Recommendations from Past Reports: Standards

Recommendation	Report	Implemented?
Health care professionals and organizations should adopt the computer-based patient record (CPR) as the standard for medical and all other records related to patient care.	*The Computer-Based Patient Record: An Essential Technology for Health Care* (1997)	
The public and private sectors should join in establishing a Computer-based Patient Record Institute (CPRI) to promote and facilitate development, implementation, and dissemination of the CPR.	*The Computer-Based Patient Record: An Essential Technology for Health Care* (1997)	
The CPRI should promulgate uniform national standards for data and security to facilitate implementation of the CPR and its secondary databases.	*The Computer-Based Patient Record: An Essential Technology for Health Care* (1997)	
To ensure that the Internet evolves in ways supportive of health needs over the long term, the health community should work with the networking community to develop improved network technologies that are of particular importance to health applications of the Internet. • More readily scalable techniques to guarantee bandwidth on demand. • Stronger forms of authentication. • Symmetric or dynamically reconfigurable broadband technologies for the last mile. • Hardened quality-of-service guarantees. • Disaster operations	*Networking Health: Prescriptions for the Internet* (2000)	

Recommendation	Report	Implemented?
The NCVHS recommends that the Secretary of HHS consider acceptance of forthcoming NCVHS recommendations for specific PMRI standards. The first set of these recommendations will be delivered to the secretary eighteen months following submission of this Report and will include suggested implementation timeframes that consider industry readiness for adoption. For each recommendation for PMRI standards, NCVHS encourages the Secretary to provide an open process to give the public an opportunity to comment on the PMRI standards proposals before final rules are adopted.	*NCVHS Report to the Secretary on Uniform Standards for Patient Medical Record Information*(2000)	
The NCVHS recommends that the Secretary of HHS adopt the Guiding Principles for Selecting PMRI Standards as the criteria to select uniform data standards for patient medical record information (PMRI). These Guiding Principles are based on those published in the notice of proposed rulemaking for selecting financial and administrative transaction standards, which have been modified by adding characteristics and attributes that specifically address interoperability, data comparability, and data quality.	*NCVHS Report to the Secretary on Uniform Standards for Patient Medical Record Information*(2000)	
The NCVHS recommends that the Secretary of HHS, for each standard recommended by NCVHS, commit funding for development of a uniform implementation guide, development of conformance testing procedures, and ongoing government licensure of, or comparable arrangements for, healthcare terminology standards.	*NCVHS Report to the Secretary on Uniform Standards for Patient Medical Record Information*(2000)	
The NCVHS recommends that the Secretary of HHS support demonstration of the benefits and measurement of the costs of using uniform data standards for PMRI that provide for interoperability, data comparability, and data quality.	*NCVHS Report to the Secretary on Uniform Standards for Patient Medical Record Information*(2000)	

Recommendation	Report	Implemented?
The NCVHS recommends that the Secretary of HHS provide immediate funding to accelerate the development and promote early adoption of PMRI standards. This should take the form of support for: a. government membership and participation in standards development organizations b. broader participation of expert representation in standards development c. enhancement, distribution, and maintenance of clinical terminologies that have the potential to be PMRI standards through: (1.) government-wide licensure or comparable arrangements so these terminologies are available for use at little or no cost. (2.) augmentation of the national Library of Medicine's Unified Medical Language System (UMLS) to embody enhanced mapping of medical vocabularies and classifications. (3.) development and testing of quality measures and clinical practice guidelines, such as published in the Agency for Healthcare Research and Quality (AHRQ) clearinghouses, and patient safety measures for their compatibility with existing and developing healthcare terminologies. (4.) development and testing in multi-agency projects, such as GCPR (Government Computer-based Patient Record) framework project. d. coordination of data elements among all standards selected for adoption under HIPAA through the development and maintenance of an open meta-data registry and working conferences to harmonize message format and vocabulary standards. e. improvement of drug data capture and use by: (1.) requiring the Food and Drug Administration (FDA) to make publicly available its National Drug Codes (NDC) database registry information.	*NCVHS Report to the Secretary on Uniform Standards for Patient Medical Record Information*(2000)	

Recommendation	Report	Implemented?
(2.) requiring the FDA to develop a drug classification system based on active ingredients so that all drugs that fall into a given category can be identified by the name of that category. (3.) encouraging the FDA to participate in private sector development and ongoing maintenance of a reference terminology for drugs and biologics that promotes the ability to share clinically specific information. f. early adoption of PMRI standards within government programs to provide broadened feedback to the standards development community.		
The NCVHS recommends that the Secretary of HHS promote United States' interest in international health data standards development through HHS participation in international healthcare informatics standards development organizations and, in cooperation with the Secretary of the Department of Commerce, through monitoring the activity of U.S. healthcare information system vendors abroad.	*NCVHS Report to the Secretary on Uniform Standards for Patient Medical Record Information*(2000)	
The NCVHS recommends that the Secretary of HHS promote the equitable distribution of the costs for using PMRI standards among all major beneficiaries of PMRI.	*NCVHS Report to the Secretary on Uniform Standards for Patient Medical Record Information*(2000)	
State and local data agencies should collaborate with Federal agencies and standards organizations to develop common data reporting formats and standardized methods of transmission for all pertinent health data.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	
Standards development organizations should develop new or modified standards as requirements become known.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	

