the American public and works towards a broader charge (ensuring widespread adoption of certified EHRs) over time. This document presents the National Coordinator for Health Information Technology's plan for implementing this effort.

Charges will help the Community make recommendations based on the most complete information.

Broad Charge for the Workgroup:
Make recommendations to the Community on ways to achieve widespread adoption of certified EHRs, minimizing gaps in adoption among providers.

Specific Charge for the Workgroup:
Make recommendations to the Community so that within one year, standardized, widely available and secure solutions for accessing current and historical laboratory results and interpretations is deployed for clinical care by authorized parties.

Workgroup Members:
Forthcoming

Support:
The Office of the National Coordinator and other agencies will approach this workgroup in the following three ways:

1. The Office of the National Coordinator, Office of Health Information Technology Adoption, will provide analytic support.

2. The Health Information Technology Standards Panel and the Certification Commission for Health Information Technology, both contractors to the Office of the National Coordinator, will designate a Workgroup liaison as required by their contracts.
3. A Federal Health IT Policy Council, composed only of Federal employees, will be formed to consider Federal policy issues that are raised across all Breakthroughs as recommended by the Community. We define a Breakthrough as the use of health information technology that produces a tangible and specific value to the health care consumer and that can be realized within a 2-3 year period. The Council will help identify whether and how the Federal government can address Community recommendations. There will be liaisons from the Council to interact with the Workgroup who can also identify issues that the Council should consider.

Quarterly Milestones:
Because of the urgency of this goal and the short timeframe for implementation, the Office of the National Coordinator will manage accountability on a quarterly basis. The following quarterly milestones represent the key metrics for this Workgroup in making recommendations to the American Health Information Community.

First Quarter 2006:
1) Identify existing tools and solutions that could be rapidly deployed and present recommendations to the Community.
2) Identify local, state, federal agencies, NGOs, and private entities that are needed to support the tools and solutions.
3) Present a detailed timeline for realization of the specific charge to the Community.

Second Quarter 2006:
1) Identify public and business policies that need to be changed or that are needed to meet the specific charge, and make recommendations to the Community.
2) Consider privacy issues that may arise from this effort, and report findings to the Community.
3) Review standards architecture and certification criteria relevant to the realization of the goal and make recommendations to the Community.

Third Quarter 2006:
1) Make recommendations to the Community deployment targets and models for deployment.
2) Make recommendations to the Community on the scope, content and deployment of an education and awareness plan.
3) Make recommendations to the Community to develop a timetable to transition from the specific charge to the broad charge.

Fourth Quarter 2006:
1) Make recommendations to the Community to implement a pilot effort and a rollout plan that will realize the specific charge.
2) Evaluate the year and progress towards achieving the broad charge.

Office of the National Coordinator for Health Information Technology

January 17, 2006
American Health Information Community Meeting

Quality Monitoring Discussion

Presented by: Karen M. Bell, MD MMS

Office of the National Coordinator
for Health Information Technology

Importance

- Quality of Care issues heavily publicized
- Quality Management: requires commitment at all levels of an organization to follow the data management, prioritization principles, and action steps necessary to improve outcomes
- Quality Improvement: dependent on information, tools, and processes which can support safer, more effective care
- Quality Monitoring: tracking and reporting outcome measures of the Quality Management/Improvement program

Real-World Examples

- Maine Health Management Coalition --- integrated information on primary care practices' use of health information technology and care improvement processes as well as performance on standards HEDIS measures (www.mhmc.info)
- Bridges to Excellence --- Physician Office Link Program and Diabetes and Cardiac Care Link Programs (www.bridgestoexcellence.org)
- Multiple Quality Coalitions among payors, providers, and employers which support health information infrastructure, care process improvements, and improved outcomes of care for primary care
- Northern New England Cardiovascular Collaborative
- IHI Collaboratives: California HealthCare Foundation and others

What efforts are underway in the government sector?

- AHRQ/CMS -- Participation in Ambulatory Quality Alliance and pilots (primary care)
- CMS/Quality Improvement Organizations (primary care, hospital, nursing home, home health)
- HRSA/ Bureau of Primary Care
- VA -- Quality Improvement Program
- DoD -- Quality Improvement Program
- Indian Health Service

What efforts are underway in the private sector?

- Multiple HMO plans: Pay for Performance for primary care, some inclusion of PPO
- Co-ordination in AQA among payers, physicians, plans, and employers
- Integrated Delivery Systems: Intermountain Health, Kaiser Permanente, Partners Healthcare
- Leapfrog Group
- National Specialty Societies

What are the barriers?

- Lack of harmony among measures (variability in measurement methodology)
- Evidence-based measures limited to small subset of physician specialties
- Lack of patient-focused measures (patients with special needs or multiple co-morbidities)
- Inability to identify appropriate accountable clinician in FFS system with patients with multiple problems
- Infrastructure for collecting and reporting quality measures fragmented or not yet established

Key Accelerators in the Government and Private Sectors

- Widespread adoption of interoperable, certified electronic health records
- National consensus on set of evidence based quality measures applicable to all types of providers
- Standardized measurement methodologies
- Secure infrastructure for collecting, processing, and reporting quality metrics that is acceptable to the public

E-Prescribing Discussion

Presented by: Kelly Cronin and Jodi Daniel

Office of the National Coordinator
for Health Information Technology

Importance

- As CMS expands coverage of drugs e-prescribing is a critical tool to improve safety, quality and efficiency of medication use

- Widespread adoption of e-prescribing with clinical decision support could:
  - Eliminate 2.1 million ADE's/year (136,000 life-threatening)
  - Enable appropriate use of medications
  - Reduce overall drug expenditures by $29 billion

What Efforts are Underway in the Government Sector?

