PITAC Health Care Delivery and IT Subcommittee

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HIT Subcommittee Findings and Recommendations

Purpose of this presentation and discussion:

- Share revised HIT recommendations with full PITAC for final deliberation.

- Vote on revised recommendations with any modifications

President's Radio Address

"[W]e can control health care costs and improve care by moving American medicine into the information age. My budget for the coming year proposes doubling to $100 million the money we spend on projects that use promising health information technology. This would encourage the replacement of handwritten charts and scattered medical files with a unified system of computerized records. By taking this action, we would improve care, and help prevent dangerous medical errors, saving both lives and money."

January 24, 2004

Since our last meeting

- Executive Order establishing the Office of the National Coordinator for Health Information Technology

- Presidential events in Minneapolis, Baltimore, and Nashville focusing on importance of Health IT

- Summit meeting on health IT convened by Secretary Tommy Thompson

- Appointment of Dr. David Brailer to the post of National Coordinator for Health IT

Key Goals

- Accelerate the adoption of information technology in the health care sector.

- Achieve substantial economic and social benefits:
  - Reduce medical errors.
  - Reduce unproductive healthcare expenditures.
  - Improve quality and consistency of care.

Pillars of the NHII

Changes from Draft Recommendations

- Responses to all comments of PITAC members
  - some responses are contained in introduction, findings, and discussion sections. No comments were not included.

- Responses to public comments

- Reworking of SNOMED recommendation

- Increased specificity with regard to implementation of recommendations

Revolutionizing Health Care Through Information Technology

- **Table of Contents**

I. Economic Incentives for Investment in Health IT

Increase Federal support for demonstration-based studies that quantitatively measure all major costs and benefits of public and private NHII and EHR investments and practices. Where benefits are not directly returned to those who must invest in IT solutions, Federal means should be sought for redressing the imbalance. One approach that should be studied is that of adopting reimbursement incentive structures that reward the use – rather than merely the installation – of EHR systems, health information exchange, electronic order entry, and computerized decision support under Medicare and other Federal health care programs. Approaches should also be identified to encourage private payers to provide similar incentives and to measure the impact of those incentives

II. Health Information Exchange

Increase Federal support for community and regional demonstrations of health information exchange that can draw upon and provide remote viewing of existing data sources, many of which do not conform to highly specific data standards. R&D is needed to devise standard ways to present information that help clinicians integrate disparate data from multiple sources. The Federal government should coordinate these activities across the relevant agencies, HHS (including the Food and Drug Administration [FDA]), Department of Defense (DoD), NIST, and NSF.

III. Facilitating the Sharing of EHR Technologies

Promptly convene a Federal rapid-response task force under the direction of the new National Health Information Technology Coordinator to identify actual and perceived legal impediments to sharing of EHR systems by physicians, hospitals, laboratories, and pharmacies. That task force should include medical, legal, and economic expertise and representation from the Office of the Inspector General (OIG)/HHS, the Office of the General Counsel (OGC)/HHS, the Department of Justice (DOJ), and GAO. The task force should produce clear guidance that is widely accepted by all branches of Government and private agencies and that maximally benefits the populace by facilitating the deployment of health IT solutions.

IV. Leveraging Federal Health IT Investments

Develop a single set of standards for EHR systems that can be implemented across all Federally implemented EHRs and shared with the private sector. Develop pathfinder demonstrations that share appropriate Federal health IT implementation knowledge across all departments of the Government and with the private sector. Such demonstrations should use the standards analyses and recommendations of the Consolidated Health Informatics (CHI) eGovernment initiative as a starting place.

IV. Leveraging Federal IT Investments (continued)

At the appropriate level of development, demonstrations should target rural and disadvantaged communities that are underserved by private-sector vendors of health IT solutions. The new HHS position of National Health Information Technology Coordinator would be a logical leader to coordinate these efforts, which should be undertaken at the earliest possible opportunity.

V. Implementing a Standard Clinical Vocabulary

Federal incentives are needed to enable the incorporation of SNOMED-CT into EHR systems so that those systems can exchange normalized expressions of clinical concepts, implement standard computer-aided decision-support protocols to reduce medical errors and provide more detailed information for quality-improvement programs. SNOMED-CT also must be freely available as part of a core set of standardized clinical vocabulary and supported as a continually improving standard that is kept up to date. Standard, automated mapping of SNOMED-CT to the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) must also be freely available.

