Consolidated Health Informatics (CHI)

National Committee on Vital and Health Statistics (NCVHS)

Subcommittee on Standards and Security

February 24, 2006

U.S. Department of Health and Human Services
Office of the National Coordinator
for Health Information Technology

Federal Health Architecture
ROADMAP FOR FEDERAL HEALTH

Agenda

- **CHI Standards Work Group**
  - Multimedia Final Report
  - Revised CHI Reports
  - Allergy Update
  - Disability Update
  - Implementation Guideline Templates

- **Collaboration Activities**
  - Registries
  - Office of the National Coordinator for Health Information Technology (ONC)

- **Next Steps**
  - Continue Standards Adoption Efforts
  - Continue Collaboration Efforts

Current Standards Work Groups

- **CHI Standards Messaging and Vocabulary Standards**

  - **Final Report:**
    - ❖ **Multimedia:** **Dr. Dick Swaja, ORNL and Dr. Bill Heetderks, NIH**

  - **Updated Reports**
    - ❖ **AHRQ reference additions: Michael Fitzmaurice, AHRQ**

  - **Recommendation Update**
    - ❖ **Allergy: Lenora Barnes and Marcia Insley, VA**
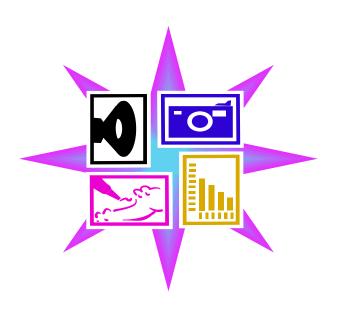
  - **Ongoing Effort**
    - ❖ **Disability: Dr. Laurence Desi, SSA and Jennie Harvell, ASPE**

CHI Multimedia Work Group

- **Membership**
  - **Representatives of Federal Agencies/ MITRE facilitator**
    - ❖ **NIH/NIBIB**
      - » **William Heetderks, Co-Chair**
      - » **Richard Swaja, Co-Chair**
    - ❖ **NIH/NLM**
    - ❖ **VA**
    - ❖ **DOD**
    - ❖ **FDA**
    - ❖ **CDC**
    - ❖ **CMS**

Multimedia Scope

- The primary application of this standard is for combining data from multiple media (e.g., images, photos, audios, videos, faxes, etc.) into patient records with the objective of ensuring interoperability and information exchange among federal agencies. This standard is useful throughout the federal healthcare system which employs a wide variety of medical records and patient information systems.

Multimedia Adoption Process

- **Recommendation Process**
  - Preliminary Report presented December 2003
  - Final Multimedia Standard Adoption Report Process 2006
    - ❖ Performed an initial comprehensive review of standards
    - ❖ Developed a list of general data types and subtypes used for patient records in the federal healthcare system.
    - ❖ Performed a comparison of each remaining standard against this checklist.
    - ❖ Selected the standard that encompasses a large portion of applicable media types and identified gaps existing in the current standard.
    - ❖ Addressed issues that need to be considered for completeness, and options to accommodate gaps in the recommended standard until they can be addressed.
    - ❖ Developed recommendations for a standard.
    - ❖ Input solicited from CHI Image Messaging Workgroup to ensure compatibility among recommendations (intra-agency and inter-agency).

Multimedia Gaps

- **Gaps with efforts being addressed**
  - Three-dimensional (3D) data – A DICOM proposal has been issued for registration and fusion of 3D data and should be approved.
  - Security – Some security-related issues are addressed in DICOM, but they need to be expanded to include (I) user identification and password, (2) information access restrictions, and (3) VPN issues.
  - Continued Implementation for audio, video and waveform

- **Obstacles**
  - Acceptance and implementation by all biomedical manufacturers will take time. Also,
  - Substantial time may be required to change ongoing non-compliant data collection systems. Some vendors of proprietary interface products are reluctant to adopt standards because of concerns about maintaining their market share.