E-Prescribing Standards and Medicare Part D
Regulation of e-prescribing standards included in MMA to achieve interoperability and encourage adoption.

E-Prescribing Pilots – Five Programs Involving Seven States
Will test standards, evaluate work flow and determine impact on patient safety.

Prescription Bar Coding
Set standards and requirements for unique product identifier for prescription drugs and biologics.

Structured Product Labeling
Requires labeling content be submitted to FDA electronically and will speed the approval of labeling changes.

Stark and Anti-kickback Exceptions
-Proposed exception to Stark law and safe harbor to anti-kickback law to allow certain entities to donate e-prescribing and EHR technology to physicians.
-Broader exception/safe harbor proposed for certified EHRs.

Grant Funds
HHS is authorized to make grants to physicians for e-prescribing in 2007 to 2009.

What Efforts are Underway in the Private Sector?

- E-prescribing programs are underway in 20 states/regions
- Some plans and physician organizations are giving free e-prescribing software and services to physicians
  - Under current law, pre-paid health plans and medical societies can give free technology to physicians i.e., Nevada and California
- Over 50 organizations offered reward or incentive programs for quality in 2004 – many include incentives for e-prescribing (source: Leapfrog compendium)

What are the barriers?

- Health IT products lack uniform standards and functions for e-prescribing
  - 80,000 physicians have EHR software from over 20 vendors with capability to e-prescribe BUT still have versions that fax
- Clinical decision support needed to realize the full value of e-prescribing is insufficient in most software packages
- Negative business case for many physicians
  - Cost prohibitive and work flow challenges reduce productivity
- States have different requirements for prescribing that hamper electronic transmission of prescriptions or prescription related information

Potential Accelerators in the Government and Private Sectors

- Federal Government
  - Evaluate additional standards to fully enable e-prescribing and coordinate with CCHIT
  - Consider guidance regarding additional state preemption based on evidence of State laws that are barriers to e-prescribing
  - Continue to develop EHR adoption strategies through Community work group
- Health IT Industry
  - Adopt NCPDP SCRIPT and install versions of software in the existing install base/physician offices
  - Get EHRs certified to meet key interoperability and functionality requirements
- Physician Organizations
  - Communicate benefits of e-prescribing to members include the need for software upgrades that will enable true connectivity to pharmacies and PBMs
  - Access implementation support from DOQ-IT, HITNRC, PERC, and regional organizations
- Health Plans
  - Continue to offer incentives for improved quality through use of health IT
  - Ensure compliance with regulated standards for e-prescribing under Part D
- Pharmacies
  - Small and independent pharmacies without capability to receive an electronic prescription should work with vendors and wholesalers to enhance existing software capabilities

Privacy and Security Solutions for Interoperable Health Information Exchange

Presented by: Chuck Thompson

Office of the National Coordinator for Health Information Technology and the Agency for Healthcare Research and Quality

This briefing has been developed under the auspices of **RTI International** under a contract with the Agency for Healthcare Research and Quality and the Office of the National Coordinator for Health IT, HHS

Materials Developed in Consultation With:
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•Michael Samuel, PhD, RTI International
•John Thomasian, Director, Center for Best Practices, National Governors Association
•Jodi Daniel, J.D., M.P.H., Office of the National Coordinator for Health Information Technology, HHS
•Scott Young, MD, Agency for Healthcare Research and Quality, HHS

Environmental Scan

- The existing paradigm for security and privacy does not fully accommodate active consumer participation in health information exchange
- Consumers, organizations, and state and federal entities share concerns related to maintaining the privacy and security of health information
- Organizations within states have varying privacy and security business policies and practices that affect electronic clinical health information exchange

Environmental Scan (cont)

- In addition to HIPAA, many state-based health information privacy rules protect Americans
- Stakeholders, especially patients and consumers, at the state and community levels must be involved in developing solutions
- States are interested in supporting electronic health information exchange in order to improve public health and healthcare quality, but want to preserve essential privacy and security protections

Project Purposes

- Identify variations in organization-level business privacy and security policies and practices that affect electronic clinical health information exchange (HIE)
  - For those that are “best practices”, document and incorporate into proposed solutions
  - For those with a negative impact, identify source of the policy or practice and propose alternatives
- Preserve privacy and security protections as much as possible in a manner consistent with interoperable electronic health information exchange
- Incorporate state and community interests, and promote stakeholder identification of practical solutions and implementation strategies through an open and transparent consensus-building process
- Leave behind in states and communities a knowledge base about privacy and security issues in electronic health information exchange that endures to inform future HIE activities

Project Approach

- Overall contract managed by RTI International in partnership with NGA
- 18-month period; $11.5 million
- RTI will subcontract with up to 40 states to:
  - Identify within the state business practices that affect electronic health information exchange
  - Propose solutions and implementation plans
  - Collaborate on regional and national meetings to develop solutions with broader application
- Provide final report on overall project outcomes and recommendations