V. Standard Clinical Vocabulary (continued)

- Financial incentives must be provided for EHR systems to generate SNOMED-CT coded clinical information (in Federal pay-for-performance programs, for example). A migration strategy must be adopted for Federal health program reimbursements to be based on the reporting of diagnoses and procedures coded in SNOMED-CT for clinical purposes. In the proposed rulemaking process of replacing ICD-9-CM with ICD-10-CM, HHS must avoid the potential for that migration to retard the adoption and implementation of SNOMED-CT in EHR systems. Study of alternative approaches may be required.

VI. Standardized, Interoperable EHRs

Develop a single set of data standards for the most common forms of clinical information. This effort should leverage efforts underway within Federally implemented systems. Examples of data to be included in the standard are vital signs, examination findings, and review of systems information. These standards should be developed in the public domain in conjunction with voluntary standards-developing organizations such as HL7 and ASTM so that they may be implemented in proprietary EHR systems and also used as a fully interoperable transport standard between EHR systems. Coordination is needed across relevant HHS, VA, and DoD agencies, along with NIST, NSF, and others, with the leadership of the new HHS position of National Health Information Technology Coordinator.

VI. Standardized EHRs (continued)

- Conduct research and development into low-cost tools for standardizing new and legacy digital data without disrupting current clinical workflow. Such tools might draw upon existing Federal projects for rules-based and statistically based natural-language processing and related technologies.

- In addition to specifying the data elements and architecture, standards developed in this environment should also address the redundancy and persistence of core EHR data that are needed to create a reliable, federated health information infrastructure.

VII. The Human-Machine Interface and EHRs

Conduct research and development in innovative and efficient human-machine interfaces that are optimized for use in the health care sector. Research on the use of IT to improve the workflow for health care delivery functions is a particularly inviting target. Technology examples include:

➢ Improved medical-domain voice-recognition data conversion systems

➢ Improved automated entry of instrument data

➢ Improved templates that simplify and accelerate data entry without training

➢ Automated methods for converting both new and legacy electronic data to normalized form

Agencies involved in human-computer interface and data management research include relevant agencies in HHS and DoD, as well as NIST and NSF.

VIII. Coordination of Federal NHII Development and Implementation

Establish a senior body to coordinate the development and deployment of Health IT solutions across all Federal departments and agencies and to coordinate the associated technology transfer to and from the private sector. This body might be composed of a core group of individuals at the undersecretary level from each affected department and agency, with additional expertise acquired as needed. Federal policy recommendations relevant to the privacy and security issues that could impede the implementation of health IT should be an early product of this body.

IX. Unambiguous Patient Identification

Convene an interagency, public/private task force to determine ethical, legal, and practical means for unambiguously identifying and linking patient data from multiple sources in a unique, secure, and trusted manner that protects patient privacy and gives the patient control over the use of his or her medical information. Activities of the task force should include an estimate of the costs and benefits associated with unique patient identifiers (IDs) derived from existing or novel patient attributes. The task force should consider existing models and ongoing private-sector efforts that emphasize private, rather than government, control of data storage, transmission, and sharing. There must be ongoing recognition of and accommodation for those people who wish to receive all or part of their care anonymously, as well as for those who are visitors to or temporary residents of the United States.

X. Encrypted Internet Communications

Encryption currently protects much national security and commercial information transmitted across the Internet. Despite permissive language in the security rules implementing the HIPAA related to this use of the Internet, current CMS policies require the use of hub and spoke architectures that generally use 1970s protocols such as Xmodem and Kermit. This impedes the development of our National Health Information Infrastructure (NHII) by forcing use of expensive, largely obsolete communication links in lieu of securely encrypted, inexpensive Internet transactions.

X.Encryption (continued)

- In the absence of a single coordinating body for certificate authorities, bilateral encryption agreements across all health information systems may be needed. With the number of health entities that must communicate, this situation would be untenable. Therefore, timely studies should be commissioned to assess the current maturity and efficiency of encryption techniques and digital signatures for sharing health information and the efficacy of federalizing such techniques. It is particularly important to remove any regulatory impediments to e-mail communication between willing patients and their caregivers.

XI. Trust Hierarchy and Authentication

- **The Federal government, through NIST in the Department of Commerce or another civil, cross-department technology entity, should accelerate the definition and establishment of extensible, hierarchical authentication trust trees and standards for optional use by the private health sector, where these trees include both government and private providers; supportive research and development are required.**

- **Additional research should address how the current legal framework for authenticating written signatures (notary public laws) might be extended to electronic signatures as part of this trust hierarchy. Supportive research and development are required from agencies such as NSA, NIST, NSF, DoD, and the General Services Administration (GSA).**

XII. Tracing Access Requests

Federal policies should promote development and use of data-access tracking (or auditing) systems in the health care sector, including research and development of such means and pathfinder demonstrations in large systems.

Discussion