Introduction

The following glossary was designed to provide novice health IT users, planners, and implementation team members with basic definitions of common terms they might encounter when reading whitepapers, vendor materials, and so forth. This glossary was not intended to be the definitive set of terms as defined by a broad cross-section of the health IT industry. However, we believe these definitions can help many clinicians, hospital administrators, IT staff, and allied health professionals share a common dialogue when discussing health IT.

Because this glossary remains a work in progress, we welcome feedback and suggestions for improvement. To submit comments or questions, please email the lead author, Gary Cravens, at gcavens@re Jessefri.org. Please share how you intend to use or have used the glossary, and let us know if there are terms that should be included in the next version.
**AAFP**

The American Academy of Family Physicians (AAFP) is the national association of family doctors; its mission is to improve the health of patients, families, and communities which includes the introduction and use of health information technology (HIT).  ([http://www.aafp.org/](http://www.aafp.org/))

**Abstraction**

A level of encoding of health data which involves reviewing the data and labeling the data based on an item from a terminology.

**Acceptance testing**

Acceptance testing is formal testing conducted to determine whether or not a system satisfies its acceptance criteria and to enable the customer to determine whether or not to accept the system.

**Accountability**

A security function in which users are responsible for their access to and use of health information. The users must have a right to know and a need to know the information they access.

**Action Period**

Time between learning sessions when teams work on improvements within their organization. The teams are supported by collaborative faculty/staff.

**ADE**

An adverse drug event (ADE) is an unexpected or dangerous reaction to a drug.

**ADT**

Admission-discharge-transfer (ADT), which is a component of a health information system (HIS) designed to maintain and update the hospital census.

**Agent**

Computer software designed to operate with a degree of autonomy from its programmer (e.g., an agent may be used to search the Internet for specified information).

**AHA**

The American Hospital Association (AHA) is the national organization representing all types of hospitals, health care networks, and their patients plus communities. It strives to ensure that its members’ perspectives and needs are addressed in national health policy development, legislative and regulatory debates, and judicial matters; this includes issues related to health information technology (HIT).  ([http://www.aha.org/](http://www.aha.org/))
AHIC
The American Health Information Community (AHIC) is a federal government advisory body chartered to provide recommendations to the Secretary of the U.S. Department of Health and Human Services (HHS) on how to accelerate the development and adoption of health information technology (HIT). (http://www.hhs.gov/healthit/community/background/)

AHIMA
The American Health Information Management Association (AHIMA) is a professional organization devoted to improving healthcare by advancing best practices and standards for health information management (HIM). (http://www.ahima.org/)

AHRQ
Agency for Healthcare Research and Quality (AHRQ) is the lead federal government agency charged with improving the quality, safety, efficiency, and effectiveness of health care for all Americans. As one of 12 agencies within the Department of Health and Human Services (HHS), AHRQ supports health services research that will improve the quality of health care and promote evidence-based decision making. (http://www.ahrq.gov/)

Alert Message
A computer-generated message generated when specific rules are met; e.g., entry of a critically abnormal laboratory test value generates a warning message to the care provider who ordered the test.

Alpha Testing
Acceptance testing performed by the customer in a controlled environment at the developer's site. The software is used by the customer in a setting approximating the target environment with the developer observing and recording errors and usage problems.

AMA
The American Medical Association (AMA) is an organization of physicians which works on the most important professional and public health issues including health information technology (HIT). (http://www.ama-assn.org/)

AMIA
The American Medical Informatics Association (AMIA) is an organization dedicated to the development and application of biomedical and health informatics in support of patient care, teaching, research, and health care administration. (http://www.amia.org/)
AMRS

Ambulatory medical record system (AMRS), which is a clinical information system that supports the functions of an outpatient clinic, generally including registration, appointment scheduling, order entry, reporting of results, clinical documentation, and billing.

ANA

The American Nurses Association (ANA) is a professional organization representing registered nurses with the goal of advancing the nursing profession by fostering high standards of nursing practice and lobbying Congress and regulatory agencies on health care issues affecting nurses and the public, including the use of information technology (IT) in nursing practice. ([http://www.nursingworld.org/](http://www.nursingworld.org/))

ANSI

The American National Standards Institute (ANSI) oversees the creation, promulgation, and use and thousands of standards and guidelines, in nearly every sector of the economy, in order to strengthen the U.S. market in the world economy and to improve the health and safety of consumers. ([http://www.ansi.org/](http://www.ansi.org/))

Antibiotic-Assistant Program

A computer program designed to help physicians in the proper ordering of antibiotics.

Arden Syntax

The Arden Syntax standard, which is maintained by HL7, is a coding scheme which provides a standard means for writing rules designed to relate specific patient situations to appropriate actions.

Asynchronous Communication

A mode of communication in which exchange of data does not require both parties to be actively involved at the same time. An example of this type of communication is e-mail.

ASP

Application Service Provider (ASP) is a type of client-server installation where a business hosts computer-based services for customers to access across a network, such as electronic health record (EHR) solutions accessed over the Internet.

ATM

Asynchronous transfer mode (ATM) is a network protocol for sending small, fixed-length packets of data over network connections.
Audit Trail

A record of all accesses and updates to health data, which is generally maintained in chronological order and is used to promoted accountability of access to the data. It is an information security feature in most information systems.

Authentication

A process for validating the identity of system users; this process is used to control access to the system.

Authorization

A process for limiting information system user access and activities to only the actions deemed appropriate for that user.

Bandwidth

This refers to the amount of data that can be transmitted over a communication channel in a given period of time.

Baseline Measurement

A measurement obtained prior to an intervention and used for comparison to post-intervention measurements.

Bayes’ Theorem

A theorem in probability theory that can be used in clinical diagnosis to determine the post-test probability of a disease based on the known prevalence of the disease and the sensitivity/specificity of the test.

Bayesian Diagnosis Program

A computer program which uses Bayes’ theorem in developing and refining a diagnosis.

BCMA

Bar Code Medication Administration (BCMA) refers to a system in which a laptop computer is attached to a medication cart and linked to a database via a wireless connection; if the bar code on the medication does not match the patient’s bar-coded wristband, the system alerts the person administering the medication.

Beta Testing

Acceptance testing performed by the customer in a live application of the software, at one or more end user sites, in an environment not controlled by the developer.
Bias

A bias is a difference in the outcome between groups, which is due to a factor other than those interventions under study.

Bibliographic Content

Information abstracted from the original information source.

Bibliographic Database

A collection of citations to the published literature, which is stored in a database.

Biometric Identifier

A physical attribute of a person that can be measured (e.g., pattern of the human retina) to help positively identify that person.

BioSense

BioSense is a national program that provides real-time biosurveillance and health situational awareness for public health through use of existing data from healthcare organizations. The BioSense vision is to provide state, local, and nationwide health situational awareness for suspect illnesses, cases of disease, and to provide a window into the community before, during, and after a health event using biosurveillance. The approach to achieve this vision includes supporting real-time delivery of healthcare data to public health from hospitals, laboratories, ambulatory settings and other health data sources and providing electronic “views,” analytics, and reports for national, state, and local public health, and contributing healthcare organizations. (http://www.cdc.gov/biosense/publichealth.htm)

Biosurveillance

Biosurveillance is the automated monitoring of information sources of potential value in detecting an emerging epidemic, whether naturally occurring or the result of bioterrorism. Information sources that can be monitored for early warning include purchases of nonprescription medication and symptoms reported during ambulatory care. Although these sources offer opportunities for early detection, they may also lead to high rates of false-positive reactions. A more definitive tool for biosurveillance is the electronic reporting of diagnostic results confirming the presence of a pathogen.

BISTI

Biomedical Information Science and Technology Initiative (BISTI) was launched by the National Institutes of Health (NIH) in 2000 to develop the optimal use of computer science, mathematics, and technology in addressing problems in biology and medicine. (http://www.bisti.nih.gov/)
**Bluetooth**

A wireless communication system designed to allow many personal devices such as computers and mobile phones to communicate over a relatively short-range.

**Bomb**

A trojan horse which attacks a computer system upon the occurrence of a specific logical event [logic bomb], the occurrence of a specific time-related logical event [time bomb], or is hidden in electronic mail or data and is triggered when read in a certain way [letter bomb].