Health Information Security and Privacy Collaboration (HISPC)

- HISPC will be an organization that supports collaboration within and among states in order to foster participation of stakeholders
- RTI and the National Governors Association will support HISPC, which will have members from: state governments, the Federal government, and leaders from key non-governmental organizations
- The purpose will be to maximize knowledge exchange, and identify common solutions
- HISPC will seek consensus-based solutions and implementation plans through a public, community-based model

RTI International

- **Mission:**
  - To improve the human condition by turning knowledge into practice
- Provides objective, multidisciplinary research and policy analysis to a wide variety federal agencies in the fields of health, education, governance, environment and advanced technology
- Solves critical, social and scientific problems
- Relevant expertise – health economics, technology assessments, health communications, significant experience managing large, complex federal projects with multiple stakeholders

Project Outcomes

- Stakeholders, including state entities, will have a full understanding of variations in business privacy and security policies and practices in their states and communities
- States, through the use of stakeholder groups, will design practical solutions and implementation plans for preserving privacy and security protections while implementing electronic health information systems
- Through HISPC, long-lasting collaborative networks will be established for states and communities to support future work

Project Outcomes (cont)

- Stakeholders will have increased knowledge of best practices and how to implement them within their organizations and their state
- Project output will be available to optimize construction of the NHIN prototypes, and inform the architecture and standardization projects
- States will have access to state, regional and national best practices and solutions to optimize health information exchange

2006 Timeline and Milestones

- Jan 4 — Release RFP to Governors Offices
- Jan 11 — Bidder's Conference 1
- Feb 8 — Bidder's Conference 2
- Feb 25-28 — NGA Winter Meeting
- Mar 1 — Proposals Due
- Apr 28 — Subcontracts Signed
- Sept 30 — Interim Assessments of Variation
- Oct 30 — Interim Reports of Solutions
- Oct/Nov — State and Regional Workshops
- Nov 30 — Interim Implementation Plans

2007 Timeline And Milestones

- February National Meeting
- Mar 30 Final Assessment of Variation
- Mar 30 Final Analysis of Solutions
- Mar 30 Final Implementation Plans
- Mar 30 Final Nationwide Summary

Q & A

Nationwide Health Information Network

Presented by: Wes Rishel and John Loonsk

Office of the National Coordinator
for Health Information Technology

Current Landscape - Practices

- Most practices do not have EHRs
- Where EHRs exist:
  - Do not usually exchange data electronically with each other, with hospitals, with labs, or with pharmacies
  - Most EHR data must be input manually - impedes adoption by consumers and clinicians
- Primary transfer of clinical information: paper mail, phone and fax
  - Not infrequently all approaches have to be supported by the clinician
- Missed opportunities for positive impact of technology
  - Reducing errors, improving monitoring, advancing quality of care can not be fully realized
  - Clinicians lack the systems and the collaborative data

