



2nd Annual NM HIPAA Conference

**NCVHS Recommendations for
HIPAA PMRI Standards**

October 22, 2001

Albuquerque, New Mexico

Jeff Blair, Vice Chair

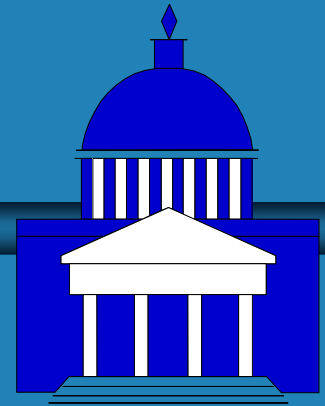
Subcommittee on Standards and Security



Agenda

- ✧ **HIPAA directive for patient medical record information (PMRI) standards**
- ✧ **The role of NCVHS**
- ✧ **NCVHS general recommendations on PMRI**
- ✧ **HHS action on PMRI recommendations**
- ✧ **Selection of specific PMRI standards**

HIPAA directive for PMRI Standards

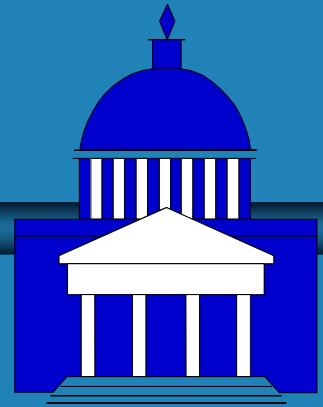


HIPAA, Subtitle F, Section 263

The National Committee on Vital and Health Statistics (NCVHS) will:

- ✧ **Study issues related to adoption of uniform data standards for patient medical record information & electronic exchange of such information**
- ✧ **Report to the Secretary not later than 4 years after date of enactment of HIPAA (*by August 21, 2000*) recommendations & legislative proposals for such standards & electronic exchange**

What is the NCVHS ?



- * **The National Committee on Vital and Health Statistics**
- * **Statutory Advisory Committee to the Secretary of HHS**
- * **Provides recommendations on health information policies**
- * **Committee members appointed by HHS and Congress**

The Regulatory Process to Adopt HIPAA Standards

- * Congress sets forth the legislative mandate in the administrative simplification provisions of HIPAA
- * The NCVHS studies these issues and makes recommendations to the Secretary of HHS specifying which healthcare information standards should be adopted
- * HHS prepares and issues a Notice of Proposed Rule Making (NPRM) and provides 60 to 90 days for public comment
- * HHS considers the public comment on each NPRM and then publishes the final regulations