Recommendation	Report	Implemented?
Standards development organizations should ensure participation by consumer representatives.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	
Standards development organizations should identify mechanisms to accelerate the standards development process and improve the coordination of standards development across standardsetting bodies and consistent with the direction of the NHII.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	
Standards development organizations should promote cooperation with standards being developed internationally for population health, patient care, or data-security purposes.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	
The federal government should set an aggressive agenda for the establishment of standards for the interchange of clinical data to support patient safety. Federal financial support should be provided to accomplish this agenda.	*Patient Safety: Achieving a New Standard for Care* (2004)	
The federal government should move expeditiously to identify a core set of well-integrated, nonredundant clinical terminologies for clinical care, quality improvement, and patient safety reporting. Revisions, extensions, and additions to the codes should be compatible with, yet go beyond, the federal government's initiative to integrate all federal reporting systems.	*Patient Safety: Achieving a New Standard for Care* (2004)	
The federal government should provide support for the accelerated development of knowledge representation standards to facilitate effective use of decision support in clinical information systems.	*Patient Safety: Achieving a New Standard for Care* (2004)	
A NHIN should be a decentralized architecture built using the Internet linked by uniform communications and a software framework of open standards and policies.	*Summary of Nationwide Health Information Network (NHIN) Request for Information (RFI) Responses* (2005)	

Recommendation	Report	Implemented?
A nationwide mandatory reporting system should be established that provides for the collection of standardized information by state governments about adverse events that result in death or serious harm. Reporting should initially be required of hospitals and eventually be required of other institutional and ambulatory care delivery settings. Congress should • Designate the National Forum for Health Care Quality Measurement and Reporting as the entity responsible for promulgating and maintaining a core set of reporting standards to be used by states, including a nomenclature and taxonomy for reporting; • Require all health care organizations to report standardized information on a defined list of adverse events; • Provide funds and technical expertise for state governments to establish or adapt their current error reporting systems to collect the standardized information, analyze it and conduct follow-up action as needed with health care organizations. Should a state choose not to implement the mandatory reporting system, the Department of Health and Human Services should be designated as the responsible entity	*To Err is Human: Building a Safer Health System* (2000)	

Recommendation	Report	Implemented?
Information technology organizations and trade groups should designate internal representatives to provide strategic leadership and coordination on issues related to NHII development and implementation. Representatives should participate in meetings convened by HHS and collaborative activities with other stakeholders.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	
Healthcare plans and purchasers should identify representatives with diverse backgrounds to participate actively in the work of standards development organizations.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	
A governance entity composed of public and private stakeholders should oversee the determination of standards and policies.	*Summary of Nationwide Health Information Network (NHIN) Request for Information (RFI) Responses* (2005)	
Federal health data agencies should collaborate with State and local government agencies and standards organizations to develop common data reporting formats and standardized methods of transmission of all pertinent health data.	*Final Report NHII - Information for Health: A Strategy for Building the National Health Information Infrastructure* (2001)	
For the next five years, all private and government care agencies should use published health care informatics message standards as a starting point for all new applications involving applicable internal and external health care information transmissions. Different published standards would apply to different kinds of communications, depending upon the subject matter and kind of communication as described below	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
AMIA recommends that HL7 be used for within-institution transmission of orders, clinical observations, and clinical data (including test results); admission, transfer, and discharge records; and charge and billing information.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	

Recommendation	Report	Implemented?
ASTM E1238 should be used for most interchanges of clinical data between institutions. HL7, which is a practical superset of ASTM E1238, is an alternative when tighter linkages are desired.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
ACR-NEMA should be used for the transmission of radiologic images and for message transmissions within PACS.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
AMIA recommends the use of ASTM E1394 for communication of information from laboratory instruments to computer systems.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
AMIA suggests that the NCPDP be used for communication of prescription billing information and eligibility information between the community pharmacies and third-party payers.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
AMIA suggests the use of ASC X12's standards for billing and remittance transactions between a health care provider and a third-party payer	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
AMIA recommends its (ASTM E1460, or "Arden Syntax") use for the transmission of medical logic modules.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
AMIA recommends its (ASTM E1467) use for the transmission of such EEG and EMG signals.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	

Recommendation	Report	Implemented?
ANSI Z39.50 is a draft standard for transmitting requests for bibliographic information to bibliographic retrieval systems. AMIA recommends that it be considered for all such communications.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
With advice from AHCPR and CPRI, and in coordination with ANSI HISPP and the message standards developers, they should have the formal responsibility for developing these standards.	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	
Codes are needed to address (at least, the following) subject domains: • Drugs (e.g., penicillin V) • Diagnoses (e.g., pneumonia, heart failure) • Symptoms and findings (e.g., fatigue, swollen ankle) • Anatomic sites (e.g., right lower lobe of lung) • Microbes and etiologic agents (e.g., E. coli) • Clinical observations (e.g., blood pressure, oral intake, physical examination of heart) • Patient outcome variables and functional status (e.g., SF-36, Hamilton depression score, Inter-Study TYPE variables) • Medical devices (e.g., hip implant, tongue blades) • Units of measure • Diagnostic study results (e.g., blood glucose, chest, x-my, cardiac MUGA) • Procedures (e.g., triple bypass surgery, endoscopy, skin care)	*Standards for Medical Identifiers, Codes, and Messages Needed to Create an Efficient Computer-Stored Medical Record (1994)*	