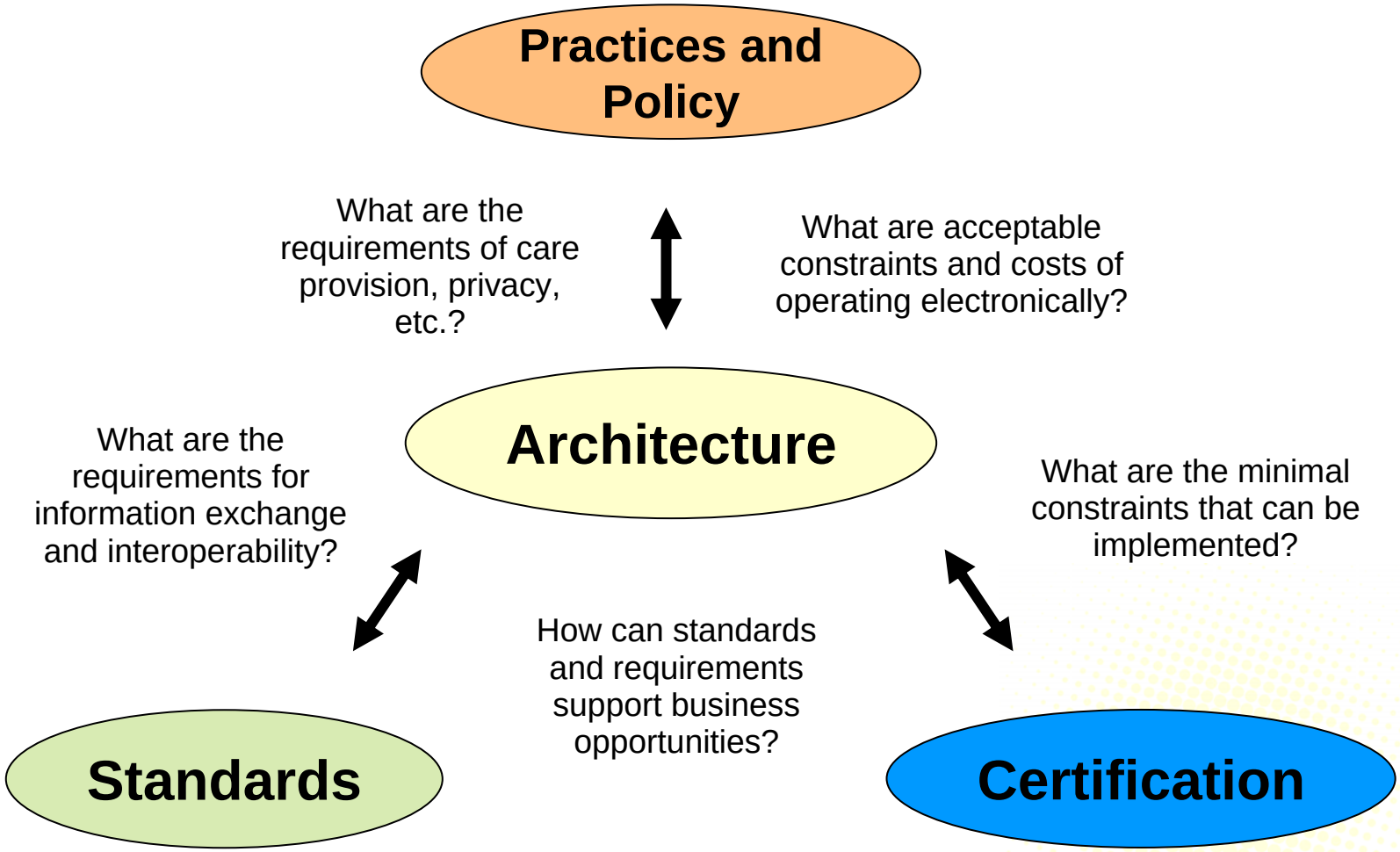
Current Landscape - Regional Networks

- Many efforts to improve regional cooperation
  - Most have not yet achieved significant data sharing
- Are a few successes built on trust and regional business goals
- Many must build their own regional network because there is no alternative
  - Unique regional solutions impede commercial market for technology and services
  - Non-regional health care stakeholders must develop individual approaches to work with each region
  - Limited ability to address interoperation between regional networks

Need for a Safe Market for Networking Investment

- Regional Risk Factors
  - Unique technology approaches bring the risk, cost and delay of being a pioneer
  - Each network becomes a self-developed or custom-developed project
  - Requirement for collaboration beyond the region can force change after initial development
- Creating a Stable Market Reduces Risk
  - Networking organizations select products based among competing offerings
  - Vendor experience in one region transfers to other clients
- Standards-based competition

"Architecture" is a Part of the Solution



Nationwide Health Information Network

- A widely available, easy to use, and inexpensive service to securely exchange health information
  - Information exchange and interoperability necessary to realize the President's vision for health care IT
  - Interconnect electronic health records
  - Transport electronic medical information to inform clinicians and follow the consumer
- Provide a platform for quality initiatives
- Integrate public health and bioterrorism monitoring with care

NHIN Sequencing

	NHIN Accomplishment
Phase I	• Potential architectures • Prototypes that demonstrate viability • Business model
Future	• Shared architecture with best elements • Operational implementations • Environment for sustainability

Nationwide Health Information Network – Phase I

- Phase I is currently underway
  - Four contracts awarded by HHS
  - Contribute to the development of an NHIN architecture
  - Develop working prototypes to establish the viability of proposed architectural approaches
- Consortia led by Accenture, CSC, IBM, and Northrop Grumman
  - Health information technology organizations
  - Three health care markets in each consortium
  - Provide perpetual licenses for government use of technology required to replicate
- Public convening of consortia and all other interested parties to ensure public input into NHIN structure

Accenture

- Accenture has more than 4,000 professionals serving providers, payers and pharmaceutical organizations across North America
- Accenture is developing electronic health records across the globe, including in the UK, Australia, Singapore, Spain, and France
- Accenture is a global management consulting, technology services and outsourcing company with 2005 revenues of $15.55 billion and more than 123,000 people in 48 countries
- The Health Care Markets
  - CareSpark
  - Eastern Kentucky Regional Health Information Organization
  - West Virginia eHealth Initiative
- Other Partners
  - Apelon, Cisco, CGI-AMS, Creative Computing Solutions, eTech Security Pro, Intellithought, Lucent Glow, Oakland Consulting Group, Oracle, and Quovadx

Computer Sciences Corporation

- CSC is working in partnership with the Connecting for Health Collaborative and building on the CFH prototype which
  - Is agnostic to platform, underlying hardware and software
  - Adheres to CFH Common Framework tenets for interoperability
- The Health Care Markets
  - Mendocino HRE
  - Indiana Health Information Exchange
  - MA-SHARE
- Other Partners
  - Browsersoft, Business Networks International, Center for Information Technology Leadership, Connecting for Health, DB Consulting Group, eHealth Initiative, Electronic Health Record Vendors Association, Microsoft, Regenstrief Institute, SiloSmashers, and Sun Microsystems

