



## **2009 HIE Guide Glossary**

### **From the HIMSS Guide to Participating in HIE**

**HIMSS HIE Guide Work Group  
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# Glossary

## A

### [Accredited Standards Committee \(ASC\) X12](#)

ASC develops electronic data interchange (EDI) standards and related documents for national and global markets. Includes many XML standards and is used heavily between providers and payors.

### [American Medical Association \(AMA\)](#)

A nonprofit professional association of physicians in the United States, including all medical specialties. Its purpose is to assist its members in providing the highest professional and ethical medical care to the citizens of the United States and to serve as an advocate for the advancement of the profession.

### [American National Standards Institute \(ANSI\)](#)

Founded in 1918, ANSI is an independent organization of trade associations, technical societies, professional groups, and consumer organizations. ANSI's primary goal is to maintain the enhancement of global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and promoting their integrity. It is formerly known as the United States of America Standards Institute (USASI or ASI), and previously as the American Standards Association (ASA). ANSI is the U.S. member body to ISO and IEC.

### [American Recovery and Reinvestment Act \(ARRA\)](#)

Signed in February 2009, it is bill to create jobs, restore economic growth, and strengthen America's middle class through measures that modernize the nation's infrastructure, enhance America's energy independence, expand educational opportunities, preserve and improve affordable healthcare, provide tax relief, and protect those in greatest need, and for other purposes. ARRA includes the HITECH Act which includes over \$20 billion to aid in the development of a robust IT infrastructure for healthcare and to assist providers and other entities in adopting and using health IT. [HIMSS also offers a summary of ARRA, from a health IT perspective.](#)

### [ASTM International](#)

Originally known as the American Society for Testing and Materials (ASTM) and formed in 1898, ASTM International is one of the largest voluntary standards development organizations in the world-a trusted source for technical standards for materials, products, systems, and services.

## C

### **Centralized HIE**

An approach to data sharing and the interchange of electronic information emphasizing full control over data sharing through a centralized repository. Components in a centralized architecture refer to the Central Data Repository (CDR) and the requestor. The CDR

authenticates the requester through a technological means, authorizes the transaction, and records it for audit and reporting purposes.

### **Certification Commission for Health Information Technology (CCHIT)**

The Certification Commission is a private nonprofit organization with the sole public mission of accelerating the adoption of robust, interoperable health information technology by creating a credible, efficient certification process.

### **Chronic Care Model**

A model for the care of patients with chronic disease first proposed by EH Wagner in 1998. The hypothesis of the model is that chronic disease requires an ongoing team approach to provision of care that involves specially designed delivery systems, supporting clinical information systems, a decision support system based on clinical and functional data about each patient, and an agreement with the patient to undertake certain self-management of his/her condition.

### **Chronic Disease**

A disease that is long-lasting or recurrent. The term chronic describes the course of the disease, or its rate of onset and development. A chronic course is distinguished from a recurrent course; recurrent diseases relapse repeatedly, with periods of remission in between.

### **Clinical Data Repository (CDR)**

A real-time database that consolidates data from a variety of clinical sources to present a unified view of a single patient. It is optimized to allow clinicians to retrieve data for a single patient rather than to identify a population of patients with common characteristics or to facilitate the management of a specific clinical department. Typical data types which are often found within a CDR include: clinical laboratory test results, patient demographics, pharmacy information, radiology reports and images, pathology reports, hospital admission, discharge and transfer dates, ICD-9/ICD-10 codes, discharge summaries, and progress notes.

### **Clinical Document Architecture (CDA)**

CDA is a document markup standard that specifies the structure and semantics of a clinical document (such as a discharge summary or progress note) for the purpose of exchange. A CDA document is a defined and complete information object that can include text, images, sounds, and other multimedia content. It can be transferred within a message and can exist independently, outside the transferring message.

### **Clinical Messaging Systems**

Any electronic system that allows the transfer of clinical data such as laboratory tests, radiology results, transcriptions, prescriptions, and clinical orders quickly from provider to provider.

