MOST WIRED DEFINITIONS

Acceptable use: States the purposes for which BYOD devices could be used, whether clinical or nonclinical, and by whom. It defines reasonable use and prohibited activities.

Access control: Defines who will have access to what information and when. This is particularly important for personal health information, where the principle of least privileges must be applied. Only the required information must be supplied and only when needed, especially when it comes to patient data.

Accountable Care Organization (ACO): Generically defined as a group of health care providers, potentially including doctors, hospitals, health plans and other health care constituents, who voluntarily come together to provide coordinated high-quality care to populations of patients. The goal of coordinated care provided by an ACO is to ensure that patients and populations — especially the chronically ill — get the right care, at the right time and without harm, while avoiding care that has no proven benefit or represents an unnecessary duplication of services. A wide range of payment models may be used.

After the fact reporting: Reports in various forms (PDF, spreadsheet, .RPT, etc…) delivered retrospectively (nightly/daily/weekly/quarterly) to shared drive(s), via e-mail, via portal(s), or other non-interactive platforms.

ADT feeds: One way an application or a provider can get information from a clinic or hospital information system (HIS). With the constant updating of a client, customer or patient's data, ADTs comprise the most HL7 messaging traffic.

Artificial Intelligence (AI): A system that may utilize machine learning and predictive analytics to assess a situation and either recommend or take actions that maximize chances of success/positive outcomes.

Auto-ID technology: Short for automatic identification, auto-ID is the term used to describe the process of automatic data collection and identification that occurs in real-time. Bar code and RFID (radio-frequency identification) technology are considered types of auto-ID technology.

Automated real-time dashboards: Presents context sensitive [transformed] data insights immediately when time is of the essence, for shared or individual consumption with limited ability to manipulate; constantly updated.

Bar-coding: The most common form of automatic identification used in automatic data-capture technologies.

Biometrics: A person's unique physical and other traits are detected/recorded by an electronic device or system as a means of confirming identity.

Care plan: The structure used to define the management actions for the various conditions, problems, or issues. A care plan must include at a minimum the following components: problem (the focus of the care plan), goal (the target outcome) and any instructions that the provider has given to the patient. A goal is a defined target or measure to be achieved in the process of patient care (an expected outcome).

Clinical analytics: The capture and use of discrete clinical data to identify and measure quality, patient safety, or service line efficiencies and improvements.

Clinical guidelines: Recommendations based on the latest available evidence for the appropriate treatment and care of a patient's condition. Clinical pathways: Systematic approach to achieving particular outcomes for patient care, which identifies the resources required in amount and sequence for that type of case.

Clinical quality: The degree to which health care systems, services and supplies for individuals and populations increase the likelihood for positive health outcomes and are consistent with current professional knowledge.

Clinically integrated network (CIN): Collaboration among independent/private practice and employed physicians and a hospital or health system, to develop a clinical integration program, which is an active and ongoing program of clinical initiatives to improve the quality and delivery of health care services, leading to greater efficiency in care delivery and cost savings.

Cloud services: Services made available to users on demand via the Internet from a cloud computing provider's servers as opposed to being provided from a company's own on-premises servers.

CMS quality measures: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/Core-Measures.html

Computerized disease registry: Computer applications used to capture, manage, and provide information on specific conditions to support organized care management of patients with chronic disease.

Computerized provider order entry (CPOE): A computer-based system that automates and standardizes the clinical ordering process in order to eliminate illegible, incomplete and confusing orders. CPOE systems require providers to enter information into predefined fields by typing or making selections from on-screen menus.

Configuration management system (CMS): Systems management software that provides remote control, patch management, software distribution, operating system deployment, network access protection and hardware and software inventory.

Continuity of care document (CCD): These are structured standards for clinical information exchange that allow physicians and other health care providers to send electronic medical information to each other without loss of meaning.

Data as a service (DaaS): A data distribution model in which data is hosted by a vendor or service provider and made available to customers over a network, typically the Internet.

Data Literacy Program: An effort designed to assist data analysts/scientists in reading, writing and communicating data in context

Data repository model: A place that holds data, makes data available to use, and organizes data in a logical manner; some have specific access or requirements (e.g. file format, data structure).

Data storage: Specifies what patient data are allowed to be stored on BYOD devices and how. If backup is involved, the policy should also advocate for separate backup of personal and patient data.

Decision support: Provides clinicians, staff, patients or other individuals with knowledge and person-specific information, intelligently filtered or presented at appropriate times, to enhance health and health **care.**

Diagnostic images: Determined by various statistical protocols which evaluate diagnostic accuracy is retained, even when an image is compressed.