**Bottom-Up Design**

An approach to design in which you start by designing the low-level details and then decide how these will be put together to create successively higher-level components, and ultimately the entire system.

**Bridge**

A device that links one network to another.

**Broadband Transmission**

Data transmission method in which multiple signals may be transmitted simultaneously.

**Browsing**

Scanning a database or the Internet for anything that seems of interest or for a particular item.

**Bug**

A fault in a program which causes the program to perform in an unintended or unanticipated manner.

**Business Process**

Any set of activities performed by a business that is initiated by an event, transforms information, materials or business commitments, and produces an output.

**Business Process Analysis**

Business process analysis focuses on studying, testing, and evaluating existing and running systems and processes with the aim of identifying the current system state as well as pointing out problems and bottlenecks, measuring key performance indicators, and suggesting improvements. One of the results acquired from the business process analysis is the business process diagram, which describes the organization structure and the performed processes, as well as the interactions between the processes.
Buttons

Graphical elements within a user interface that allow the user to perform a specific function when activated.

CAP

The College of American Pathologists (CAP) is a professional organization of pathologists which fosters and advocates excellence in the practice of pathology and laboratory medicine. It was responsible for developing the Systematized Nomenclature of Medicine (SNOMED). ([http://www.cap.org/](http://www.cap.org/))

Care Model (Chronic Care Model)

The Care Model identifies the essential elements of a health care system that encourages high-quality chronic disease care. These elements are the community, the health system, self-management support, delivery system design, decision support and clinical information systems. The model can be applied to a variety of chronic illnesses, health care settings and target populations. The bottom line is healthier patients, more satisfied providers, and cost savings. ([http://www.improvingchroniccare.org/](http://www.improvingchroniccare.org/))

Case-Based Reasoning

This is an approach to computer reasoning which uses a library of similar cases in reaching a conclusion rather than a set of rules.

CCHIT

The Certification Commission for Healthcare Information Technology (CCHIT) is a certification body for electronic health records (EHR) and their networks. ([http://www.cchit.org/](http://www.cchit.org/))

CCR

The Continuity of Care Record (CCR) is a core dataset of the most relevant clinical, demographic, and administrative data for a specific patient that is shared with another healthcare provider to support continuity of care. The intent of the CCR is to enhance patient safety, reduce medical errors, reduce costs, enhance efficiency of information exchange, and assure at least a minimum standard of health information transportability when a patient is referred, transferred, or is otherwise seen by, another practitioner.

CDA

The Clinical Document Architecture (CDA) is a Health Level 7 (HL7) standard for naming and structuring clinical documents.
**CDC**
The Centers for Disease Control and Prevention (CDC) is the U.S. government agency responsible for monitoring and reporting incidences and trends in infectious diseases and other public health issues. ([http://www.cdc.gov/](http://www.cdc.gov/))

**CDISC**
The Clinical Data Interchange Standards Consortium (CDISC) is an organization that has established worldwide industry standards to support electronic acquisition, exchange, submission, and archiving of clinical trials data and metadata for medical and biopharmaceutical product development. ([http://www.cdisc.org/](http://www.cdisc.org/))

**CDR**
A clinical data repository (CDR) is a clinical database organized for storage and retrieval of information on individual patients; it is generally used to support patient care.

**Certificate**
Coded authorization information to grant access to a system after the information is verified by a certification authority.

**Change Management**
Change management refers to the broad processes for managing organizational change. It encompasses planning, oversight or governance, project management, testing, and implementation. It involves managing the process of implementing major changes in information technology (IT), business processes, organizational structures, and job assignments to reduce the risks and costs of change, and to optimize its benefits. Change management is focused on the issues of managing the resistance and discomfort experienced by people in an organization when new processes or technology are introduced.

**Check Tag**
Terms used in Medical Subject Headings (MeSH) to identify certain aspects of medical studies (e.g., age, gender, human or nonhuman).

**Checklist Effect**
The improvement in decision making due to more complete and better structured data obtained when structured forms are used in patient data collection.

**CHI**
Consumer health informatics (CHI) refers to the discipline of health informatics that is specific to patients and other individuals as the primary users.
CHIN

Community Health Information Network (CHIN) is a computer network designed to exchange health information among participating organizations in a particular geographic area.

CHIT

The mission of the American Academy of Family Physicians (AAFP) Center for Health Information Technology (CHIT) is to promote and facilitate the adoption and optimal use of health information technology by AAFP members and other office-based clinicians, for the purposes of improving the quality and safety of medical care, and to increasing the efficiency of medical practice.  
(http://www.centerforhit.org/)

CHPPR

Center for Health Policy, Planning & Research (CHPPR) is a department of the University of New England College of Osteopathic Medicine (formerly Public Health Resource Group) specializing in health policy, program, and services planning through population need studies, best practice assessments, and the design and evaluation of health system improvement projects for the private and public sectors. It strives to improve the health status of populations through consulting and research at the practice, community, and system levels.  
(http://www.une.edu/com/chppr/)

CINAHL

Cumulative Index to Nursing and Allied Health Literature (CINAHL) refers to a non-National Library of Medicine (NLM) bibliographic database covering nursing and allied health literature.

CINAHL Subject Headings

Set of terms used for indexing the Cumulative Index to Nursing and Allied Health Literature (CINAHL), which is based on Medical Subject Headings (MeSH) with additional domain-specific terms added.

CIS

A clinical information system (CIS) is the component of a health information system (HIS) designed to support patient care. It can include physician order entry, results reporting, care planning, and clinical documentation among other features.

Client-Server

A network application architecture which separates the client (usually the graphical user interface (GUI)) from the server. Server software typically runs on robust computers dedicated exclusively to a specific application, such as an electronic health record (EHR). Client software typically runs on common PCs or workstations.
**Clinical Decision-Support System**

A computer system designed to assist care providers in making decisions about patient care.

**Clinical Expert System**

A computer system designed for clinical decision support in diagnosis and/or therapy; it is supposed to provide a level of expertise comparable to what a physician would provide.

**Clinical Guidelines**

Statements that have been systematically developed to assist care providers in making clinical decisions in specific clinical situations.

**Clinical Informatics**

Clinical informatics is the application of biomedical informatics methodologies for patient care applications.

**Clinical Messaging**

This is a service that allows patients to securely perform functions such as scheduling appointments, request prescription refills, request referrals to specialists, view lab results, complete registration and medical history forms, and pay bills. Since messages are encrypted and stored on a secure Web server protected by a firewall, and must enter a user ID and password to use the system, this service offers a higher degree of privacy than using e-mails for communication.

**Coded**

Data that has been placed in a standardized form and classified for computer processing.

**Coding Scheme**

A system for classifying entities into a finite set of identifiers, which in general can be either numeric or alphanumeric.

**Computer Check**

A procedure applied to verify entered data based on a mathematical relationship (e.g., the sum of the percentages of a white blood cell differential count must equal 100).

**Computer Program**

A set of instructions which tells the computer what operations to perform in what order.
**Computer System**

An integrated set of computer hardware and software which is operated to perform various tasks.

**Computer-Based Monitoring**

Monitoring of patient physiological data using computer systems.

**Computer-Based Patient Monitor**

A device for performing computer-based monitoring

**Confidentiality**

The ability of data owners to control access to and release of private information. The obligation not to disclose information; the right of a person to withhold information from others. Information in medical records, case registries, and other data files and bases is generally confidential.

**Consistency Check**

A process applied to entered data to check for internal inconsistencies (e.g., a diagnosis of prostate cancer in a female patient).

**Controlled Terminology**

A finite, well defined set of terms used to convey information without ambiguity. Examples include Logical Observation Identifiers Names and Codes (LOINC), the National Drug Code (NDC), and the Systematized Nomenclature of Medicine – Clinical Terms (SNOMED CT).

**Cookies**

Cookies are pieces of information generated by a Web server and stored in the user's computer, ready for future access. This information can then be used to identify the user when returning to the Web site, to personalize Web content, and suggest items of potential interest based on previous habits.

**CPOE**

Computerized provider order entry (CPOE) is a system which allows physicians and other authorized care providers to enter patient-specific orders for communication to other team members and other information systems (e.g., medication orders are transmitted to the pharmacy system).