NCVHS Recommendations on PMRI Standards to HHS

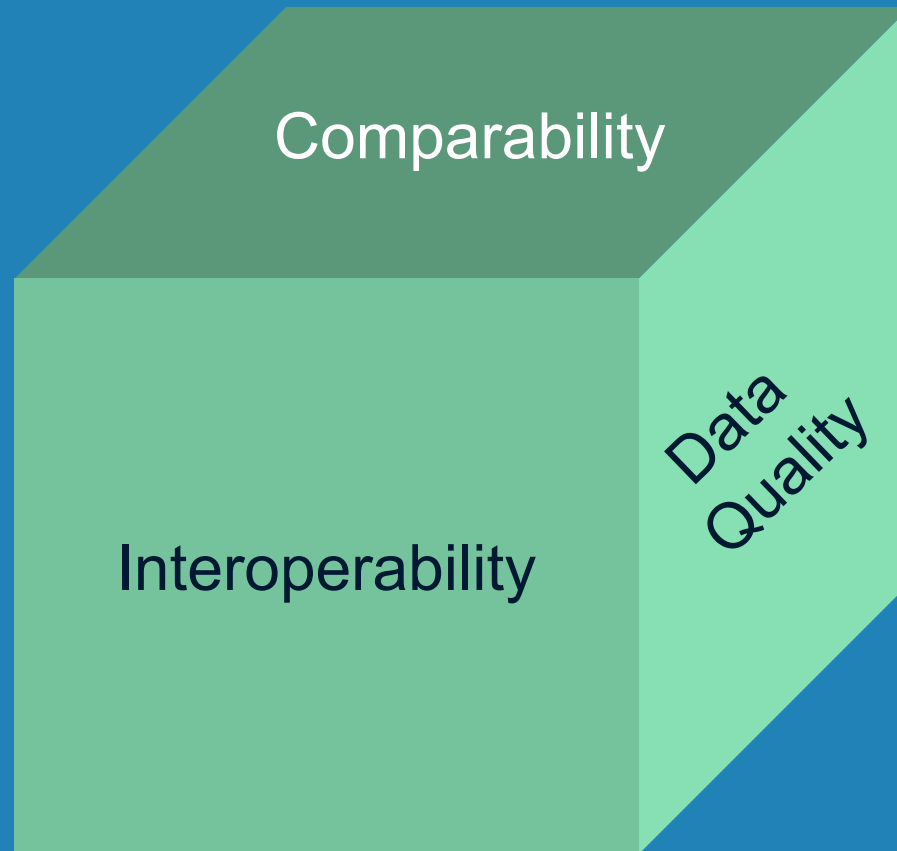
- * Presented to the HHS Data Council on August 8th, 2000
- * PMRI Report provided a framework and the guiding principles to move forward
- * The report set forth ten recommendations

Scope of PMRI Report

- ✦ **Addresses major impediments to the sharing of clinically specific PMRI:**
 - Interoperability
 - Comparability
 - Data Quality, Accountability and Integrity

- ✦ **Recognizes other issues:**
 - Privacy, confidentiality, & security
 - Diverse state laws
 - Business case for standards development
 - National health information infrastructure
 - Data elements for PMRI content