Discrete data: The lowest level of data/information granularity that is both measurable and reportable

Disease registry: A tool for tracking the clinical care and outcomes of a defined patient population. Disease registries are often used to support patients with chronic diseases, such as diabetes, coronary artery disease, or asthma.

Disease surveillance system: Automated system that collects and monitors data for disease trends and/or outbreaks so that public health personnel can better protect the local community and nation's health. Disease surveillance is an epidemiological practice by which the spread of disease is monitored in order to establish patterns of progression. The main role of disease surveillance is to predict, observe and minimize the harm caused by outbreak, epidemic and pandemic situations, as well as increase our knowledge as to what factors might contribute to such circumstances.

Education strategy: Strategies to train employees periodically to ensure secure user behavior. BYOD users should be constantly updated about latest cybersecurity threats. Policies should be disseminated through all means possible. Changes in policies should also be communicated.

Electronic bed tracking system: A tool that is used to keep track of patients in beds, the status of each bed and the availability of beds. The use of color-coding in the application allows the user, at a quick glance, to see the status (empty, dirty, arrived, isolation, pending admit, pending transfer, pending discharge, discharge for death, closed, out of service, etc.) of each bed and bed availability throughout the hospital.

Electronic cabinet: An automated medication dispensing cabinet or automated supply management cabinet.

Electronic data interchange (EDI): ANSI (American National Standards Institute) formatted transaction that is sent directly to the supplier, through a dial-up connection, a third-party network service provider or the Internet.

Electronic health record (EHR): Owned by the patient and has patient input and access that spans episodes of care across multiple care delivery organizations within a community, region or state. According to the Institute of Medicine of the National Academies, an EHR should have eight core functions: health information and data, results management, order management, decision-support, electronic communication and connectivity, patient support, administrative processes and results reporting.

Electronic medical record (EMR): A computerized medical record similar in structure, scope and information content to a paper-based record. It is capable of capturing, processing and storing information and is interoperable with other related systems, such as billing and administrative applications. The data in the EMR is the legal record of what happened to the patient and is owned by the care delivery organization.

Electronically stored: Data from paper records is entered into an electronic file.

Electronically updated: Data is entered directly into an electronic file that can interface with other databases for real-time updates.

E-mail: Includes both Internet and private e-mail (e.g., within the organization).

Handhelds: A very small, lightweight device that provides functionality approaching that of a laptop computer. Features of modern handhelds include calendar and diary organizing, word processing, data management, remote access to an organization's network, Internet access, wireless access and messaging. Increasingly used in clinical practice for applications such as taking patient notes and ordering prescriptions.

HL7 CCOW (Health Level Seven International Clinical Context Object Workgroup) standard: An interface standard for context management that enables consistent access to patient data by allowing multiple disparate applications to integrate on the clinician's desktop within a common context.

Hospital-acquired infection surveillance software: An application that systematically monitors hospital-acquired infection rates. This application may be part of the infection control management software.

Hospital inpatient: A facility, other than psychiatric, which primarily provides diagnostic, therapeutic (both surgical and nonsurgical) and rehabilitation services by or under the supervision of physicians, to patients admitted for a variety of medical conditions

Hospital outpatient: A portion of a hospital which provides diagnostic, therapeutic (both surgical and nonsurgical), and rehabilitation services to sick or injured persons who do not require hospitalization or institutionalization.

Imaging decision support: A technology that assesses appropriateness of imaging exams based on the condition under evaluation.

Incident reporting: Defines the procedure for reporting cases of breaches, including cases of theft/loss of device. Employees must report such cases to the IT department, especially if patient data are involved, and the IT department must report it to government agencies in case of major breaches.

Incident response exercise/tabletop: An exercise designed to determine the validity of a company's Computer Security Incident Response (CSIR) plan.

Infection control management software: An infection assessment and reporting application that automatically identifies patients with pathogens, antibiograms, or antibiotics that need tracking. Uses infection definitions based on the Center for Disease Control Nosocomial Infections Surveillance System, as well as custom, hospital-defined criteria. Tracks spikes in infection rates and identifies locations of affected patients within the facility.

Infrastructure as a service (IaaS): A provision model in which an organization outsources the equipment used to support operations, including storage, hardware, servers and networking components. The service provider owns the equipment and is responsible for housing, running and maintaining it.

Integrated surveillance system: A unified system that captures in real-time or near real-time all relevant alerts regarding the patient condition and presents them to the provider in a single view in the EHR.

Internet-enabled monitoring device: Allows patients to easily upload personal health care data from personal monitoring devices such as blood glucose monitors, insulin pumps, and blood pressure cuffs. Remote monitoring is used for chronic disease management.