**CPR**

Computerized patient record (CPR) is another term for electronic medical record (EMR).
**Critiquing System**

A system that evaluates and possibly suggests changes for plans entered by a care provider; sometimes known as a consulting system.

**Data Acquisition**

Inputting data into a computer via direct data entry (DDE) or data coming from a medical device.

**Data Compression**

A technique for reducing the amount of storage needed for data; this can occur either with or without the loss of information.

**Data Dictionary**

A set of data definitions and metadata stored in a database.

**Data Interchange Standards**

These are protocols for the exchange of data between computer systems.

**Data Mapping**

The process of matching one set of data elements to their closes equivalents in another set.

**Data Mining**

The process of analyzing or extracting data from a database to identify patterns or relationships which are not immediately obvious to human users.

**Database**

A database is a collection of stored data that is generally organized into fields, records, and files along with the associated description of the database which is known as the schema.

**DBMS**

A database management system (DBMS) is a set of programs that manages access, updates, and storage of databases.

**DDE**

Direct data entry (DDE) is the direct entry of data, for example by a user typing information onto a computer screen that is immediately transmitted to the organization’s computer.
**Decision Support**

Methods used to have information available to enable patients and providers to make informed choices about optimal care. This includes the use of evidence from the medical and health services literature, education of providers and the interactions between specialists and primary care providers.

**Decryption**

The process of converting encrypted information back into its original form.

**Delivery System Design**

How care is provided to patients including the types and roles of the provider team, and the types of appointments and follow-up techniques used by the practice to ensure good care. The most commonly used method is a planned chronic care visit. Innovations include group visits.

**DES**

Data encryption standard (DES) is a method, widely used, for secure information storage and transmission which uses a private key for encryption and the same key for decryption.

**DICOM**

Digital imaging and communications in medicine (DICOM) is a standard, originally developed by the National Equipment Manufacturers Association, for the exchange of medical images and data associated with the images (e.g., patient identification and type of imaging study). ([http://medical.nema.org/](http://medical.nema.org/))

**Disease Surveillance System**

A disease surveillance system is a system, frequently electronic, for the ongoing systematic collection and analysis of data and the provision of information which leads to action being taken to prevent and control a disease, usually one of an infectious nature.

**Distributed Computing**

A type of computing in which data and programs are shared across different computers on a network.

**DNS**

The domain name system (DNS) is the name management system used to convert computer names to Internet protocol (IP) addresses.

**DRG**

Diagnosis-related group (DRG) is one of about 500 categories used to fix payment for Medicare patients; each group is based on criteria such as diagnosis, age, types of services required, and surgical procedures among others.
**DSL**

A digital subscriber line (DSL) is a digital telephone service which allows high-speed communication using standard telephone wiring.

**EBM Database**

An evidence-based medicine (EBM) database is a database of clinical evidence to support medical decision-making based on the results of controlled clinical trials.

**EDI**

Electronic Data Interchange (EDI) refers to the direct exchange between organizations of information in a structured format, directly from one organization’s computer system to the other organization’s computer system.

**EDIFACT**

Electronic Data Interchange For Administration, Commerce, and Transport (EDIFACT) is an international standard for Electronic Data Interchange (EDI); it is coordinated through the United Nations/Economic Commission for Europe.

**EHNAC**

The Electronic Healthcare Network Accreditation Commission (EHNAC) is an independent accreditation authority for organizations engaged in electronic healthcare transactions and management of healthcare information; it tests for consistency with Health Insurance Portability and Accountability Act (HIPAA) requirements. ([http://www.ehnac.org/](http://www.ehnac.org/))

**EHR**

An electronic health record (EHR) is a computer-accessible, interoperable resource of clinical and administrative information pertinent to the health of an individual. Information drawn from multiple clinical and administrative sources is used primarily by a broad spectrum of clinical personnel involved in the individual’s care, enabling them to deliver and coordinate care and promote wellness.

**EMR**

An electronic medical record (EMR) is a computer-accessible resource of medical and administrative information available on an individual collected from and accessible by providers involved in the individual’s care within a single care setting.
**Electronic Medical Record System**

A system which adds information management tools to a collection of electronic medical records (EMR); these tools provide such features as clinical reminders, tools for data analysis, and links to external health knowledge sources.

**e-Mail**

Electronic mail (e-mail) is a messaging system that provides users with personal mail-boxes on a computer network from which messages can be sent and received.

**eMAR**

Electronic Medication Administration Record (eMAR) refers to a point-of-care process which monitors the bedside administration of medications using bar code reading technology. It minimizes the opportunity for human error in the administration of medications.

**Encryption**

The process of converting information into a form which is meaningless to anyone who does not have the information needed to decrypt the information back to its original form.

**e-Prescribing**

Electronic prescribing (e-prescribing) refers to the use of an automated data entry system to generate prescriptions, instead of using paper for the prescriptions. Potential benefits include improved patient safety, better formulary adherence, automatic communication of prescriptions to pharmacies, and improved patient satisfaction.

**Expert System**

This is a computer program which contains expert knowledge about a particular problem domain which is used to solve problems at the level of a human expert.

**FAQ**

Frequently asked questions (FAQ) are lists of questions with their associated answers available on the Internet which have been compiled to answer common questions that users have.

**Fault tolerance**

Fault tolerance is the ability of a system or component to continue normal operation despite the presence of hardware or software faults.
Federal Information Processing Standards

Standards published by U.S. Department of Commerce, National Institute of Standards and Technology, formerly National Bureau of Standards. These standards are intended to be binding only upon federal agencies.

FHA

The Federal Health Architecture (FHA) supports federal activities in the development and adoption of health information technology (HIT). [http://www.hhs.gov/fedhealtharch/index.html/]

Field

The smallest named unit of data in a database; fields are grouped together to form records.

File

A file is a collection of similar records in a database.

File Server

A computer that serves to store shared and private data files.

Firewall

A firewall is a security system that prevents an organization’s computers from communicating directly with computers external to the organization’s network. It is intended to protect the organization’s network from external threats.

Flowchart

A flowchart is a graphical representation in which symbols are used to represent such things as operations, data, flow direction, and equipment, for the definition, analysis, or solution of a problem.

FTP

The File Transfer Protocol (FTP) is a protocol used for copying files to and from remote computers.

Full-Text Database

A bibliographic database that contains the complete text of articles, books, and other resources.

Gateway

A computer connected to multiple networks and that can relay messages between networks using different communication protocols.
**Goal**

The expected results of an improvement process that are written, measurable, and time-sensitive statements.

**Granularity**

Granularity is the level of detail used in a search strategy, which can range from very general concepts to very specific topics.

**Gray Scale**

This is a method for representing intensity in a black-and-white image.

**Groupware**

This is a computer application which allows a group of individuals to communicate and share work over a computer network even though they may be geographically separated.

**GUI**

A Graphical User Interface (GUI) is a presentation method that represents files and other objects as icons, menus, and dialog boxes on the screen.

**Hardware**

The physical components that comprise a computer system.

**HCI**

Human-computer interaction (HCI) is a field which studies and attempts to optimize how humans interact with computers.

**Health Information**

Any information, whether oral or recorded in any form or medium, that does both of the following: (1) is created or received by a health care provider, health care plan, public health authority, employer, life insurer, school or university or health care clearinghouse and (2) relates to the physical or mental health or condition of an individual, the provision of health care to an individual or payment for the provision of health care to an individual.

**Health Information Infrastructure**

The entire set of resources used in a health information systems (HIS); these resources include policies, databases, and networks used for collecting, storing, and communicating health data.
**HealtheVet**

HealtheVet is the Veterans Administration’s next generation of the Veterans Health Information Systems and Technology Architecture (VistA) which will provide enhanced capabilities with flexibility to adapt to health care and technology innovations.

**Heuristic**

A heuristic is a rule of thumb or mental “trick” used when it is not possible to apply a definite rule to a problem.