### **Computerized Provider Order Entry (CPOE)**

A computer application that allows a physician's orders for diagnostic and treatment services (such as medications, laboratory, and other tests) to be entered electronically instead of being

recorded on order sheets or prescription pads. The computer compares the order against standards for dosing, checks for allergies or interactions with other medications, and warns the physician about potential problems.

### **Connecting for Health**

A public-private collaborative with representatives from more than 100 organizations across the spectrum of healthcare stakeholders. Its purpose is to catalyze the widespread changes necessary to realize the full benefits of health information technology, while protecting patient privacy and the security of personal health information.

### **Continuity of Care Document (CCD)**

An XML-based markup standard intended to specify the encoding, structure and semantics of a patient summary clinical document for exchange. In February of 2007, HL7 and ASTM announced that CCR and CDA were integrated to create the CCD. Subsequently, the U.S. Healthcare Information Technology Standards Panel endorsed the CCD as one of its standards.

### **Continuity of Care Record (CCR)**

A patient health summary standard expressed in XML. It is a way to create flexible documents that contain the most relevant and timely core clinical information about a patient, and to send these electronically from one care giver to another or to provide them directly to patients.

### **Current Procedural Terminology (CPT)**

A code set maintained by the American Medical Association through the CPT Editorial Panel. The CPT code set accurately describes medical, surgical, and diagnostic services and is designed to communicate uniform information about medical services and procedures among physicians, coders, patients, accreditation organizations, and payors for administrative, financial, and analytical purposes.

## *D*

### **Data Repository**

An independent platform that stores sanitized data retrieved from legacy, transaction-oriented systems for display and use in formats conducive to a specific purpose (research, outcomes analysis, etc.).

### **Department of Health & Human Services**

The United States government's principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves. ONC falls under HHS.

### **Digital Imaging and Communication in Medicine (DICOM)**

A standard for handling, storing, printing, and transmitting information in medical imaging. It includes a file format definition and a network communications protocol. The National Electrical Manufacturers Association (NEMA) holds the copyright to this standard. It was developed by the DICOM Standards Committee, whose members are also partly members of NEMA.

## *E*

### **Electronic Health Record (EHR)**

An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one healthcare organization.

### **Electronic Health Record System (EHR-S)**

An electronic system that holds health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one healthcare organization.

### **EHR-Lab Interoperability and Connectivity Specification (ELINCS)**

Initiated in February 2005, ELINCS was developed by the Oakland, Calif.-based California HealthCare Foundation, in collaboration with national healthcare information technology organizations, to facilitate lab results delivery directly from vendors to ambulatory EHRs.

### **Electronic Medical Record (EMR)**

An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one healthcare organization.

### **Enterprise Master Patient Index (EMPI)**

A database that contains a unique identifier for every patient in the enterprise. EMPI organizes patient IDs from external systems, allowing cross-referencing of patient records and access to them using their medical record numbers from external or legacy systems. Also known as MPI.

### **Extensible Markup Language (XML)**

Introduced in 1998, XML is an open standard data exchange language for describing and defining data elements on a Web page, business-to-business, clinical (etc.), documents.

## *F*

### **Federated HIE**

A decentralized approach to the coordinated sharing and interchanging of electronic information emphasizing partial, controlled sharing among autonomous databases.

## *H*

### **Health Information Exchange (HIE)**

The electronic movement of health-related information among organizations according to nationally recognized standards.

### **Health Information Organization (HIO)**

An organization that oversees and governs the exchange of health-related information among organizations according to nationally recognized standards.

### **Health Information Technology Standards Panel (HITSP)**

Created by ANSI in 2005 as part of efforts by the Office of the National Coordinator for Health Information Technology, HITSP is a cooperative partnership between the public and private sectors. The Panel was formed for the purpose of harmonizing and integrating standards that will meet clinical and business needs for sharing information among organizations and systems.