IBM

- IBM is committed to making health care more effective through its business and clinical innovations, bringing together IBM resources, including information technology, industry insights, and research expertise
- IBM helps the health care industry develop and deliver safer, more affordable and more effective diagnostics, drugs, and medical care
- The Health Care Markets
  - Taconic Health Information Network and Community
  - North Carolina Healthcare Information and Communications Alliance (Research Triangle Park)
  - North Carolina Healthcare Information and Communications Alliance (Rockingham County)
- Other Partners
  - Argosy Omnimedia, Business Innovation, Cisco, HMS Technologies, IDL Solutions, Ingenium, and VICCS

Northrop Grumman

- A large-scale health IT systems integrator
- The developer of global enterprise EHRs and nationwide healthcare information exchanges for the DoD and VHA
- Experienced in disease surveillance and response solutions supporting the CDC, HHS, and state & local governments

- The Health Care Markets
  - Santa Cruz RHIO, Santa Cruz County, CA
  - Greater Cincinnati HealthBridge, Cincinnati, OH
  - Greater Cleveland, OH health market including, University Hospitals Health System, Cleveland Clinic Health System, and MetroHealth System
- Other Partners
  - Air Commander, Axolotl, Client/Server Software Solutions, Emdeon (WebMD), First Consulting Group, Oracle, SphereCom Enterprises, and Sun (SeeBeyond Technologies)

Nationwide Health Information Network - Timeline

Tomorrow

- Breakthrough implementation possibilities documented by consortia

Spring 2006

- Detailed technical design and architectures
- Recommended data and technical standards and security policies

Summer 2006

- Deployment plans
- Operational plans
- Revenue and cost models

Fall 2006

- Finish development and evaluate functional prototypes
- Live demonstrations

Early Opportunities

- Breakthrough implementations
  - Better understanding of requirements
  - Architecture and standards to support them
  - Critical data exchange for labs, drugs, demographics and biosurveillance
- Common foundational capabilities to support breakthroughs and NHIN
  - Patient record locators to help identify all patient data: paper and electronic
  - Identification and application of appropriate general Internet standards
  - Approaches for user authentication and access controls
  - Other privacy protections and solutions

Q & A

Standards Harmonization

Presented by: John Halamka, MD

Office of the National Coordinator
for Health Information Technology

Standards and Harmonization

- A *standard** specifies a well defined approach that supports a business process and
  - Has been agreed upon by a group of experts
  - Has been publicly vetted
  - Provides rules, guidelines, or characteristics
  - Helps to ensure that materials, products, processes and services are fit for their intended purpose
  - Available in an accessible format
  - Subject to ongoing review and revision process
- Harmonization is required when a proliferation of standards prevents progress rather than enables it

*This differs from the healthcare industry's traditional definition of "standards of care"

Healthcare Information Technology Standards Panel (HITSP)

- The HITSP is a group organized to harmonize the standards used to exchange health data in the United States
  - The Panel brings together experts from across the health care IT community – from consumers to doctors, nurses, and hospitals; from those who develop healthcare IT products to those who use them; and from the government agencies who monitor the U.S. health care system to those organizations who are actually writing the standards
  - The Panel's activities are led by the American National Standards Institute (ANSI), a not-for-profit organization that has been coordinating the U.S. voluntary standardization system since 1918

HITSP Board Members

- Accredited Standards Committee X12
- American College of Physicians
- Blue Cross and Blue Shield Association
- Clinical Data Interchange Standards Consortium (CDISC)
- Department of Defense
- Department of Health & Human Services
- Department of Veterans Affairs
- General Electric Co.
- Harvard Medical School
- Health Level Seven
- Healthcare Information & Management Systems Society (HIMSS)
- IEEE
- Mayo Clinic
- MedicAlert Foundation
- National Consumers League
- National Council for Prescription Drug Programs (NCPDP)
- National Electrical Manufacturers Association (NEMA)
- OASIS Corporation
- Pfizer, Inc.
- Public Health Data Standards Consortium
- SNOMED International

Laying the Foundation for the NHIN

- The panel members and experts have committed themselves to setting and implementing standards that will ensure the integrity and interoperability of health data
  - In some cases, redundant or duplicative standards will be eliminated
  - In other cases, new standards may be established to span information gaps
  - In all cases, the resulting standards serve the consumer and other healthcare stakeholders by addressing issues such as data accessibility, privacy and security

Current Landscape:
Disparate vendor systems, applications, and connectivity suites

- Historically, “unique” market needs within the healthcare community were addressed with customized systems, applications and standards
  - More than a dozen standards-setting organizations – from ANSI-accredited bodies to industry consortia and other forums – have developed a plethora of standards to meet the needs of specific sectors within the healthcare IT market
  - However, the disparate messaging systems, data elements and vocabulary now prevent the cross-system exchange of health information

Early Successes

- U.S. Health IT Standards Community
  - Cooperative partnerships have been and are being developed between and among certain standards developers
- Healthcare Information Technology Standards Panel
  - Within three months of its launch, the panel has grown to nearly 150 members, with hundreds of experts and a representative leadership body
  - Within one week of announcement, HITSP use case committee workgroups were formed and began responding to breakthroughs defined by the Community

Milestones

- During 2006, HITSP will. . .
  - Implement processes for resolving gaps and overlaps in the health IT standards landscape
  - Develop and implement, as appropriate, harmonized standards that support the Community's breakthroughs
  - Promote public awareness of health IT standards harmonization activities and provide an open, balanced and transparent review mechanism
  - Develop a business model that will sustain the HITSP for as long as standards harmonization and coordination is necessary