Overview of PMRI Dimensions

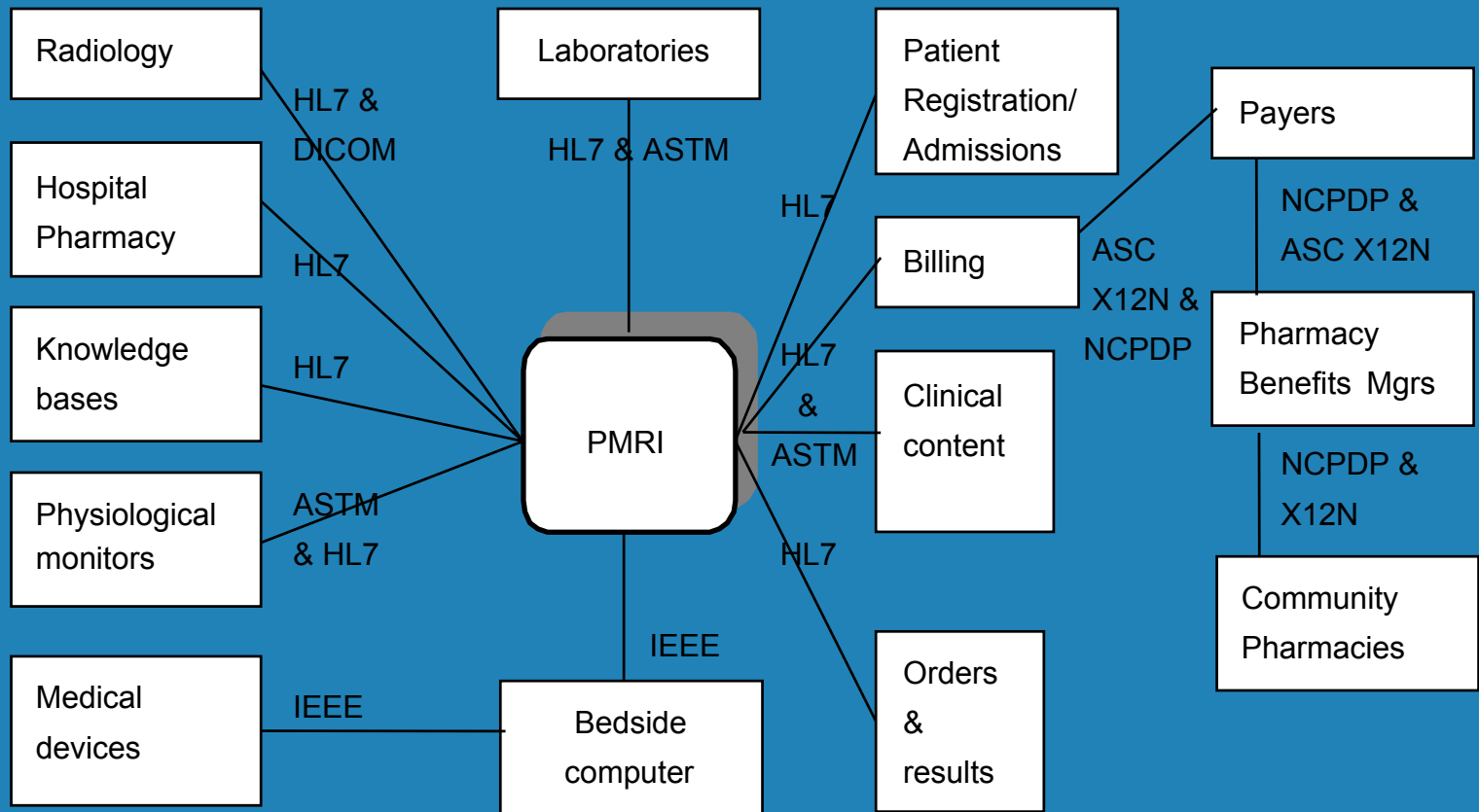




Interoperability Issues

- ✧ Interoperability allows one computer system to exchange data with another computer system
- ✧ Most message format standards tend to be at the syntax level with efforts to move toward the semantic level
- ✧ There are few standard implementation guides
- ✧ There is limited conformance testing
- ✧ There is a need to accelerate the standards development process

Interoperability Status



(Adapted from Electronic Health Records: Changing the Vision, Eds. GF Murphy, MA Hanken, and KA Waters. Philadelphia: W. B. Saunders Company, 1999)

Comparability Issues

- * **Comparability of PMRI requires that the meaning of data is consistent when shared among different parties**
- * **This will require the further development of clinically specific medical terminologies, reference terminologies, meta data registries and meta thesauruses**
- * **This should enable us to get closer to an environment where data can be captured once at the point of care with derivatives of this information available for reimbursement, clinical research and public health**

Comparability Status

Other Codes

- Health Language Center
- UMDNS (ECRI)*
- DEEDS
- UPN (HIBCC)/UPC (UCC)

Message Specific Codes

- DICOM
- NCPDP
- IEEE
- HL7*
- X12N

Nursing Codes

- HHCC*
- NANDA*
- NIC*
- NMMDS
- NOC*
- OMAHA*
- PCDS*
- PNDS

Diagnoses & Procedure Codes

- Alternative Link*
- CDT-2*
- CPT-4*
- HCPCS*
- ICD-9-CM/ICD-9-V3*
- ICD-10-CM*
- ICD-10-PCS
- ICIDH-2

Convergence

SNOMED RT/
NHS Clinical Terms

Clinically Specific Codes

- DSM*
- Gabrieli
- LOINC*
- MEDCIN
- MedDRA
- SNOMED V3*
- NHS Clinical Terms*

Drug Codes

- First Data Bank*
- Multum *
- NDC

* Fully or partially included in the
UMLS Metathesaurus as of March 1, 2000

Data Quality Issues

* **Improving Data Quality will address:**

- Variation in rigor of data editing
- Missing data
- Abstraction of data is error-prone
- Lack of standardized definitions
- Lack of uniformity in units of measure
- Nonstandard codes/modification of standards
- Limitations of classification systems
- Lack of ability to uniquely identify patients