### **Health Insurance Portability and Accountability Act (HIPAA)**

Also known as the "Kennedy-Kassebaum Act (1996)," this U.S. law protects employees' health insurance coverage when they change or lose their jobs (Title I) and provides standards for patient health, administrative and financial data interchange (Title II). The latter also governs the privacy and security of health information records and transactions. HIPAA, developed by the Department of Health and Human Services, took effect in 2001 with compliance required in phases up to 2004.

### **Health Level Seven (HL7)**

An ANSI-accredited, all-volunteer, not-for-profit organization involved in development of international healthcare standards. HL7, a Standards Developing Organization, and its members provide a framework for the exchange, integration, sharing and retrieval of electronic health information. The standards, which support clinical practice and the management, delivery, and evaluation of health services, are the most commonly used in the world. Within the standard, the "7" comes from application layer 7 in the OSI model, which is the highest level where programs talk to each other.

### **HL7 Development Framework (HDF)**

The Development Framework Methodology Specification is a product of the HL7 Development Framework (HDF) project. The purpose of an HDF Project is to analyze, design, and document the processes, policies, and artifacts associated with development of HL7 standards. HDF is a replacement for and an extension to the HL7 Message Development Framework (MDF). The HDF differs from the MDF in terms of the following; scope of coverage, use of UML Notation, and Life cycle Management.

### **HL7 Reference Information Model (RIM)**

The Reference Information Model (RIM) is the cornerstone of the HL7 Version 3 development process and an essential part of the HL7 V3 development methodology. RIM expresses the data content needed in a specific clinical or administrative context and provides an explicit representation of the semantic and lexical connections that exist between the information carried in the fields of HL7 messages. The RIM is essential to increasing precision and reducing implementation costs.

### **HL7 v2.x**

The most widely implemented standard for healthcare information in the world, v2 defines a series of electronic messages to support administrative, logistical, financial as well as clinical processes. V2 standards that date back to 1987.

### **HL7 v3.0**

V3 uses an object-oriented development methodology and a Reference Information Model (RIM) to create messages. The messages are also based on an XML encoding syntax. Development of version 3 started around 1995, resulting in an initial standard publication in 2005.

### **Health Record Bank**

Health record banks centrally store copies of consumer's health records, which providers "deposit" into the accounts. Consumers control which providers can contribute information and which providers and individuals can view their records.

### **Healthcare Common Procedure Coding System (HCPCS)**

Commonly pronounced Hicks-Picks and based on the American Medical Association's CPT codes, HCPCS provide a standardized coding system for describing the specific items and services provided in the delivery of healthcare. Used for reporting to Medicare and Medicaid.

### **Health Information Technology for Economic and Clinical Health Act (HITECH)**

The HITECH Act was incorporated into the American Recovery and Reinvestment Act of 2009 budgeting roughly \$19 billion. It includes three sets of provisions to promote HIT adoption; The HITECH Act includes three sets of provisions to promote HIT adoption. First, it would codify the Office of the National Coordinator for Health Information Technology (ONCHIT) within the Department of Health and Human Services (HHS). Second, the HITECH Act would through a number of mechanisms provide financial incentives for HIT use among healthcare practitioners.

Finally, the HITECH Act includes a series of privacy and security provisions that would amend and expand the current HIPAA requirements.

### **Hybrid HIE**

A combination of the Federated and Centralized HIE models. For example, pharmacy transactions may occur using the federated model while lab data is shared through the centralized model.

### *I*

### **Integrating the Healthcare Enterprise (IHE)**

IHE is an initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information. IHE promotes the coordinated use of established standards such as DICOM and HL7 to address specific clinical need in support of optimal patient care. Systems developed in accordance with IHE communicate with one another better, are easier to implement, and enable care providers to use information more effectively.

### **IHE Integration Profiles**

IHE Integration Profiles organize and leverage the integration capabilities that can be achieved by coordinated implementation of communication standards. They do not replace conformance to standards, rather provide a more precise definition of how standards are implemented. They define a specific implementation of standards that are designed to meet identified clinical needs.

### **Infection Control Monitoring**

The act of using the policies and procedures published to minimize the risk of spreading infections, especially in hospitals and healthcare facilities.