**HHS**

The U.S. Department of Health and Human Services (HHS) is 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. The department includes more than 300 programs, covering a wide spectrum of activities. Some highlights include health and social science research, preventing disease including immunization services, assuring food and drug safety, Medicare and Medicaid, health information technology (HIT), financial assistance and services for low-income families, improving maternal and infant health, Head Start, faith-based and community initiatives, preventing child abuse and domestic violence, substance abuse treatment and prevention, services for older Americans including home-delivered meals, comprehensive health services for Native Americans, and medical preparedness for emergencies including potential terrorism. ([http://www.hhs.gov/](http://www.hhs.gov/))

**HIE**

Health information exchange (HIE) refers to the transfer of health information electronically across organizations. It is the electronic movement of any and all health-related data according to an agreed-upon set of interoperability standards, processes and activities across non-affiliated organizations in a manner that protects the privacy and security of that data; and the entity that organizes and takes responsibility for the process.

**HIM**

Health information management (HIM) is the management of health information in hospitals and other healthcare organizations with the goal of providing quality healthcare to patients.

**HIMSS**

The Healthcare Information and Management Systems Society (HIMSS) is the healthcare industry’s membership organization focused on providing leadership for the optimal use of health information technology (HIT) and management systems for the improvement of healthcare. ([http://www.himss.org/ASP/index.asp/](http://www.himss.org/ASP/index.asp/))
**HIPAA**

The Health Insurance Portability and Accountability Act (HIPAA) was enacted by the U.S. Congress in 1996. Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, the Administrative Simplification provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers. These provisions also address the security and privacy of health data. The standards are meant to improve the efficiency and effectiveness of the nation's health care system by encouraging the widespread use of electronic data interchange in health care. ([http://www.hhs.gov/ocr/hipaa/](http://www.hhs.gov/ocr/hipaa/))

**HIS**

A health information system (HIS) is a system used in a health care organization to facilitate communication, document interventions, integrate information, perform record keeping, and perform other functions needed to support the organization.

**HISPC**

The Health Information Security and Privacy Collaboration (HISPC) was formed from a contract originally awarded to the Research Triangle Institute by the U.S. Department of Health and Human Services (HHS) to work with the Office of the National Coordinator for Health Information Technology (ONC) and the Agency for Healthcare Research and Quality (AHRQ) to identify best practices and develop solutions to overcome variances in laws and business practices that prevent the nationwide sharing of electronic health information. The goal of HISPC is to assess and provide solutions that address variations in organization-level policies and state laws that affect privacy and security practices, including those related to the Health Insurance Portability and Accountability Act (HIPAA), and which may pose challenges to the interoperability of health information exchange.

**HIT**

Health information technology (HIT) allows for the management of health information and its secure exchange among stakeholders using computers and networking technologies.

**HITSP**

The Health Information Technology Standards Panel (HITSP) is part of the American National Standards Institute (ANSI) and is devoted to achieving widely accepted and readily-implemented standards that will enable widespread interoperability among health information technology (HIT), especially related to the Nationwide Health Information Network (NHIN). ([http://www.ansi.org/standards_activities/standards_boards_panels/hisb/hitsp.aspx?menuid=3/](http://www.ansi.org/standards_activities/standards_boards_panels/hisb/hitsp.aspx?menuid=3/))
**HL7**

Health Level 7 (HL7) is an international standard for data exchange between computer systems in healthcare. It provides interoperability between different systems. ([http://www.hl7.org/](http://www.hl7.org/))

**Home Page**

A document on the World Wide Web (WWW) which serves as the point of welcome for a group of Web pages associated with an individual or organization.

**HON**

Health on the Net (HON) is a private organization created to establish ethical standards for health information published on the Web. ([http://www.hon.ch/](http://www.hon.ch/))

**HTML**

Hyper Text Markup Language (HTML) is the basic, human readable text programming language used to develop Web sites.

**HTTP**

HyperText Transfer Protocol (HTTP) is the client-server protocol used to access information on the Web.

**Hyperlink**

A connection between hypertext documents which allows a user to trace concepts appearing in one document to other documents.

**Hypertext**

This is a method of presenting document on the World Wide Web (WWW) which allows them to be richly interconnected with each other; it allows a user to follow concepts in a “non-linear” way rather than having to read a given document from beginning to end.

**Icon**

An icon is a pictorial representation of an object or function used in a graphical interface.

**IEEE**

The Institute of Electrical and Electronics Engineers (IEEE) is an international organization which has helped developed many of the world’s standards in computers and telecommunications. ([http://www.ieee.org/](http://www.ieee.org/))
IHI

Institute for Healthcare Improvement (IHI) is a not-for-profit organization dedicated to improving health care throughout the world. (http://www.ihi.org/ihi/)

IHIE

The Indiana Health Information Exchange (IHIE) was formed by a unique collaboration of Indiana health care institutions to help improve patient safety and efficiency; in partnership with the Regenstrief Institute, it runs one of the nation’s most respected clinical messaging services. (http://www.ihie.com/)

IHTSDO

The International Health Terminology Standards Development Organization (IHTSDO) is a Danish organization which has acquired the rights to the Systematized Nomenclature of Medicine (SNOMED) from the College of American Pathologists (CAP); it also is working on acquiring other terminologies and related standards. (http://www.ihtsdo.org/)

IMIA

The International Medical Informatics Association (IMIA) is an organization devoted to the promotion of informatics in health care and biomedical research and also the advancement of international cooperation in these areas. (http://www.imia.org/)

Implementation

This is the process of translating a design into hardware components, software components, or both.

Informatics

Informatics is the domain which focuses on the systematic application of information systems and technology to store, organize, manage, communicate, process, manipulate, analyze, display, and utilize information; it aims to improve access, quality, and utilization of information.

Information Management

Information management describes the measures required for the effective collection, storage, access, use, and disposal of information to support business processes. The core of these measures is the management of the definition, ownership, sensitivity, quality and accessibility of information.

Information Security

Information security refers to the policies, practices and procedures that are applied to information systems to ensure that data and information that is held within or communicated along those systems is not vulnerable to inappropriate or unauthorized use, access or modification and that the networks that are used to store, process or transmit information are kept operational and secure against unauthorized
access. This means the protection of information against unauthorized disclosure, transfer, modification or destruction, whether accidental or intentional; a system of administrative policies and procedures for identifying, controlling and protecting information.

**Interface Engine**

An interface engine is a system for managing and streamlining the exchange of messages between hospital applications, databases, and external health information technology (HIT) systems.

**Internet**

The Internet is a worldwide collection of gateways and networks communicating with each other and providing services such as email and Web access.

**Interoperability**

Interoperability is the ability of different information technology (IT) systems and software applications to communicate, to exchange data accurately, effectively and consistently, and to use the information that has been exchanged.

**Intranet**

An intranet is a private network which allows access only by individuals inside of the network using the look and feel of the Internet. The Internet, by comparison, allows any user to access without verification of the identity of the user.

**IP**

The Internet Protocol (IP) is that part of the Transmission Control Protocol/Internet Protocol (TCP/IP) that deals with the creation and routing of data packets on the network and their assembly back into the original message.

**IP Address**

The Internet (or IP) address is a number that uniquely identifies a device attached to the Internet. The number is frequently listed in the format a.b.c.d where a represents the region, b the local area, c the local network, and d the specific device.

**IR**

Information retrieval (IR) consists of methods that efficiently search and obtain data from very large collections of data.
**ISDN**

The Integrated Services Digital Network (ISDN) is an international communications standard for sending information over telephone lines.

**ISM**

The Information Source Map (ISM), which is one component of the Unified Medical Language System (UMLS), is a database of available databases which has been indexed by terms of the Metathesaurus.

**ISP**

An Internet Service Provider (ISP) is a commercial company that supplies Internet connectivity for a fee-for-service.

**IT**

Information technology (IT) deals with the use of computers and communications networks to collect, convert, store, protect, process, transmit and retrieve information.

**JCAHO**

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO), recently renamed the Joint Commission, has the mission to improve the safety and quality of care provided to the public through the provision of health care accreditation and related services that support performance improvement in health care organizations; this includes issues related to health information technology (HIT).

([http://www.jointcommission.org/](http://www.jointcommission.org/))

**Key Field**

The field in a database record that uniquely identifies the record. This is also commonly known as a primary key field.

**Keyboard**

A set of typewriter-like keys that enables you to enter data into a computer.

**Knowledge Base**

A knowledge base is a collection of facts, models, and heuristics that can be used to assist with problem solving.

