

Glossary of Selected Health Information Technology Terms

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Interoperability – is the ability of a system or a product to work with other systems or products without special effort on the part of the customer.

Informatics or Information Science -- the study of information. It is often, though not exclusively, studied as a branch of Computer Science and Information Technology (IT) and is related to database, ontology and software engineering. Informatics is primarily concerned with the structure, creation, management, storage, retrieval, dissemination and transfer of information. Informatics also includes studying the application of information in organizations, on its usage and the interaction between people, organizations and information systems.

EHR – Electronic Health Record – A real time patient health record with access to evidence-based decision support tools that can be used to aid clinicians in decision making. An EHR is a medical record or any other information relating to the past, present or future physical and mental health, or condition of a patient which resides in computers which capture, transmit, receive, store, retrieve, link, and manipulate multimedia data for the primary purpose of providing health care and health-related services. The EHR can also support the collection of data for uses other than clinical care, such as billing, quality management, outcome reporting, and public health disease surveillance and reporting. EHR records include patient demographics, progress notes, SOAP notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports.

EMR – Electronic Medical Record -- A computer-based patient medical record. An EMR facilitates access of patient data by clinical staff at any given location; accurate and complete claims processing by insurance companies; building automated checks for drug and allergy interactions; clinical notes; prescriptions; scheduling; sending to and viewing by labs; The term has become expanded to include systems which keep track of other relevant medical information. The practice management system is the medical office functions which support and surround the electronic medical record.

EHCR – 5 levels of an Electronic HealthCare Record (EHCR):

- The Automated Medical Record (AMR) is a paper-based record with some computer-generated documents.
- The Computerized Medical Record (CMR) makes the documents of level 1 electronically available.
- The Electronic Medical Record (EMR) restructures and optimizes the documents of the previous levels ensuring inter-operability of all documentation systems.
- The Electronic Patient Record (EPR) is a patient-centered record with information from multiple institutions.
- The Electronic Health Record (EHR) adds general health-related information to the EPR that is not necessarily related to a disease.

PHIT – Personal Health Information Technology -- PHIT enables the documentation of an individual's complete, lifelong health and medical history into a private, secure and standardized format that he or she owns and controls, but yet is accessible to legitimate providers day or night from any location

PHR -- Personal Health Record -- a collection of important information about your health or the health of someone you're caring for, such as a parent or a child, that you actively maintain and update. This may include:

- Personal identification, including name, birth date, and social security number
- People to contact in case of emergency
- Names, addresses, and phone numbers of your physician, dentist, and other specialists
- Health insurance information
- Living wills and advance directives
- Organ donor authorization
- A list and dates of significant illnesses and surgeries
- Current medications and dosages
- Immunizations and their dates
- Allergies
- Important events, dates, and hereditary conditions in your family history
- A recent physical examination
- Opinions of specialists
- Important tests results
- Eye and dental records
- Correspondence between you and your provider(s)
- Permission forms for release of information, operations, and other medical procedures

RHIO – A Regional Health Information Organization is a multi-stakeholder organization that enables the exchange and use of health information, in a secure manner, for the purpose of promoting the improvement of health quality, safety and efficiency. Officials from the U.S. Department of Health and Human Services (HHS) see RHIOs as the building blocks for the National Health Information Network (NHIN). When complete the NHIN will provide universal access to electronic health records.

HIE – Health Information Exchange is a term commonly used to describe a RHIO. The notion of HIE is the precursor to RHIO and is used interchangeably when discussing RHIOs.

LHII – Local Health Information Infrastructure is a term used synonymously with RHIO. LHII was originally termed by the Office of the National Coordinator of Health Information Technology (ONCHIT) to describe the regional efforts that will eventually be linked together to form NHII.(National Health Information Infrastructure).

eRx -- Electronic Prescribing – A type of computer technology whereby physicians use handheld or personal computer devices to review drug and formulary coverage and to transmit prescriptions to a printer or to a local pharmacy. E-prescribing software can be integrated into existing clinical information systems to allow physician access to patient specific information to screen for drug interactions and allergies.

CHI -- Consolidated Health Informatics Initiative – One of the 24 Presidential

eGovernment initiatives with the goal of adopting vocabulary and messaging standards to facilitate communication of clinical information across the federal health enterprise. CHI now falls under FHA.

FHA -- Federal Health Architecture – A collaborative body composed of several Federal departments and agencies, including the Department of Health and Human Services (HHS), the Department of Homeland Security (DHS), the Department of Veterans Affairs (VA), the Environmental Protection Agency (EPA), the United States Department of Agriculture (USDA), the Department of Defense (DOD), and the Department of Energy (DOE). FHA provides a framework for linking health business processes to technology solutions and standards, and for demonstrating how these solutions achieve improved health performance outcomes.