* **Data Accountability** - identification of party responsible for data often incomplete or not retained for analysis

* **Data Integrity** - unauthorized alteration or destruction by accidental or intentional means



Summary of Recommendations

1. HHS adopts the Guiding Principles for the selection of PMRI standards.
2. NCVHS recommends specific PMRI standards for adoption.
3. HHS takes immediate action to accelerate PMRI standards development & promote early adoption.
4. HHS funds PMRI implementation guides, conformance testing and government licensure of clinically specific terminologies.
5. HHS supports demonstration of PMRI cost/benefits.
6. HHS supports research to improve clinical data capture.
7. HHS accelerates the development of NHII with PMRI standards.
8. HHS support for US participation in international standards.
9. HHS incentives to promote equitable distribution of PMRI implementation costs.
10. HHS to promote legislation to protect PMRI privacy and address diverse state laws.

HHS Action on PMRI Recommendations

- * PMRI Report presented to HHS Data Council on August 8, 2000
- * The chair of the Data Council directed every HHS agency/department to review the report, identify recommendations that affect their agency/department and report on their plans for action
- * The agencies/departments have provided status and progress reports

HHS Actions on PMRI

Recommendation 1

1. HHS adopts the Guiding Principles for the selection of PMRI standards

- * *HHS supports the use of PMRI guiding principles*
- * *GCPR project indicates that they comply with the PMRI guiding principles*
- * *HHS assigns the Data Council as focal point for further PMRI recommendations*

HHS Actions on PMRI Recommendation 2

2. NCVHS recommends specific PMRI standards for adoption

- * *NCVHS decided to address the selection of standards in phases*
- * *The first phase will be recommendations for message format standards with a target date of February 2002*
- * *NCVHS has tailored the guiding principles to make them more appropriate for selecting message format standards*
- * *NCVHS received input from SDOs by July 2001*
- * *Testimony on message format standards from vendors and users is scheduled for October 2001*

HHS Actions on PMRI

Recommendation 3a

3. HHS takes immediate action to accelerate PMRI standards development and promote early adoption

a. Support greater government participation in PMRI SDOs

- * *HHS is making a concerted effort to have greater representation from HHS agencies/departments in PMRI SDOs. AHRQ, CDC, CMS, FDA, IHA and VA have reported on their participation in PMRI SDOs, coordination boards and international standards bodies*
- * *HHS is exploring ways to strengthen its support for ANSI-HISB*

HHS Actions on PMRI Recommendation 3b

3. HHS takes immediate action ...

b. by encouraging greater expert representation from diverse sources in the standards development process

- * *AHRQ has recommended that HHS create an SDO focal point to help address this recommendation*
- * *HHS (including FDA) is doing a legal check to see if it could provide some government communications or physical facilities to SDOs as appropriate*
- * *HHS is encouraging broader representation in standards organizations through its support for the Public Health Data Standards Consortium (PHDSC)*

HHS Actions on PMRI

Recommendation 3c

3. HHS takes immediate action to ...

c(1) Enhance, distribute, and maintain clinical terminologies that have the potential to be PMRI standards

- * *NLM provides support for ongoing development and free distribution of LOINC. Funders include NLM, DOD, VA and CMS*
- * *The CDC has purchased a limited license to use SNOMED in cancer registries across the nation*
- * *NLM is negotiating with CAP to arrange for government licensure of SNOMED RT at little or no cost to users Funders would include NLM, CDC, VA, DOD, and possibly other HHS agencies*

HHS Actions on PMRI

Recommendation 3c (cont..)