**Knowledge Management**

This refers to the capture, organization, and storage of the knowledge and experiences of workers and groups and then making this information available to others in the organization.
Knowledge Representation

Mapping the knowledge of an object or process into a formalized system which can be used for automated reasoning.

LAN

A local area network (LAN) is a network connecting multiple nodes that are generally all owned by a single organization.

LIS

A laboratory information system (LIS) is a system which receives, processes, stores, and displays information generated by medical laboratory procedures.

Listserve

Electronic mailing lists that allow for widespread distribution of information to many users.

LOINC

Logical Observation Identifiers Names and Codes (LOINC) provides structured universal code names and identifiers for medical terminology; this is typically for laboratory and clinical observations. ([http://www.regenstrief.org/loinc/](http://www.regenstrief.org/loinc/))

Markup Language

This is a document specification language which labels the document’s components.

Measure

A measure corresponds to a specific attribute of an entity or process. Key measures should be focused, clear, and reportable. A measure is used to track the delivery of proven interventions to patients and to monitor progress over time.

Medical Record

The document, either paper-based or computer-based, which records the data gathered by the health care system during a patient’s encounters with the system.

MEDLARS

The Medical Literature Analysis and Retrieval System (MEDLARS) was the initial electronic version of Index Medicus developed by the National Library of Medicine (NLM).
**MEDLINE**

Medical Literature Analysis and Retrieval System (MEDLARS) Online (MEDLINE) is the National Library of Medicine’s electronic catalog of the biomedical literature, which contains information abstracted from journal articles.

**MeSH**

The Medical Subject Headings (MeSH) is a de facto standard for biomedical indexing. It was developed by the National Library of Medicine (NLM) and contains approximately 18,000 terms used to identify subject content.

**MeSH Subheading**

A subheading is a qualifier term that can be added to a Medical Subject Headings (MeSH) term to further specify the meaning.

**Metadata**

Metadata describes the format, structure, and meaning of a collection of data; it essentially is data about the data.

**Metadata Registry**

This is a central location in an organization where metadata definitions are stored and maintained in a controlled method. This is also commonly known as a data dictionary.

**Metathesaurus**

This contains links between terms in Medical Subject Headings (MeSH) and various other controlled vocabularies. It forms a component of the Unified Medical Language System (UMLS).

**MHIC**

The Maine Health Information Center (MHIC) is an independent, nonprofit organization incorporated in 1976 and governed by a Board of Directors representing a broad range of organizations and individuals. The Board is dedicated to the belief that Maine and other Northern New England states benefits from a strong, stable source of health data. ([http://www.mhic.org/](http://www.mhic.org/))

**MHINT**

The Maine Health Information Network Technology (MHINT) project is a statewide system being designed to: improve patient safety and the quality of clinical care by providing clinicians with timely, accurate and secure patient-specific information at point-of-care, create a virtual electronic health record of critical information accessible to all participating clinicians and consumers, and assure that clinicians caring for patients who may not have a single-source medical record, e.g. uninsured or
underinsured patients who may not have a primary care provider, will have access to clinical information necessary for appropriate treatment planning. When completed, Maine will be one of the first states in the nation to develop such a coordinated statewide electronic clinical information sharing system. The MHINT system will also dovetail with the emerging national health information system infrastructure. ([http://www.mhint.org/](http://www.mhint.org/))

**MIS**

A management information system (MIS) is a system used to support managers and decision makers in the management of organizational functions at the managerial level.

**Mobile Device**

A mobile device is a pocket-sized computing device, typically comprising a small visual display screen for user output and a miniature keyboard to touch screen for user input. Typical mobile devices include cordless phone, Bluetooth headset, handheld game console, personal digital assistant (PDA), digital video camera (camcorder), and pager.

**Model for Improvement**

An approach or tool for process improvement which helps teams accelerate the adoption of proven and effective changes.

**Modem**

This term, which stands for modulator-demodulator, refers to a device for converting digital signals into tones which can be transmitted over telephone wire.

**MPI**

The Master Patient Index (MPI) is the section of a health information system (HIS) used to uniquely identify a patient in the system. It generally contains basic demographic data and basic encounter data in addition to the identification data.

**MRI**

The Medical Records Institute (MRI) is an international forum for sharing knowledge about medical records, e-health, mobile health, and related applications. ([http://www.medrecinst.com/](http://www.medrecinst.com/))

**Multimedia**

Computer applications which include data in multiple forms, such as including still images, video images, and sound in addition to text.
MUMPS

The Massachusetts General Hospital Utility Multi-Programming System (MUMPS) is a specialized programming language developed for medical applications. This is also commonly known as M.

NAHIT

The National Alliance for Health Information Technology (NAHIT) is an organization focused on how health information technology (HIT) can improve healthcare outcomes; it is a forum in which senior healthcare leaders can discuss emerging issues and work collaboratively. (http://www.nahit.org/)

NAPHIT

The National Association for Public Health Information Technology (NAPHIT) is an organization for supporting leaders in public health information technology by providing venues for the exchange of ideas and experiences. (http://www.naphit.org/)

National Guidelines Clearinghouse

This is a public resource which collects and distributes evidence-based clinical guidelines under the coordination of the Agency for Healthcare Research and Quality (AHRQ). (http://www.guideline.gov/)

National Resource Center for Health Information Technology

The National Resource Center for Health Information Technology, a central national source of information and assistance to help our nation embrace the power and efficiency of health information technology (HIT), provides direct technical assistance and consulting services to Agency for Healthcare Research and Quality (AHRQ) projects involved in developing, testing, and using HIT applications. Its primary focus is on addressing challenges to HIT implementation in rural and small community settings. As the central repository for lessons learned from AHRQ’s HIT initiative, the National Resource Center can encourage adoption of HIT by disseminating the latest tools, best practices, and research results from this unique real-world laboratory. (http://www.ahrq.gov/)

Natural Language

A language used by human beings for verbal communication, such as English, French, and Chinese.

NCPDP

The National Council for Prescription Drug Programs (NCPDP) creates and promotes standards for the transfer of data to and from the pharmacy services sector of the healthcare industry using information technology (IT). It is a not-for-profit American National Standards Institute (ANSI)-accredited Standards Development Organization consisting of over 1,500 members who represent chain and independent pharmacies, consulting companies and pharmacists, database management organizations, federal and state agencies, health insurers, health maintenance organizations, mail service pharmacy companies,
pharmaceutical manufacturers, pharmaceutical services administration organizations, prescription service organizations, pharmacy benefit management companies, professional and trade associations, telecommunication and systems vendors, wholesale drug distributors, and other parties interested in electronic standardization within the pharmacy services sector of the health care industry. (http://www.ncpdp.org/)

**NCPHI**

The National Center for Public Health Informatics (NCPHI), part of the Centers for Disease Control and Prevention (CDC), provides leadership in the application of information, computer science, and technology to public health practice, research, and learning. (http://www.cdc.gov/ncphi/index.html)

**NDC**

The National Drug Code (NDC) is a unique product identifier for human prescription drugs and insulin products; it consists of a 10 digit, three-segment number in which the first segment is the labeler code (the manufacturer or distributor), the second the product code (including strength, dosage form, and formulation), and the third is the packaging code (the package size and type). This number is reported to the Food and Drug Administration (FDA) along with relevant information about the drug by drug companies. (http://www.fda.gov/cder/ndc/)

**Network Protocol**

A network protocol defines a "language" of rules and conventions for communication between network devices. A protocol includes formatting rules that specify how data is packaged into messages. It also may include conventions like message acknowledgement or data compression to support reliable and/or high-performance network communication.

**NHCQF**

The Northeast Healthcare Quality Foundation (NHCQF) is a non-profit, educational organization which contracts with the Centers for Medicare & Medicaid Services (CMS) to serve as the Medicare Quality Improvement Organization (QIO) for the states of Maine, New Hampshire, and Vermont. Its founding purpose is to "to advance, promote, develop and institute patterns of the highest quality of care." (http://www.nhcqf.org/)

**NHII**

The National Health Information Infrastructure (NHII) is an initiative to improve the effectiveness, efficiency, and overall quality of health and health care in the United States. It consists of a network of interoperable systems of clinical, public health, and personal health information intended to improve decision making by making health information available when and where it is needed. It also includes the set of technologies, standards, applications, systems, values, and laws that support all facets of individual health, health care, and public health. (http://aspe.hhs.gov/sp/NHII/)
NHIN

The Nationwide Health Information Network (NHIN) initiative is a key element of the national health information technology strategy designed to provide the foundation for interoperable, secure, and standards-based health information exchange (HIE) nationally. NHIN contracts will bring together technology developers with doctors and hospitals to create innovative state-of-the-art ideas for how health information can be securely shared. This effort will help design an information network that will transform our health care system resulting in higher quality, lower costs, less hassle, and better care for American consumers. It will essentially be a “network of networks.”