Beyond the 2006 Milestones

- Collaborate With All Contractors To:
  - Develop harmonized standards and unambiguous implementation guides which provide precise instructions for data sharing
  - Standardize the interoperability specifications for technology products, while permitting differentiation and competitive advantage in the marketplace
  - Empower patients and care providers with Electronic Health Records (EHR) that facilitate easy access to critical health data that is accurate, private and secure

Q & A

The Certification Commission for Healthcare Information Technology

Presented by: Mark Leavitt, MD, PhD

Office of the National Coordinator for Health Information Technology

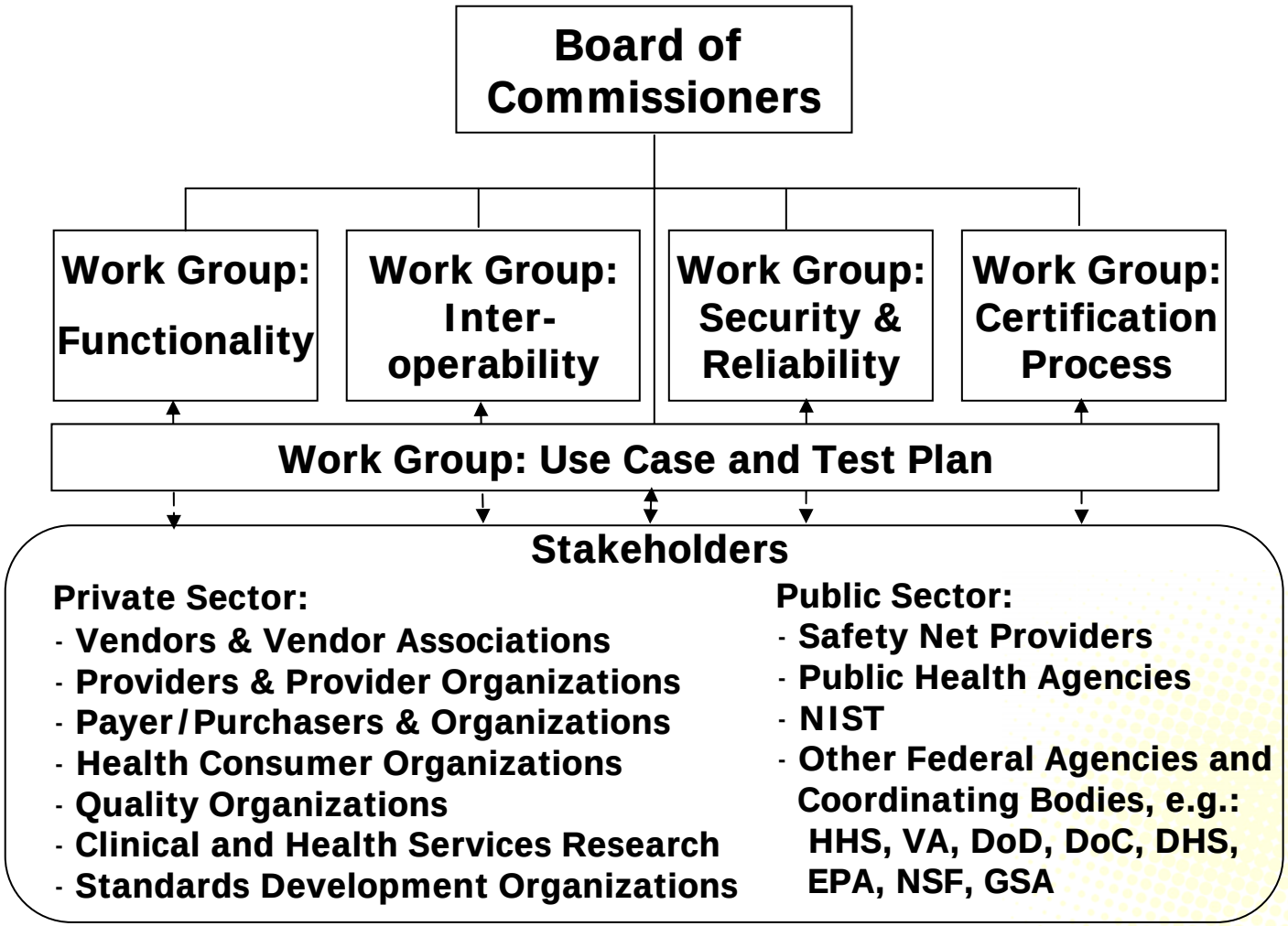
Mission of CCHIT

To accelerate the adoption of robust, interoperable health IT throughout the US healthcare system, by creating an efficient, credible, sustainable mechanism for the certification of health IT products.