Multimedia Recommendation

- **Recommendation**

  - Determine storage and exchange standards for Multimedia information

  - Develop 6 scenarios to support exchange of EHR Multimedia content
    - ❖ DICOM compatible
    - ❖ HL7 and DICOM compatible
    - ❖ DICOM/ HL7 to HL7/Non DICOM
    - ❖ HL7/Non DICOM to HL7/DICOM
    - ❖ DICOM to Non HL7/ Non-DICOM
    - ❖ DICOM/NonHL7 to DICOM/HL7

  - **DICOM Non Conditional Recommendation**

Updated CHI Recommendation Reports

- **Report Versioning**

- **AHRQ**

  - Updated references and wording in the following reports:
    - ❖ Anatomy and Physiology
    - ❖ Diagnosis and Problem Lists
    - ❖ Non-Laboratory Interventions and Procedures
    - ❖ Laboratory Results Contents
    - ❖ Nursing
    - ❖ Medications-Clinical Drugs
    - ❖ Medications- Active Ingredients
    - ❖ Medical Supplies and Devices
    - ❖ Drug Classification
    - ❖ Structure Product Labeling

- **AHRQ References Changes:**
  - **Reports:**
    - ❖ **Anatomy and Physiology**
    - ❖ **Diagnosis and Problem Lists**
    - ❖ **Non-Laboratory Interventions and Procedures**
    - ❖ **Laboratory Results Contents**
    - ❖ **Nursing**
  - **Acquisition / Executive Summary:** SNOMED CT® will be available from the National Library of Medicine's (NLM) Unified Medical Language System® (UMLS®) Metathesaurus® at no charge to anyone in the US who agrees to the license terms.
  - **Add Sentence:**

    This no-charge feature has been supported by HHS (NLM, NIH/OD, CDC, ASPE, AHRQ, CMS, FDA, IHS, SAMHSA, HRSA), DoD and VA.

- **AHRQ Reference Changes (con't)**

  – Report: Medications - Clinical Drugs

    ❖ **Ownership / Executive Summary:** As steward, NLM works in close collaboration with other governmental agencies (e.g. the **AHRQ**, VA, and the FDA, with the private sector (e.g. First Databank, Micromedex, Multum, Medispan) and other Nations (e.g. Britain, and Australia).

    ❖ **Recommendation (page 5):** RxNorm is a public domain system developed by the NLM in conjunction with the VA, the FDA, **and the AHRQ** and in consultation with HL7®.

  – Report: Medications - Active Ingredients

    ❖ **Ownership / Executive Summary:** The recommended standards are in the public domain, and are administered by the FDA **and supported by AHRQ**.

  – Report: Medical Devices and Supplies

    ❖ **Ownership / Executive Summary:** The GMDN is managed and its content maintained by an international Maintenance Agency with significant FDA representation **and AHRQ support.**

  Add: AHRQ reference

CHI Updates

- **Additional Recommended Changes (con't)**
  - Report: Drug Classification
  - Acquisition and Cost: Remove Phrase: Will be a near future release of the UMLS (planned July 04)

  - Report: Structured Product Labeling
  - Approvals and Accreditations: Remove outdated wording
  - Currently being balloted thru HL7 (Jan 2004) (Update April 04: Ballot passed)

CHI Allergy Work Group

- **Membership- representatives of federal agencies/ MITRE facilitator**
  - VA   - EPA   - NLM
  - DOD   - FDA   - CMS