NIH

The National Institutes of Health (NIH), which is part of the U.S. Department of Health and Human Services (HHS), is the primary federal government agency for conducting and supporting medical research; its work also includes support for the development of health information technology (HIT). (http://www.nih.gov/)

NIS

A Nursing Information System (NIS) is a computer system which supports the duties of nurses in the areas of clinical practice, nursing administration, education, and research.

NLM

The National Library of Medicine (NLM), which is part of the National Institutes of Health (NIH), is the world’s largest medical library and it provides information and research services in all areas of biomedicine and health care. (http://www.nlm.nih.gov/)

Node

In networks, a node is a processing location; a node can be a computer or some other device, such as a printer.

NPI

The National Provider ID (NPI) is a unique number assigned to each healthcare provider as mandated by the Health Insurance Portability and Accountability Act (HIPAA).

ONC

The Office of the National Coordinator for Health Information Technology (ONC) provides leadership for the development and nationwide implementation of an interoperable health information technology infrastructure to improve the quality and efficiency of health care and the ability of consumers to manage their care and safety. This position is part of the Department of Health and Human Services (HHS) and serves as the Secretary’s principal advisor on the development, application, and use of
health information technology (HIT). The ONC also provides management of and logistical support for the American Health Information Community (AHIC). (http://www.hhs.gov/healthit/)

**Ontology**

A set of concepts, their attributes, and the relationships between them within a given subject domain. In health informatics, this term frequently refers to a formal description of the domain that can be understood by a computer.

**openEHR**

This refers to the public specifications and implementations for open source software and tools for electronic health record (EHR) systems; it is based on a separation of the software and clinical models. It is sponsored by the openEHR Foundation.

**openEHR Foundation**

This foundation is an international organization, based in the United Kingdom, dedicated to making the interoperable, life-long electronic health record (EHR) a reality and improving health care in the information society. (http://www.openehr.org/)

**Open System**

A term for computer systems that are built to common public standards. An example is openEHR.

**Organizational Change**

Organizational change is important to usher in long-term success in an organization. A change entails realignment of organizational systems and processes. Organizational change is an ongoing process in order to bring the organizational systems and processes in line with the factors prevailing in the external and internal environment of the organization. The forces of organizational change include internal and external forces. Organizational change is imperative to increase the knowledgebase of an organization. It facilitates the overhauling of organizational systems and processes.

**Organizational Culture**

Organizational culture consists of the taken for granted values, underlying assumptions, expectations, and definitions present in an organization whose primary function is to provide meaning, stability, predictability, and comfort to an organization's participants through a process of shared learning that results in a common perspective. The culture permits an organization to act on opportunities and challenges in a coherent and consistent manner. In the context of healthcare, organizational culture is a critical link between a healthcare organization's articulated strategy and attainment of its goals.
Organizational Team

The group of individuals, usually from multiple disciplines, who drive and participate in an organizational process.

PACS

A Picture Archiving and Communication System (PACS) is a system which acquires, stores, retrieves, and displays images.

Patient Kiosk

This is a self-service device for patient use, frequently an electronic system which includes as a minimum a keyboard and screen but may also include other features such as a printer and card reader, which allows the patient to perform various functions depending on the particular kiosk. Some of the possible functions include checking in for appointments, completing medical and insurance forms online, checking laboratory results, and possibly getting advice on how to manage their chronic health problems (e.g., there has been a patient kiosk designed to provide decision support assistance to patients in managing their asthma).

Patient-Tracking Application

A system used to track and manage the movement of patients through the organization.

PDA

A Personal Digital Assistant (PDA) is a handheld mobile device with scheduling and contact list capabilities. Some versions also support other tools such as handwriting analysis.

PDF

Portable Document Format (PDF) is a specification used for electronic document distribution and exchange. It was invented by Adobe, Inc.

PDSA Cycle

The Plan/Do/Study/Act (PDSA) cycle, originally developed by Walter Shewhart in 1930s and later popularized by W. Edwards Deming, is a component of the Model for Improvement which involves testing changes on a small scale before full implementation; it is a quality improvement tool. The phases are briefly defined as: Plan – a specific planning phase, Do – a time to try the change and observe what happens, Study – an analysis of the results of the test, and Act – devising next steps based on the analysis.
**Performance testing**

Performance testing is testing conducted to evaluate the compliance of a system or component with specified performance requirements.

**Pharmacy Information System**

This is an information system which supports the functions of pharmacy personnel. It can perform such functions as receiving prescriptions, checking with a patient’s insurance company to see if the prescribed medication is covered, checking for drug interactions with other medications the patient is taking, and maintaining a medication history for the patient.

**PHI**

Protected health information (PHI) under the Health Insurance Portability and Accountability Act (HIPAA) refers to individually identifiable health information. In this context, identifiable means not only data that is explicitly linked to a particular patient but also data which could reasonably be expected to allow such individual identification. Examples of such identifying data include names, all geographic subdivisions smaller than a state with a few exceptions, all elements of dates (except year) for dates directly related to an individual with a few exceptions, telephone numbers, facsimile numbers, electronic mail addresses, social security numbers, medical record numbers, health plan beneficiary numbers, account numbers, certificate/license numbers, vehicle identifiers and serial numbers including license plate numbers, device identifiers and serial numbers, web universal resource locators (URLs), internet protocol (IP) address numbers, biometric identifiers including fingerprints and voiceprints, full-face photographic images and any comparable images, and any other unique identifying number, characteristic, or code, unless otherwise permitted.

**PHIN**

The Public Health Information Network (PHIN) is the Centers for Disease Control and Prevention (CDC) effort to advance the development of interoperable information systems in the many organizations involved in public health. It could be used, for example, in real-time reporting of infectious disease outbreaks to CDC and other public health agencies. ([http://www.cdc.gov/phin/](http://www.cdc.gov/phin/))

**PHIT**

Personal health information technology (PHIT) allows the documentation of an individual’s health history in a secure, standardized format that he/she controls and yet is accessible to providers from any location. It should be noted that this information may not be complete in many cases; for example, a heart rate monitor worn by a patient would only contain information about that limited area and not other information such as his/her surgical history, etc.
**PHR**

Personal health record (PHR) is a computer-accessible, interoperable resource of pertinent health information on an individual. Individuals manage and determine the rights to the access, use, and control of the information. The information originates from multiple sources and is used by individuals and their authorized clinical and wellness professionals to help guide and make health decisions.

**Pixel**

In computer graphics, a pixel is the smallest element of a display surface that can be assigned independent characteristics. This term is derived from the term "picture element."

**Pilot Project**

A pilot project involves an example software application that shows the potential of a larger application. It is an activity planned as a test or trial.

**Pilot Test**

Preliminary test or study of the system to try out procedures and make any needed changes or adjustments. It involves conducting a test with a small group of people from the target audience; this is done in order to see whether the program can be effective and find any problems with the intervention.

**Plug-Ins**

These are software entities added to programs such as Web browsers to allow specific functionality such as the ability to deal with some types of video media.

**PMS**

A Practice Management System (PMS) is a system which supports the information processing requirements for a physician office or group practice. These functions generally include registration, appointment scheduling, clinical documentation, and billing.

**POMR**

A Problem-Oriented Medical Record (POMR) is a medical record in which data is grouped by association with specific medical problems.

**Postscript**

A computer application available from a commercial vendor which describes a common format for electronic documents for both printing and display.
Privacy

In general, privacy is the ability of an individual or group to keep their lives and personal affairs out of public view, or to control the flow of information about themselves. For purposes of the Health Insurance Portability and Accountability Act (HIPAA), privacy means an individual's interest in limiting who has access to personal health care information.