### **Insurance Eligibility Checking**

The act of verifying if a patient has medical insurance. Older eligibility verification practices relied on making phone calls to payors or accessing multiple payor-specific Web sites, but many new hospital information systems have such technology built in.

### **Integrated Justice Information Systems (IJIS)**

Any computer network, system, or architecture that allows justice practitioners and agencies to electronically access and share information between systems and/or across jurisdictional lines. It also includes sharing information with traditionally non-justice agencies such as other governmental agencies, health and human services organizations, treatment service providers, schools and educational institutions, licensing authorities, and with the public.

### **Interface**

A boundary across which two independent systems meet and act on or communicate with each other.

### **Interface Engine**

Software that enables many disparate systems to pass information back and forth using a set of defined standards. Interface engines typically perform functions such as; store and forward of messages, message translation, message routing, management tools, and alerts and monitoring.

### **International Classification of Diseases (ICD)**

Published by the World Health Organization, these diagnostic codes are designed for the classification of morbidity and mortality information for statistical purposes, for the indexing of hospital records by disease and operations, and for data storage and retrieval.

### **Interoperability**

The ability of health information systems to work together within and across organizational boundaries in order to advance the effective delivery of healthcare for individuals and communities.

## *L*

### **Lightweight Directory Access Protocol (LDAP)**

Application protocol for querying and modifying directory services running over TCP/IP.

### **Logical Observation Identifiers Names and Codes (LOINC)**

A database and universal standard for identifying laboratory observations. It was developed and is maintained by the Regenstrief Institute, Inc., an internationally-recognized non-profit medical research organization, in 1994. LOINC was created in response to the demand for an electronic database for clinical care and management and is publicly available at no cost.

## *M*

### **Master Patient Index (MPI)**

*See EMPI*

### **Middleware**

Software that serves as an intermediary between systems software and an application, allowing them to exchange data.

## *N*

### **National Council for Prescription Drug Programs (NCPDP)**

Founded in 1977, a not-for-profit, ANSI-accredited, Standards Development Organization with over 1500 members representing virtually every sector of the pharmacy services industry, the NCPDP creates and promotes the transfer of data related to medications, supplies, and services within the healthcare system through the development of standards and industry guidance.

### **National e-Health Collaborative (NeHC)**

The National eHealth Collaborative (formerly AHIC Successor, Inc.) is a public-private partnership driving the development of a secure, interoperable, nationwide health information system. The National eHealth Collaborative was founded in 2008 to build on the accomplishments of the American Health Information Community (AHIC), a federal advisory committee initiated by Secretary of Health and Human Services Mike Leavitt in 2005.

### **Nationwide Health Information Network (NHIN)**

A network of networks, it is a set of harmonized standards-based specifications for the exchange of health information sharing between Nationwide Health Information Exchanges (NHIEs).

### **National Provider Identifier (NPI)**

The National Provider Identifier (NPI) is a Health Insurance Portability and Accountability Act (HIPAA) Administrative Simplification Standard. The NPI is a unique identification number for covered healthcare providers. Covered healthcare providers and all health plans and healthcare clearinghouses will use the NPIs in the administrative and financial transactions adopted under HIPAA. The NPI is a 10-position, intelligence-free numeric identifier (10-digit number).

## *O*

### **Office of the National Coordinator for Health Information Technology (ONC)**

The Office of the National Coordinator for Health Information Technology (ONC) provides counsel to the Secretary of HHS and Departmental leadership for the development and nationwide implementation of an interoperable health information technology infrastructure. The ONC also provides management of and logistical support for the American Health Information Community (AHIC).

### **Open source systems**

Term coined in March 1998 following the Web browser Mozilla release to describe software distributed in source under licenses guaranteeing anybody rights to freely use, modify, and redistribute, the code. The intent was to be able to sell the hackers' ways of doing software to industry and the mainstream by avoiding the negative connotations.

## *P*

### **Patient matching software**

Type of middleware that matches patients across independent systems. See EMPI.