Background

- **July 2004:** Certification of health IT products a key action in HHS Strategic Framework
- **Sept 2004:** AHIMA, HIMSS, and the Alliance fund and launch CCHIT
- **June 2005:** Eight additional organizations add $325k funding support
- **July 2005:** HHS announces health IT Strategy and releases RFP for Compliance Certification
- **Sept 2005:** CCHIT awarded a three-year, $7.5M HHS contract to develop and assess EHR and network certification criteria and inspection process

Organization



Diverse Stakeholder Representation in Governance and Development

Commission

- At least two from each group:
  - Healthcare Providers
  - Health IT Vendors
  - Purchasers/payers
- At least one from each group:
  - Clinical and health-services researchers
  - Federal government agencies
  - Health care consumers
  - Public health agencies
  - Safety net providers
  - Standards development organizations
  - Quality improvement organizations

Work Groups

- Open Call for Participation
  - 275 applicants responded
  - Rank by qualifications then adjust for balance
- Co-Chairs
  - Two co-chairs per work group
  - Represent two different stakeholders
- Members
  - Eight to 10 members per workgroup
  - Qualified experts
  - Diversity of backgrounds

Board of Commissioners

- Mark Leavitt, MD, PhD
  Chair, CCHIT

- Abha Agrawal, MD
  Director, Medical Informatics
  Kings County Hospital
- Stephen Badger
  Chief Executive Officer
  GWU Medical Faculty Associates
- David W. Bates, MD, MSc
  Chief, General Medicine
  Brigham and Women's Hospital
- Karen M. Bell, MD
  Acting Director, Office of Health IT Adoption
  ONCHIT
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  Colo. Dept of Public Health & Environment
- Kelly Cronin
  Senior Advisor to the Administrator
  CMS
- Suzanne Delbanco,
  Executive Director
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  National Alliance for Hispanic Health
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  Corporate CIO & Senior VP of IS
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  Chief Program Officer
  California HealthCare Foundation

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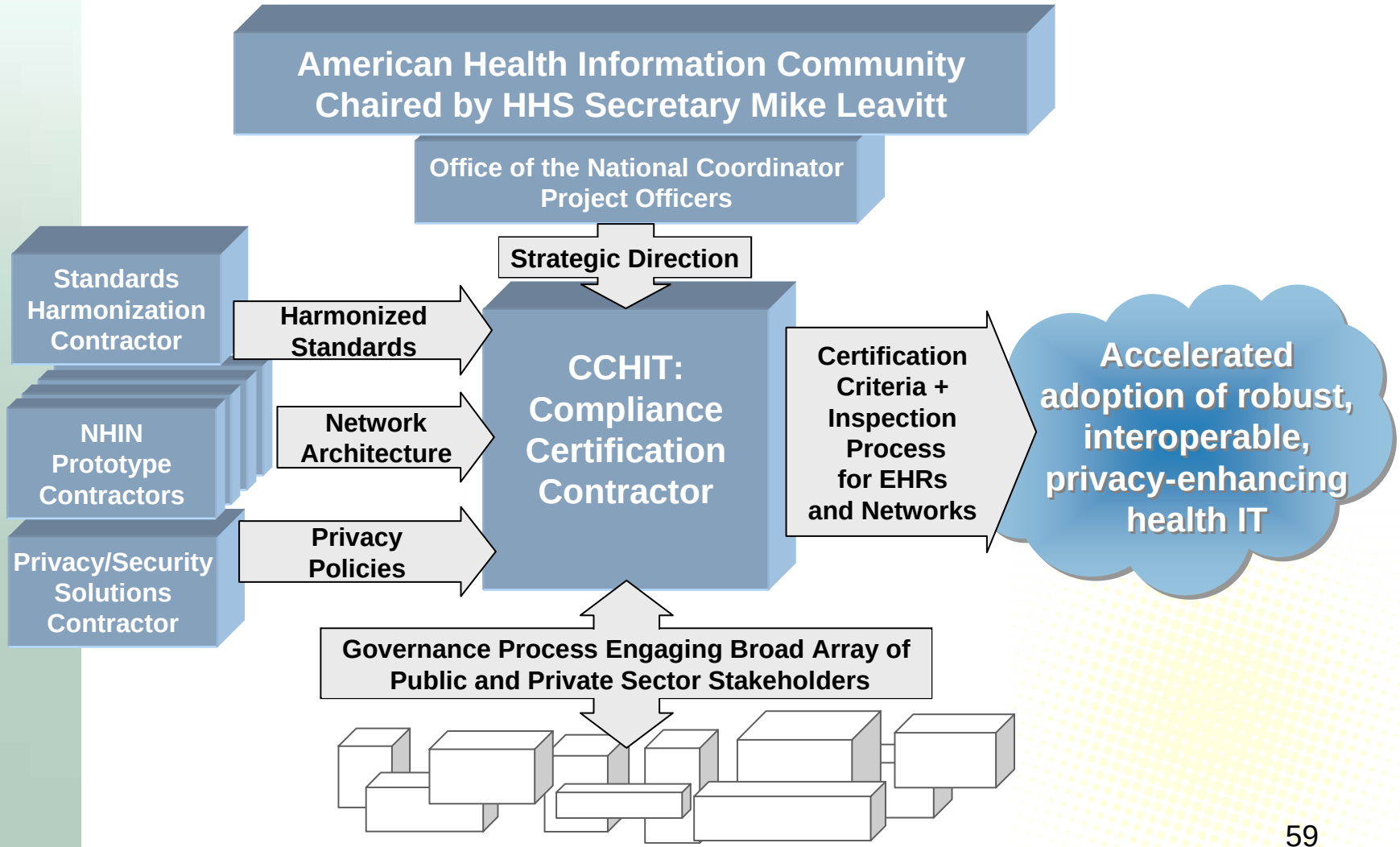
  Executive Vice President / CEO
  American College of Physicians
- Reed V. Tuckson, MD
  Senior VP, Consumer Health
  United Health Group
- Andrew G. Ury, MD
  Chief Executive Officer
  Physician Micro Systems, Inc.