HIT -- Health Information Technology – The application of information processing involving both computer hardware and software that deals with the storage, retrieval, sharing, and use of health care information, data, and knowledge for communication and decision making.

NHIN – National Health Information Network -- describes the technologies, standards, laws, policies, programs and practices that enable health information to be shared among health decision makers, including consumers and patients, to promote improvements in health and healthcare. The development of a vision for the NHIN began more than a decade ago with publication of an Institute of Medicine report, “The Computer-Based Patient Record.” The path to a national network of healthcare information is through the successful establishment of RHIO.

NHII – National Health Information Infrastructure is often used synonymously with NHIN. NHII came before NHIN and is an acronym that encompasses all of the necessary components needed to make EHRs interoperable. NHIN, as the name suggests, refers to both the physical and national network needed for interoperability to occur.

GHIAB -- Governor's Health Information Infrastructure Advisory Board. On May 4, 2004, Florida Governor Jeb Bush created this Board to advise the Agency for Health Care Administration (AHCA) as it develops and implements a strategy for the adoption and use of EHRs. Since the appointment of Board members in June, the Board has actively sought to educate itself and the Agency through workshops and public forums. The Board has facilitated an intensive planning process and provided an opportunity for physicians, nurses, pharmacists, dentists, hospital administrators, health insurers, community groups, and many others to contribute their expertise. The First Report to the Governor describes the Board's initial findings and recommendations. The Advisory Board (see table below) consists of 12 members including representatives of the provider community, IT experts and health care policy experts.

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GHIMembers	
Carmen Aceves-Blumenthal	Pharmacist with McKesson Medication Management
Robert G. Brooks, MD	FSU College of Medicine
Ronald R. Burns, DO	Florida Osteopathic Medical Association
Raymond F. Caron, MD	Pediatrician
Brian O. Coleman, DMD	Omega Dental Group
Jeannette W. Ekh	Blue Cross Blue Shield of Florida
Peter D. Greaves	HCA, Inc.
Kevin S. Kearns	Health Choice Network
Rhonda M. Medows, MD	Physician
Linda E. Moody, PhD	University of South Florida
James S. "Sandy" Phillips	Jackson Health System
Robert G. Reese	South Broward Hospital District

FHIN -- The Florida Health Information Network -- An integrated information system that will connect Florida's healthcare stakeholders. This secure network will make available to authorized parties the medical information they need to make sound decisions about healthcare, regardless of where that information is stored, and where or when it is needed. Computerized "decision support" programs will automatically analyze all available health information and complement the data available through FHIN with clinical logic and practice guidelines. Decision support will assist both consumers and providers in making personal and clinical decisions based on sound medical science. Providers will be liberated from a practice model based on their capacity to memorize a multitude of potentially relevant facts and recall them all during the encounter; rather, they will focus more on the patient and the science and art of healing. The healthcare system supported by FHIN will be centered on the consumer, empowering the public to direct their healthcare using readily available comprehensive information about their health, and transparent information about the advisability of competing healthcare choices that they face. Public health officials will be empowered to detect, monitor and deal with emerging health threats more efficiently. The time it takes to bring medical discoveries from the laboratory bench to the hospital bedside will be slashed.

DSS – Decision Support System -- Computer tools or applications to assist physicians in clinical decisions by providing evidence-based knowledge in the context of patient specific data. Examples include drug interaction alerts at the time medication is prescribed and reminders for specific guideline-based interventions during the care of patients with chronic disease. Information is presented in a patient-centric view of individual care and also in a population or aggregate view to support population management and quality improvement.

Document Consumer – the vendor who receives information, views the document; imports and stores the document for later viewing; and imports specific patient information, such as test results or medication lists. (Senders are dubbed "Document Sources.")

CPOE -- Computerized Provider Order Entry– 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.

ANSI – American National Standards Institute - The U.S. standards organization that establishes procedures for the development and coordination of voluntary American National Standards.