### **Patient Privacy Rights Foundation**

Patient Privacy Rights is a 501(c) (3) non-profit organization located in Austin, TX. Founded in 2004 by Dr. Deborah Peel, Patient Privacy Rights is dedicated to ensuring Americans control all access to their health records.

### **Personal Health Record (PHR)**

An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.

### **Personal Health Record System (PHR-S)**

An electronic system that stores health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.

### **Physician Web Portals**

Middleware that allows a physician working from any location to log into their affiliated EMR.

### **Provider matching software**

Type of middleware that matches providers across independent systems.

### **Protected Health Information (PHI)**

PHI is any information held by a covered entity which concerns health status, provision of healthcare, or payment for healthcare that can be linked to an individual. This is interpreted to include an individual's medical record and payment history.

## *R*

### **Record Locator Service (RLS)**

A file of the locations of patient records, able to be queried only by authorized participants. In an HIE, it is a type of middleware that determines what records exist for a member and where they are located. A RLS will manage participating provider identities, maintain and publish a patient index, match patients using an algorithm, look up patient record locations (but not the records themselves), communicate securely and maintain an audit log, and manage patient consent to record sharing (under state laws and the new American Recovery and Reinvestment Act).

### **Regional Health Information Exchange (RHIO)**

A health information organization that brings together healthcare stakeholders within a defined geographic area and governs health information exchange among them for the purpose of improving health and care in that community. A RHIO is a type of HIO.

## **S**

### **Secure Messaging**

Server based approach to protect sensitive data when sent beyond the corporate borders and provides compliance with industry regulations such as HIPAA, GLBA and SOX.

### **Secure Sockets Layer (recently, Transport Layer Security) (SSL or TLS)**

A protocol developed by Netscape for transmitting private documents via the Internet. SSL uses a cryptographic system that uses two keys to encrypt data – a public key known to everyone and a private or secret key known only to the recipient of the message.

### **Service-oriented Architecture (SOA)**

SOA provides methods for systems development and integration where systems package functionality as interoperable services. A SOA infrastructure allows different applications to exchange data with one another. Service-orientation aims at a loose coupling of services with operating systems, programming languages and other technologies that underlie applications. SOA separates functions into distinct units, or services, which developers make accessible over a network in order that users can combine and reuse them in the production of applications.

### **Simple Object Access Protocol (SOAP)**

A lightweight XML-based messaging protocol used to encode the information in Web service request and response messages before sending them over a network. SOAP messages are independent of any operating system or protocol and may be transported using a variety of Internet protocols, including SMTP, MIME, and HTTP.

### **Standardized nomenclature for clinical drugs (RxNorm)**

RxNorm provides normalized names for clinical drugs and links its names to many of the drug vocabularies commonly used in pharmacy management and drug interaction software, including those of First Databank, Micromedex, MediSpan, Gold Standard Alchemy, and Multum. By providing links between these vocabularies, RxNorm can mediate messages between systems not using the same software and vocabulary.

### **Standards Development Organizations (SDO)**

Any entity whose primary activities are developing, coordinating, promulgating, revising, amending, reissuing, interpreting, or otherwise maintaining standards that address the interests of a wide base of users outside the standards development organization.

### **State-Led HIE**

An HIE model where the state defines the entire HIE including infrastructure, vision, oversight, and its use.

### **Systematized Nomenclature of Medicine – Clinical Terms (SNOMED-CT)**

A systematically organized computer processable collection of medical terminology covering most areas of clinical information such as diseases, findings, procedures, microorganisms, pharmaceuticals etc. It allows a consistent way to index, store, retrieve, and aggregate clinical data across specialties and sites of care. It also helps organizing the content of medical records, reducing the variability in the way data is captured, encoded and used for clinical care of patients and research.

*T*

### **Triple Data Encryption Standard (3DES)**

This is three-time successive application of DES designed to overcome the limitation of a 56-bit key without changing the encryption algorithm.

*U*

### **Uniform Resource Locator (URL)**

Uniform resource locator or universal resource locator; an addressing scheme used by World Wide Web browsers to locate resources on the Internet.