Process Change

A specific change in a process within the organization; it is focused, detailed, and describes what specific changes should occur. It is also sometimes used as a purposely vague term chosen to embrace the complete range of process change methods and techniques, including the alignment of processes and strategies, the creation of a process architecture, the analysis of processes, redesign, improvement, automation, and implementation.

Project Management

The application of modern management techniques and systems to the execution of a project from start to finish, to achieve predetermined objectives of scope, quality, time and cost, to the equal satisfaction of those involved.

PSO

Patient Safety Organizations (PSOs) were created by the Patient Safety and Quality Improvement Act (PSQIA) for the purpose of receiving reports of medical errors, developing ways to improve patient safety, reducing medical errors, and providing technical assistance to prevent medical errors from re-occurring.

PSQIA

The Patient Safety and Quality Improvement Act, passed in 2005, created Patient Safety Organizations (PSOs), established a network of patient safety databases, and created a system through which care providers can anonymously report information regarding medical errors.

Public Health Data Standards Consortium

This is a group devoted to the development, promotion, and implementation of data standards for population health practice and research. It is a standards oriented organization focused on representing the public health community at the principal standards development organizations and promoting the use of data and systems standards by the public health community. It works with standards development organizations such as Health Level 7 (HL7) and X12 to implement existing standards, to modify those standards to meet the needs of public health and research, and, where appropriate, to develop new standards. ([http://www.phdsc.org/](http://www.phdsc.org/))
Public Health Informatics

An area of biomedical informatics applied to the field of public health. It is defined as the systematic application of information, computer science, and technology to public health practice, research, and learning with the goal of promoting the health of populations.

Public-Key Cryptography

An encryption method in which two keys (which are actually numbers) are used, one to encrypt information and the other to decrypt it; only one of the keys needs to be kept secret.

PubMed

PubMed is a software tool for searching the MEDLINE database, which was developed by the National Library of Medicine (NLM). (http://www.ncbi.nlm.nih.gov/sites/entrez/)

QIO

Quality Improvement Organization (QIO), under the direction of the Centers for Medicare and Medicaid Services (CMS), works with physicians, hospitals, other care providers, and consumers to refine care delivery systems. There is a separate QIO for each state, territory, and the District of Columbia.

Quality Assurance

Quality assurance, also frequently known as QA, refers to the policy, procedures, and systematic actions established in an enterprise for the purpose of providing and maintaining some degree of confidence in data integrity and accuracy throughout the life cycle of the data, which includes input, update, manipulation, and output. It also refers to the actions, planned and performed, to provide confidence that all systems and components that influence the quality of the product are working as expected individually and collectively.

Query

A request for specific information from a database. Queries are the primary mechanism for retrieving information from a database and consist of questions presented to the database in a predefined format. Many database management systems (DBMS) use the Structured Query Language (SQL) standard query format.

Range Check

A process for verifying that medical data is within an expected range of values.

RDF

The Resource Description Framework (RDF) is an emerging standard for cataloging metadata about information resources (e.g., Web pages) using the Extensible Markup Language (XML). It is a language...
for representing information about resources in the World Wide Web (WWW). It is particularly intended for representing metadata about Web resources, such as the title, author, and modification date of a Web page, copyright and licensing information about a Web document, or the availability schedule for some shared resource. However, by generalizing the concept of a "Web resource", RDF can also be used to represent information about things that can be identified on the Web, even when they cannot be directly retrieved on the Web. RDF is intended for situations in which this information needs to be processed by applications, rather than being only displayed to people. RDF provides a common framework for expressing this information so it can be exchanged between applications without loss of meaning. The ability to exchange information between different applications means that the information may be made available to applications other than those for which it was originally created.

**Recovery**

Recovery is the restoration of a system, program, database, or other system resource to a prior state following a failure or externally caused disaster; for example, the restoration of a database to a point at which processing can be resumed following a system failure.

**Regenstrief Institute**

An internationally recognized informatics and healthcare research organization dedicated to the improvement of health through research that enhances the quality and cost-effectiveness of health care. ([http://www.regenstrief.org/](http://www.regenstrief.org/))

**Registries**

Registries are organized systems for the collection, storage, retrieval, analysis, and dissemination of information on individual persons who have either a particular disease, a condition (e.g., a risk factor) that predisposes to the occurrence of a health-related event, or prior exposure to substances (or circumstances) known or suspected to cause adverse health effects. Registries are frequently electronic and cover such areas as cancer and immunizations.

**Reliability**

Reliability is the ability of a system or component to perform its required functions under stated conditions for a specified period of time.

**Remote Access**

Accessing a system while the user is physically removed from the system.

**Remote-Presence Health Care**

This refers to the use of technologies such as video conferencing and image transmission to evaluate and treat patients when the interaction is not face-to-face.
**RHIN**

A Regional Health Information Network (RHIN) is a network among providers, pharmacies, payers, and public health departments which enables sharing of health information among all participants.

**RHIO**

A Regional Health Information Organization (RHIO) is a multi-stakeholder governance entity that convenes non-affiliated health and healthcare-related providers and the beneficiaries they serve, for the purpose of improving health care for the communities in which it operates. It takes responsibility for the processes that enable the electronic exchange of interoperable health information within a defined contiguous geographic area.

**RIM**

The Reference Information Model (RIM) is the data model for version 3.0 of Health Level 7 (HL7).

**RIS**

A radiology information system (RIS) is a system to support operations of a radiology department. This generally includes patient scheduling, management of the film library, results reporting, and billing.

**RLS**

A Record Locator Service (RLS) holds information authorized by the patient about where authorized information can be found, but not the actual information the records may contain. It thus enables a separation, for reasons of security, privacy, and the preservation of the autonomy of the participating entities, of the function of locating authorized records from the function of transferring them to authorized users. Release of information from one entity to another is subject to authorization requirements between those parties; in certain sensitive treatment situations patients or providers may choose not to share information. It needs to enable a care professional looking for a specific piece of information to find it rapidly.

**Robustness**

Robustness is the degree to which a system or component can function correctly in the presence of invalid inputs or stressful environment conditions.

**Role-Limited Access**

A method which allows access to information to be limited based on a person’s role in the organization.

**Run Chart**

A graphic representation of data over time and known as the “line graph”. This is very effective for displaying data in process improvement projects.
**Schema**

A database schema is a collection of metadata that describes the relations in a database. A schema can be simply described as the "layout" of a database or the blueprint that outlines the way data is organized. A schema is normally described using Structured Query Language (SQL).

**Scope Creep**

Scope creep is the uncontrolled growth of the project scope resulting from constant changes to requirements without consideration to the impact on resources or timescale.

**SCRIPT**

This is a standard developed by the National Council for Prescription Drug Programs (NCPDP) for transmission of prescription information electronically between prescribers and providers.

**Search Engine**

A computer program designed to seek information as specified by the user on the World Wide Web (WWW) or on a local network.

**Secret-Key Cryptography**

A method of encrypting data in which the same key (which is actually a number) is used to both encrypt and decrypt the data. Therefore, the key must be kept secret.

**Self-Management Support**

Patients are provided with ongoing efforts to assist them in learning to live with a chronic illness. This includes goal setting, identification of barriers and challenges, personalized problem solving and follow-up support.

**Single Sign-On**

This is an authentication process in which the user enters one user name and password in order to access multiple applications; it eliminates the need for the user to have to enter such information each time he/she switches to a different application.

**SNO**

Sub Network Organization (SNO) is sometimes used as a replacement term for Regional Health Information Organization (RHIO). The responsibilities of the SNOs include: establishing a multi-stakeholder governance structure that includes the representation of patients and consumers and safety net providers, defining and meeting the particular information access needs of the region or sub-network while addressing the needs of patient populations that cross multiple communities nationwide or are contiguous but cross state lines, organizing the creation of user agreements, a common set of
multi-lateral policies, procedures, and standards to facilitate reliable, efficient sharing of health data among authorized users as required, supervising uniform adoption of information sharing policies or by participating entities and mechanisms for their enforcement (e.g., sanctions), developing policies to address the need for retention and persistence of data, addressing conflicts among relevant stakeholders in a timely way, building, maintaining and managing the regional Record Locator Services (RLS) and other sub-network systems and services, assuring that sub-network systems and the end-point systems of their members (including the RLS) adhere to the agreed framework, providing support to participants in the federation, establishing the financial sustainability models for the entity, and ensuring that all of the information capabilities that define the health information environment (including public health reporting and surveillance, research and improving health care quality) can be met over time.