3. HHS takes immediate action to ...

c(2&3). Augment terminology mapping and quality measures

- * *NLM and the FDA have enabled the mapping of MedDRA into the NLMs UMLS*
- * *AHRQ is supporting research that relates the use of clinically specific terminologies to the development and testing of quality measures, clinical practice guidelines, and patient safety measures*
- * *Pending agreement on government licensure of SNOMED RT, the AHRQ plans to use SNOMED RT to improve the clinical specificity of the NGC*

HHS Actions on PMRI

Recommendation 3d

3. HHS takes immediate action to ...

d. provide support for coordination of data elements among all standards selected for adoption under HIPAA

- * *HHS agencies/departments are providing support for the development of a meta-data registry under the auspices of ANSI-HISB. CMS is funding/leading this project*
- * *HHS has provided support for the Public Health Data Standards Consortium (PHDSC)*
- * *HHS and NCVHS have fostered the coordination of electronic signature standards among HL7, ASC X12N, NCPDP and ASTM within an ANSI-HISB forum*
- * *HHS (ASPE and CDC) is evaluating clinical terminologies for infectious disease surveillance*

HHS Actions on PMRI

Recommendation 3e

3. HHS takes immediate action ...

e. by improving drug data capture and use

- * *FDA is improving its ability to provide unique identifiers to active ingredients based on chemical structure. This should lead to a reduction in naming redundancy*
- * *FDA has begun to participate in the HL7 VOCAB TC and is working to coordinate the development of a drug knowledge base with the GCPR Project and other organizations*
- * *FDA has been working with many other countries to coordinate the development of the MedDRA terminology for regulating drugs and biologics*

HHS Actions on PMRI

Recommendation 3f

3. HHS takes immediate action to ...

f. support early adoption of PMRI standards within government programs to provide broadened feedback to the standards development community

- * *HHS is very willing to do this. At the moment the main opportunities to serve as early adopters are the GCPR Project and the National Electronic Disease Surveillance System (NEDSS) project within CDC*
- * *CDC is working with HL7 to develop standard messages for querying the immunization status of individuals. This initiative will also promote the mapping of immunization codes to CPT codes*
- * *CDC is coordinating with SDOs on new DEEDS versions*

HHS Actions on PMRI

Recommendation 4

4. HHS funds PMRI implementation guides, conformance testing and government licensure of clinically specific terminologies.

- * *HHS action on this recommendation will follow the selection and recommendation of specific PMRI standards by NCVHS*
- * *Agencies/departments within HHS have begun to consider which agencies are in the best position to provide this support and what funding mechanisms might be the most appropriate*

HHS Actions on PMRI

Recommendation 5

5. HHS supports demonstration of PMRI cost/benefits

- * *AHRQ is considering support/funding for research that would study the value, cost, and benefit of uniform terminologies in the areas of patient outcomes, quality of care, access, utilization, and resource efficiency*
- * *HHS/ASPE has begun to support literature reviews and analyses of the benefits and costs of health care and public health EDI*
- * *IHS has begun to research how the quality of data captured for patient care can influence better outcome measures, epidemiological trending, and cost control*

HHS Actions on PMRI

Recommendation 6

6. HHS supports research to improve clinical data capture

- * *CDC, NLM and AHRQ are considering funding research projects to improve clinical data capture*
- * *FDAs Medical Product Surveillance Network (MedSuN) will be collecting information on adverse events from specified healthcare facilities*

HHS Actions on PMRI

Recommendation 7

7. HHS accelerates the development of NHII with PMRI standards

- * *NCVHS draft proposals for the NHII include references to and integration with emerging PMRI standards*
- * *HHS support for the Public Health Data Standards Consortium (PHDSC) provides continued support for the adoption of emerging PMRI standards by federal, state and local health agencies/departments*
- * *AHRQ is prepared to support the adoption of emerging PMRI standards with their state partners in their Health Cost and Utilization Project (HCUP)*
- * *CDC is evaluating standards and coordination issues for NEDSS*

HHS Actions on PMRI

Recommendation 8

8. HHS support for US participation in international standards

- * *HHS will consider recommendations from AHRQ to increase U.S. government participation in the International Standards Organization (ISO) US TAG, the national health standards federations of Europe, Australia, and Asia, and the International Medical Informatics Association (IMIA)*