Standards -- Though there are few standards for modern day EMR systems as a whole, there are many standards relating to specific aspects of EHRs/EMRs. These include:

- **ASTM CCR** -- American Society for Testing and Materials (Non profit), Continuity of Care Record - a patient health summary standard based upon XML, the CCR can be created, read and interpreted by various EHR or EMR systems, allowing easy interoperability between otherwise disparate entities.
- **ANSI X12** (also known as EDI – Electronic Data Interchange) – This is a standard format used for transmitting business data, developed by the Data Interchange Standards Association. The parties who exchange EDI transmissions are referred to as trading partners. Data that is transmitted often includes what would usually be contained in a typical business document or form.
- **CEN** – The European Committee for Standardization, founded in 1961 by the national standard bodies in the European Economic Community. It develops technical standards for many different business domains, including health care.
- **CEN EN13606** - A standard being developed by the CEN workgroup TC 251 on EHR Communications. The workgroup is focused on developing standard that include requirements on health information structure to support clinical and administrative procedures, technical methods to support interoperable systems as well as requirements regarding safety, security and quality.
- **DICOM** (Digital Imaging and Communications in Medicine) - a heavily used standard for representing and communicating radiology images and reporting
- **HL7** -- Health Level 7 – An ANSI standard for healthcare specific data exchange between computer applications. HL7 messages are used for interchange between hospital and physician record systems and between EMR systems and practice management systems; HL7 Clinical Document Architecture (CDA) documents are used to communicate documents such as physician notes and other material.

- ISO TC215 -- The International Organization for Standardization (ISO) is an international standard-setting body composed of representatives from national standards bodies. Founded on February 23, 1947, the organization produces world-wide industrial and commercial standards, including standardization in the field of health information and Health Information and Communications Technology (HICT) to achieve compatibility and interoperability between independent systems. Also, to ensure compatibility of data for comparative statistical purposes (e.g. classifications), and to reduce duplication of effort and redundancies. ISO is not an acronym; it comes from the Greek word isos, meaning "equal".

- Canada Health Infoway -- mandated to accelerate the development and adoption of electronic health information systems in Canada.

- openEHR - public specifications and implementations for EHR systems and communication, based on a complete separation of software and clinical models.

- openEHR Foundation -- a not for profit foundation supporting the open research, development, and implementation of EHRs. Its specifications are based on a combination of 15 years of research into EHRs and new paradigms designed to be the basis of a medico-legally sound, distributed, versioned EHR infrastructure. openEHR also develops and publishes EHR specifications and open source EHR implementations, which are currently being used in Australia and parts of Europe.

- HIMSS -- Healthcare Information and Management Systems Society -- is the healthcare industry's membership organization exclusively focused on providing leadership for the optimal use of healthcare information technology and management systems for the betterment of human health. Founded as a non profit in 1961 with offices in Chicago, Washington D.C., and other locations across the country, HIMSS represents approximately 17,000 individual members and some 275 member corporations that employ more than 1 million people. HIMSS frames and leads healthcare public policy and industry practices through its advocacy, educational and professional development initiatives designed to promote information and management systems' contributions to ensuring quality patient care.

- XML -- Extensible Markup Language is a general-purpose markup language for creating special-purpose markup languages, capable of describing many different kinds of data. Its primary purpose is to facilitate the sharing of data across different systems, particularly systems connected via the Internet. Languages based on XML (for example, Geography Markup Language (GML), Physical Markup Language (PML) are defined in a formal way, allowing programs to modify and validate documents in these languages without prior knowledge of their form.

CCR – Continuity of Care Record. A standard specification being developed jointly by ASTM International, the Massachusetts Medical Society (MMS), the Health Information Management and Systems Society (HIMSS), the American Academy of Family Physicians (AAFP), and the American Academy of Pediatrics. It is intended to foster and improve continuity of patient care, to reduce medical errors, and to assure at least a minimum standard of health information transportability when a patient is referred or transferred to, or is otherwise seen by, another provider. The origins of the CCR stem from a Massachusetts Department of Public Health, three-page, NCR paper-based Patient Care Referral Form that has been in widespread use for many years in Massachusetts, and from other minimal data sets both electronic and paper-based. The CCR is being developed and enhanced in response to the need to organize a set of basic patient information consisting of the most relevant and timely facts about a patient's condition. Briefly, these include diagnoses, recent procedures, allergies, medications, recent care provided, as well as recommendations for future care (care plan) and the reason for referral or transfer. The CCR will be created by a healthcare provider/clinician at the end of an encounter, or at the end of an episode of care, such as a hospital or rehabilitation stay. <http://www.massmed.org/pages/ccrfaq.asp>

ASTM International – American Society for Testing and Materials – was formed over a century ago, when a forward-thinking group of engineers and scientists got together to address frequent rail breaks in the burgeoning railroad industry. Total, standards developed at ASTM are the work of over 30,000 ASTM members. These technical experts represent producers, users, consumers, government and academia from over 100 countries. Participation in ASTM International is open to all with a material interest, anywhere in the world. <http://www.astm.org/>