

Government Issue: CHI Lays the Groundwork for Federal Data Exchange

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The Consolidated Health Informatics initiative has given federal agencies a common language for exchanging health data. Now it is standard issue for new initiatives in agencies like the Department of Defense and the Department of Veterans Affairs.

With millions of health records to administer, federal government agencies could use a few good clinical standards as much as the next guy. The Consolidated Health Informatics (CHI) initiative has adopted a set of 20 to date, and they are beginning to show up in pilot programs, major systems upgrades, and requests for proposals throughout the government.

CHI was created in October 2001 as one of 24 e-government projects seeking to improve government service by using new technology for efficient exchange of information. Three federal departments lead the CHI initiative: Health and Human Services (HHS), Defense (DoD), and Veterans Affairs (VA). HHS is the managing partner for the government-wide project, which now encompasses 23 participating federal agencies.

CHI's goal is to establish messaging and vocabulary standards that enable federal agencies to exchange electronic health information efficiently and effectively. The motivation is the same as in the private sector: better care and lower administrative costs.

In 2002, CHI established a portfolio of 24 domains to focus teams on evaluating existing data and messaging standards. The following year, subject matter expert teams began to recommend standards for adoption. The first set was announced in March 2003, and the second set was announced in May 2004.¹ To date, consensus has been achieved on a set of 20 health information interoperability standards (see "[CHI Standards](#)" below).

Though CHI is charged with adopting standards for federal agencies only, it solicits input from private-sector groups to learn about their experiences and to stay closely aligned with standards in use. CHI does this by maintaining a close relationship with the National Committee on Vital and Health Statistics (NCVHS) in its capacity as a federal advisory committee to the secretary of HHS. CHI provided testimony for each subject area beginning in May 2003 and ending in January 2004.² NCVHS then provided input to the secretary of HHS concerning the advisability of adopting standards as recommended by the CHI Council.

DoD and VA Get on Board

Efforts within the government now focus on implementing CHI standards in a prospective manner. Federal agencies will incorporate the standards into new systems and major upgrades. Agencies are currently identifying pilot projects for standards implementation, and they are introducing standardized language into contracts, cooperative agreements, grants, and regulations as appropriate. DoD, for example, is establishing common enterprise-architecture contracting language that will be required in all future procurements of information management and information technology products and services. The agency intends to give greater consideration to those vendors that are compliant with CHI standards.

DoD and VA are also implementing the standards as part of a close partnership under the Federal Health Information Exchange and the HealthePeople initiatives. The agencies will exchange data and develop a common health information infrastructure and architecture comprised of standardized data, communications, security, and high-performance health

information systems. This effort, referred to as the Consolidated Health Data Repository, will ensure interoperability between DoD and VA and enable the exchange of patient data and results.

The VA and DoD have formally established data standardization programs to coordinate development, adoption, and implementation of standard terminology within their health enterprise software applications. The programs facilitate consistent sharing of patient healthcare data among government agencies and private organizations. In addition, the programs will ensure compliance with the approved CHI standards and will continue to actively support the CHI initiative.

Standards do not stand alone. In order to achieve interoperability, data must be exchanged consistently. Therefore, other key components requiring attention include common architectures, communication protocols, security mechanisms, and the applications themselves with interfaces, hardware, and software. There are challenges ahead but also many opportunities. CHI lays a cornerstone for these future efforts.

Notes

1. The reports are available on the e-Gov Web site at www.whitehouse.gov/omb/egov/gtob/health_informatics.htm.
2. The minutes may be found at www.ncvhs.hhs.gov.

CHI Standards	
Number	Standards Adopted March 2003
1	Laboratory Results Names: LOINC
2	Messaging Standards, includes scheduling, medical record/image management, patient administration, observation reporting, financial management, patient care: HL7
3	Messaging Standards, includes retail pharmacy transactions: NCPDP SCRIPT
4	Messaging Standards, connectivity: IEEE 1073
5	Messaging Standards, includes image information to workstations: DICOM
Standards Adopted May 2004	
6	Demographics: HL7
7	Lab Result Contents: SNOMED CT
8	Units: HL7
9	Immunizations: HL7
10	Medications: Federal drug terminologies, FDA standards, RxNorm, VA's National Drug File Reference Terminology
11	a. Interventions/Procedures, Lab Test Order Names: LOINC b. Interventions/Procedures, Non-Lab: SNOMED CT
12	a. Anatomy: SNOMED CT and NCI Thesaurus b. Physiology: No standard ready
13	Diagnosis/Problem Lists: SNOMED CT
14	Nursing: SNOMED CT
15	Financial/Payment: HIPAA transactions and code sets
16	Genes and Proteins: Human Genome Nomenclature (HUGN)
17	Clinical Encounters: HL7

18	Text-Based Reports: HL7 Clinical Document Architecture
19	Chemicals: EPA's substance registry system
20	Medical Devices and Supplies: No standard ready
21	History and Physical: No standard ready
22	Disability: No standard ready
23	Multimedia: No standard ready
24	Population Health: No standard ready

Note: Detailed information regarding the adopted standards is available in reports posted on the e-Gov Web site at www.whitehouse.gov/omb/egov/glob/health_informatics.htm.

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