HHS Actions on PMRI

Recommendation 9

9. HHS incentives to promote equitable distribution of PMRI implementation costs

- * *HHS has no initiatives to directly address this recommendation yet*

HHS Actions on PMRI Recommendation 10

10. HHS to promote legislation to protect PMRI privacy and address diverse state laws

- * *HHS has promulgated the final HIPAA rules for privacy of healthcare information and has placed a high priority on providing the additional guidance to assist with implementation of these rules*



Selection of Specific PMRI Standards

Responses to NCVHS PMRI Questionnaire

- * HL7 Ver. 2.x Order Entry
- * HL7 Ver. 2.x Scheduling
- * HL7 Ver. 2.x Medical Record/Image Management
- * HL7 Ver. 2.x Patient Administration
- * HL7 Ver. 2.x Observation Reporting
- * HL7 Ver. 2.x Patient Administration Financial Management
- * HL7 Ver. 2.x Patient Care
- * IEEE P1073.1.2 Medical Device Communications
- * NCPDP SCRIPT Standard Version 3.1
- * OMG Health CORBAmed 2001-06-02 Person Id
- * OMG Health CORBAmed 2001-06-03 Lexicon Query
- * OMG Health CORBAmed 2001-06-04 Clin. Observ. Access

Other Responses:

HL7 Pre ballot standards:

- * HL7 Ver. 3 Message Format Standards

Message Format Enabler Standards:

- * ASTM E31.25 Draft Spec. for Healthcare XML DTDs
- * ASTM E31.27 Draft Spec. for Healthcare Doc. Formats
- * IEEE P1073.1.2 Medical Device Communications - Nomenclature and Base Standards
- * HL7 Ver. 3.x Clinical Document Architecture Framework

PMRI message format standards Evaluation Criteria

General Criteria

- * ANSI Accreditation
- * Market acceptance
- * Timely development procedures
- * Flexibility to respond
- * Implementation costs

Interoperability

- * Customization requirements
- * Implementation guide
- * Conformance testing
- * Relationships with other SDOs

Data Comparability

- * Code Sets supported
- * Reference accommodation
- * Licensure/maintenance
- * User guides

Data Quality

- * Data Quality
- * Accountability
- * Integrity

PMRI Questionnaire Results

- ✧ **Best effort given by SDOs**
- ✧ **Little or no verification of market acceptance claims**
- ✧ **Standards with greatest market acceptance tend to fall short of the NCVHS objectives for interoperability and comparability**
- ✧ **Attempt to objectively rate PMRI message format standards against NCVHS guiding principles confirmed market perceptions but considerable ambiguities remain**

Standard Selection Challenges

- * Tradeoffs between the realities that have driven current market acceptance and the potential for better interoperability and comparability with new versions
- * PMRI message format standards have done a very good job of addressing the needs within the acute care environment but have not done as well in addressing the ambulatory environment and other sites of care
- * How do we harmonize PMRI standards with the financial and administrative transactions and code sets already adopted as HIPAA standards?
- * How do we reconcile the potential for PMRI standards overlap?



Keep Our Balance

- ✧ **Help move the industry towards the standardization of PMRI...**
- ✧ **But proceed with great care**

Next Steps

- * **Vendor and user perspectives on PMRI message format standards - Oct 9th & 10th, 2001**
- * **Requests for SDO clarification/verification of some questionnaire responses**
- * **NCVHS Subcommittee discussions on draft recommendations - Dec 13th & 14th, 2001**
- * **NCVHS recommendations on PMRI message format standards - target - Feb 2002**

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NCVHS Recommendations for HIPAA PMRI Standards

For more information:

- * Current status of regulations:

<http://aspe.hhs.gov/admnsimp/final>

- * NCVHS recommendations, reports, & agendas:

www.NCVHS.hhs.gov

- * PHDSC: purpose, agendas and members

<http://www.cdc.gov/nchs/otheract/phdsc/phdsc.htm>



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