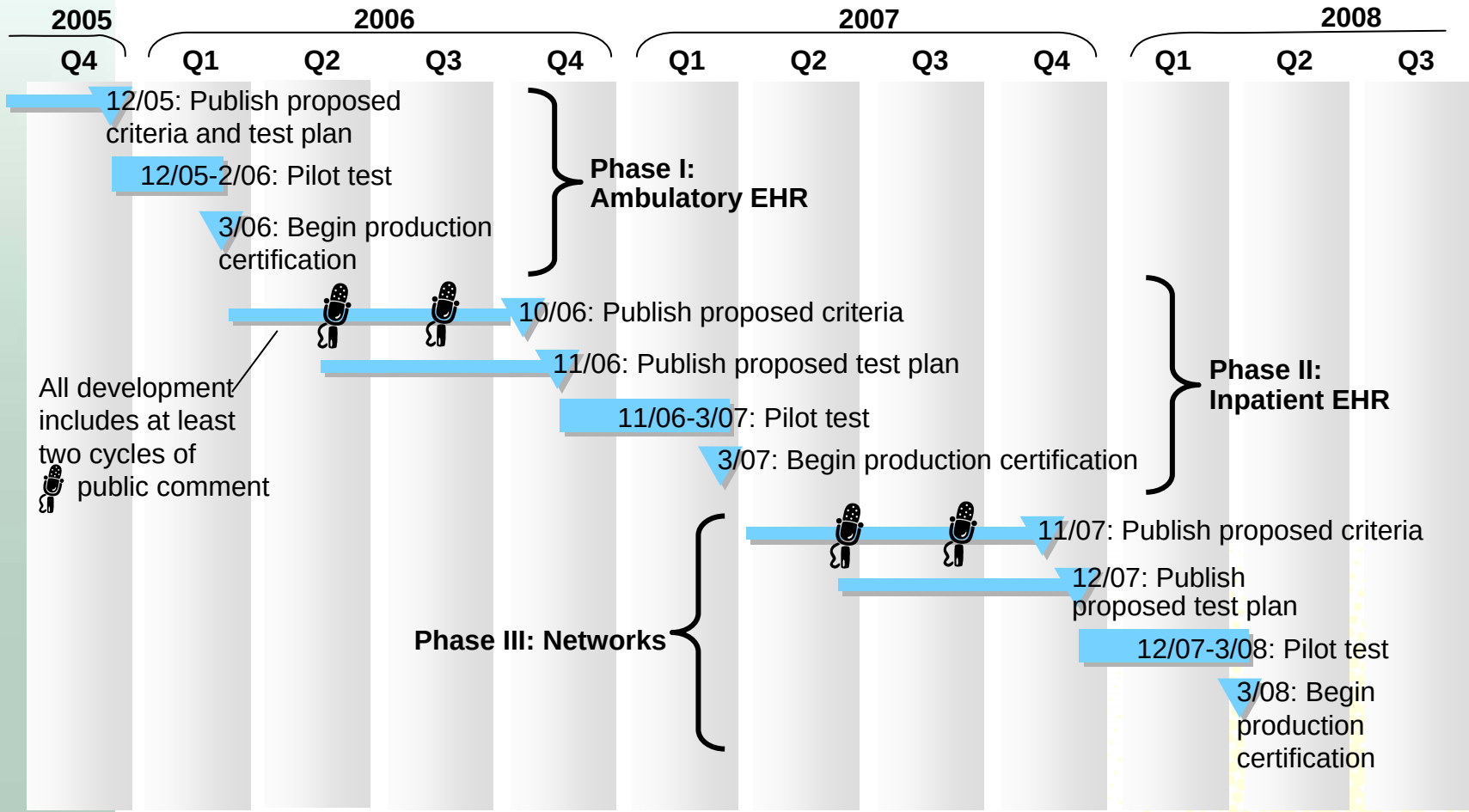
Role of CCHIT within the Health IT Strategic Landscape



Objectives of Health IT Product Certification

- Accelerate adoption by reducing the risks of investing in health IT
- Facilitate interoperability of health IT products within the emerging national health information network
- Enhance availability of health IT adoption incentives and relief of regulatory barriers
- Ensure that health IT products and networks always protect the privacy of personal health information

CCHIT Contractual Timetable



Not Shown: Certification criteria and inspection process for each domain are updated annually after initial development

Milestones Completed or Anticipated in 2005 and 2006

- **Nov 2005:** publish proposed criteria and test process for certifying ambulatory EHR products
- **Feb 2006:** complete Pilot Test of certification
- **June 2006:** have certified ambulatory EHR products in the marketplace
- **September 2006:** begin certifying e-prescribing and laboratory interoperability of EHRs (dependent on standards harmonization)
- **October 2006:** publish proposed criteria and test process for certifying inpatient EHR products

Q & A

For more information, please visit:

www.cchit.org