**SNOMED**

The Systematized Nomenclature of Medicine (SNOMED), a validated terminology, refers to both the code set used in structured clinical knowledge environments and the organization which owns the code set. SNOMED was developed by the College of American Pathologists and is a standardized medical vocabulary for use in the health care information infrastructure. ([http://www.snomed.org/](http://www.snomed.org/))

**SNOMED CT**

The Systematized Nomenclature of Medicine – Clinical Terms (SNOMED CT) is a comprehensive clinical terminology originally developed by the College of American Pathologists (CAP) and now owned and maintained by the International Health Terminology Standards Development Organization (IHTSDO). SNOMED CT is one of a suite of designated standards for use in U.S. Federal Government systems for the electronic exchange of clinical health information.

**Software**

The program of instructions that directs the operation of a computer.

**SOP**

A standard operating procedure (SOP) is a written procedure or set of procedures that describes how to perform a given operation. It should normally include the precise steps of the operation, who has responsibility for performing it, and what actions should be performed in the event of a mistake or unexpected situation.

**SQL**

Structured Query Language (SQL) is a language for retrieving information from relational databases. It is an American National Standards Institute (ANSI) standard computer language for accessing and manipulating database systems. SQL statements are used to retrieve and update data in a database.
**SSL**

Secure Socket Layer (SSL) is a protocol for transmitting private information over the Internet. It was developed by Netscape and requires a connection starting with “https:” instead of “http:”.

**Stakeholder**

A person or organization that has an interest in the project processes, outputs, or outcomes.

**Structured Data**

Structured data is data that has been organized to allow identification and separation of the context of the information from its content; each piece of data has an assigned format and meaning.

**Synchronous Communication**

A mode of communication in which the parties exchange messages at the same time. Examples include a telephone conversation and a face-to-face meeting.

**System**

People, machines, and/or methods organized to accomplish a set of specific functions.

**Taxonomy**

This refers to an orderly classification which reflects the natural relationships among entities.

**TCP/IP**

Transmission Control Protocol/Internet Protocol (TCP/IP) is the standard for data transmission on the Internet and other networks.

**Telehealth**

The use of electronic communications networks for the transmission of information and data focused on health promotion, disease prevention, diagnosis, consultation, education, and/or therapy, and the public's overall health including patient/community education and information, population-based data collection and management, and linkages for health care resources and referrals. Although telehealth is sometimes considered broader in scope than telemedicine, there is no clear-cut distinction between the two.

**Telemedicine**

The use of audio, video, and other telecommunications and electronic information processing technologies for the transmission of information and data relevant to the diagnosis and treatment of medical conditions, or to provide health services or aid health care personnel at distant sites.
Terminal

A system consisting of a keyboard and screen which provides access to a computer system.

Test

A small scale trial of a new approach or a new process. It is designed to learn if the change made has resulted in improvement and to fine tune the change in order to fit the organization and its patients. This testing is part of the Plan/Do/Study/Act (PDSA) cycle.

Testing

The process of operating a system or component under specified conditions, observing or recording the results, and making an evaluation of some aspect of the system or component. It also refers to the process of analyzing a software item to detect the differences between existing and required conditions, i.e. bugs, and to evaluate the features of the software items.

Text Generation

The creation of natural language text from structured data.

Text Parsing

This refers to the conversion of unstructured text into a structured representation. This can be used to convert the relatively unstructured format of dictated reports, such as radiology reports, to a structured format useful for searching and analysis by a computer.

Thesaurus

A collection of subject headings or descriptors usually with a cross-reference system for the organization of a collection of documents. Computer databases may include a thesaurus to enable users to find out which terms or subject headings have been used in that particular database to represent the subject they are interested in.

Top-Down Design

Top-down design pertains to design methodology that starts with the highest level of abstraction and proceeds through progressively lower levels.

Touch Screen

A computer display that enables the user to interact with the computer by touching areas on the screen.

Trojan Horse

A method of attacking a computer system, typically by providing a useful program which contains code intended to compromise a computer system by secretly providing for unauthorized access, the
unauthorized collection of privileged system or user data, the unauthorized reading or altering of files, the performance of unintended and unexpected functions, or the malicious destruction of software and hardware.

**Turnkey System**

This is a computer system purchased from a vendor which can be installed and operated with only minor modifications.

**UMLS**

The Unified Medical Language System (UMLS) is a terminology system developed by the National Library of Medicine (NLM) designed to produce a common structure to tie together various vocabularies. ([http://www.nlm.nih.gov/research/umls/](http://www.nlm.nih.gov/research/umls/))

**UMLS Semantic Network**

A component of the Unified Medical Language System (UMLS) which provides a consistent categorization of all concepts in the Metathesaurus.

**URL**

The Uniform Resource Locator (URL) is the address of a device on the World Wide Web (WWW).

**USHIK**

The United States Health Information Knowledgebase (USHIK) is a health metadata registry funded and directed by the Agency for Healthcare Research and Quality (AHRQ); it provides and maintains a metadata registry for health information data element definitions, values, and information models that enable browsing, comparison, synchronization, and harmonization within a uniform query and interface environment. ([http://www.ushik.org/registry/x/index.html/](http://www.ushik.org/registry/x/index.html/))

**Virus**

A program which secretly alters other programs to include a copy of itself, and executes when the host program is executed. The execution of a virus program compromises a computer system by performing unwanted or unintended functions which may be destructive.

**VistA**

The Veterans Health Information Systems and Technology Architecture (VistA), formerly known as the Decentralized Hospital Computer Program (DHCP), is the primary system for the collection, storage, analysis, and use of clinical, administrative, and financial data for the Veterans Administration health system. ([http://www1.va.gov/VHA_OI/page.cfm?pg=42/](http://www1.va.gov/VHA_OI/page.cfm?pg=42/))
**Vocabulary**

This is a dictionary containing the terminology for a subject.

**Voxel**

A voxel is a three dimensional rectangular section of the subject being imaged, the signal from which contributes to the intensity of the image. It is the three dimensional equivalent of a pixel; a voxel is a "volume element."

**VPN**

A Virtual Private Network (VPN) is a secure communication channel frequently used to access resources by a user connecting from a remote site; it frequently uses a public network using encryption to keep data secret.

**Vulnerability**

Vulnerability is the degree to which a software system or component is open to unauthorized access, change, or disclosure of information and is susceptible to interference or disruption of system services.

**WAN**

A Wide Area Network (WAN) is a network connecting sites belonging to different organizations and distributed over long distances.

**Web Browser**

A program for accessing and displaying content from the World Wide Web (WWW).

**Wireless**

Wireless refers to telecommunications in which electromagnetic waves, rather than wire, carry the message over part or the entire pathway.

**Workaround**

A sequence of actions the user should take to avoid a problem or system limitation until the computer program is changed. They may include manual procedures used in conjunction with the computer system.

**Workflow**

A generic term for a process or for the movement of information or material from one activity to another.
**Worm**

An independent program which can travel from computer to computer across network connections replicating itself in each computer. They do not change other programs, but compromise a computer system through their impact on system performance.

**Worst Cast Testing**

Testing which encompasses upper and lower limits and circumstances which pose the greatest chance finding of errors.

**WWW**

The World Wide Web (WWW) is an application based on the Internet which allows easy access to Internet resources, frequently using the HyperText Transfer Protocol (HTTP).

**X12**

X12 is an American National Standards Institute (ANSI) standard for the structure of Electronic Data Interchange (EDI) which is used in multiple domains such as health care, finance, government, insurance, and transportation.

**XML**

The Extensible Markup Language (XML) is a general-purpose markup language designed for Web documents which allows designers to create their own custom-tailored tags. It is used extensively to transfer health data between different and incompatible computer systems.

**ZIP File**

This is a file that contains one or more files that have been compressed using the popular ZIP compression method; this is useful for reducing the size of files to save on storage requirements and transmission time. These files frequently have a “.zip” extension to identify them.