- **Approach**
  - Utilize HL7 Allergy Information Segment and Reference Information Model
  - Review vocabulary requirements for exchanging allergy health information across the federal health enterprise (allergen type, allergen severity, allergen reaction, allergen name, allergen group)
  - Identified over 30 potential allergy vocabulary candidates
    - CHI Adopted Vocabularies, Proprietary and Non-proprietary
    - Strong Candidates: SNOMED, FDA SRS (UNII codes, SPL and RXNORM), EPA SRS, VA/DOD Non Drug Allergens, FALCPA and NDF-RT,
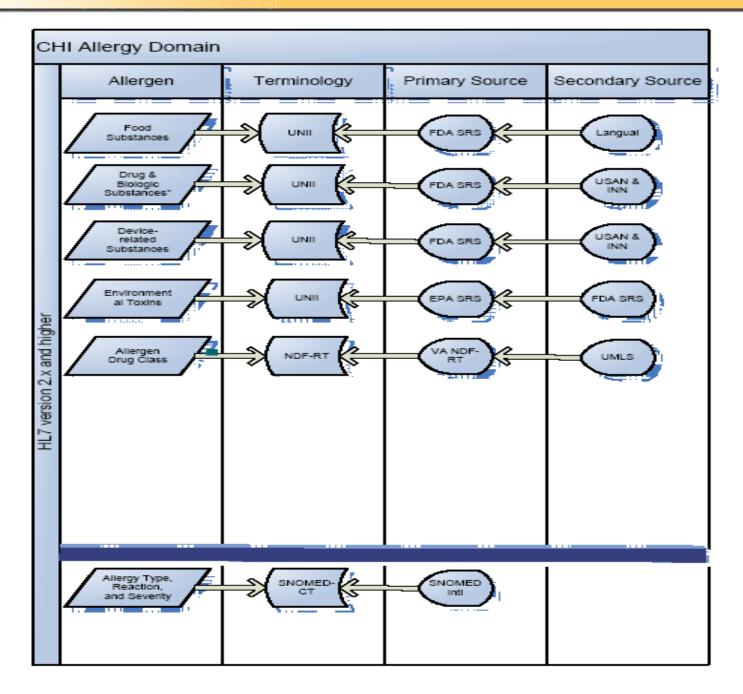
- **Recommendation Process**
  - Preliminary Recommendation Report
  - Collaborate with other allergy vocabulary development initiatives

CHI Allergy Vocabulary Standards

CHI Disability Work Group

- **Membership – representatives of federal agencies/ MITRE facilitator**
  - AHRQ   - CMS   - NLM   - VBA
  - ASPE   - DOD   - SSA   - RRB
  - CDC   - DOL   -VA

- **Approach**
  - **Identify agency-specific disability concepts**
    - ❖ Summarize federal vocabulary needs based on concepts and business processes (both current and future)
    - ❖ Synthesize into Use Cases from agencies to assess overall federal needs
  - **Will require harmonization of two or more existing standards**
    - ❖ LOINC, SNOMED, ICF and HL7 CDA

- **Recommendation Process**
  - **Attempt to match federal needs to existing vocabulary/ vocabularies and messaging standards**
  - **Will identify gaps in standards**
  - **Encourage standardization of disability concepts by describing and disseminating results and standardization methods**

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Implementation Guidelines

- **CHI Implementation Guideline Template**

  - Contract Language

    - Interest in developing standard contract language for agencies to use

      » Partner Agency Examples:

        - Working Template
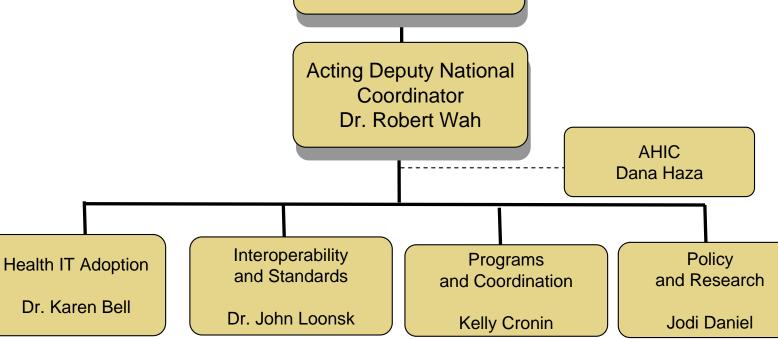
        - Additional Agency suggestion

- **Collaboration**

  - Registries

    - USHIK

    - CaDSR

    - NIST HCSL

Next Steps

- **Receive acceptance of Multimedia Standard Recommendation**

- **Continue CHI Work Group collaboration efforts**
  - Allergy
  - Disability
  - Supplies and Medical Devices
  - Registries

- **Coordinate with the Office of the National Coordinator for Health Information Technology (ONC) activities**

Questions?

U.S. Department of Health and Human Services
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for Health Information Technology

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