Legislation and noncompliance: Defines applicable privacy or health care laws as well as actions or penalties in case of noncompliance with the policy or in case of breaches caused by employee's personal devices.

Machine Learning: Process of developing algorithms that can improve automatically through experience and by the use of data; it is seen as a building block of artificial intelligence.

Medical-grade wireless infrastructure: Guarantees wireless coverage throughout a facility to support the use of multiple applications and devices such as pagers, two-way radios, wireless patient monitoring, Wi-Fi, VoIP and cellular phones at 99.999% reliability.

Medical device security tools: Software and/or hardware used to secure medical devices (e.g. pumps) from possible security breaches and/or cyber attacks.

Medication electronically matched: Automated double-check of medications administered at the point of care to ensure the correct medication is given to the correct patient, at the right dosage and time, and via the right route. For example, to identify potential medication errors before they happen, a scan of the nurse's badge, the patient's wristband and the medication, or the nurse logs in and enters codes presses buttons or both to indicate which medication was taken, in what quantity and for which patient.

Meaningful use (MU): The set of standards defined by the Centers for Medicare & Medicaid Services (CMS) Incentive Programs that governs the use of electronic health records and allows eligible providers and hospitals to earn incentive payments by meeting specific criteria.

Mobile: A handheld, a pocket-sized personal computer, smartphone, mobile workstations or computers on wheels (COWs) and tablet PCs.

Mobile device management (MDM): A type of security software used to monitor, manage and secure employees' mobile devices that are deployed across multiple mobile service providers and across multiple mobile operating systems.

Mobile voice recognition: Computer software program or hardware device with the ability to decode the human voice in a mobile environment (e.g. app, portable/wireless device).

On-demand self-service dashboards and reporting: Visualization tools that offer standard views and ability to explore other views and reports to meet the needs of clinical and operational areas.

PACS/images-Diagnostic quality: Primarily viewed by radiologist; provides deep detail, slicing/dicing, and/or reporting of the patient's image; typically too much information in this view to be helpful for a non-radiologist.

PACS/images-Referential quality: Often viewed by clinicians outside of radiology or referring physicians; provides high-level, less detailed view of a patient's image; typically not enough information on these types of images for a radiologist to formally diagnose a patient; can be integrated into part of the EMR often.

Patient-generated health data: Health-related data—including health history, symptoms, biometric data, treatment history, lifestyle choices, and other information—created, recorded, gathered, or inferred by or from patients or their designees (i.e., care partners or those who assist them) to help address a health concern.

Patient's personal health record (PHR): Electronic patient medical information stored for subsequent direct access by the patient. Content may be entered by the patient or transferred from an existing electronic record, or a combination of both. Also known as a personal medical record.

Patient surveillance system: Automated system that uses software alerts to track patient vital signs, lab test results and other clinical information to allow clinicians to intervene more quickly-before complications occur.

Person Centric Longitudinal metrics: Data tracked over time indicating health status. Examples include Cholesterol, HBA1, Body Mass Index, Glucose and others.

Personal Data Visualization tools: Offer the ability to re-structure queries and "drill-down" into the core data marts, filter information by a variety of parameters (date/time, patient, provider, disease, payer, etc.) on the fly.

Personal health tracker: Tools to help patients track, organize, and analyze all aspects of their health, such as blood glucose levels, diet, exercise, stress, medications and other vital health data.

Phishing: The activity of defrauding an online account holder of financial information by posing as a legitimate company.

Picture archiving and communications system (PACS): A network of computers used by radiology departments that replaces film with electronically stored and displayed digital images. It provides archives for storage of multimodality images, integrates images with patient database information, facilitates laser printing of images, and displays both images and patient information at work stations throughout the network. It also allows viewing of images in remote locations.

Portal: A single, "one-stop" Web page that allows data from multiple sources to be merged and displayed easily for role-based access control and one that enables users to modify and personalize their own templates to obtain the information they need.

Predictive analytics: A variety of statistical techniques from data mining, predictive modelling, and machine learning that analyze current and historical facts to make predictions about future or otherwise unknown events.

Prescsription drug monitoring program (PDMP): An electronic database that tracks controlled substance prescriptions within a state

Proximity systems: A form of authentication that is designed for use on common or shared computers. The end user gains access to authorized applications by holding a card close to the reader, which reads the card, or using a keypad to sign in. These systems are convenient for quick access or multiple locations.

Radio-frequency identification (RFID): A data collection technology that uses electronic tags for storing data. An RFID tag is an object that can be attached to or incorporated into a product, animal or person for the purpose of identification using radio waves. Passive tags require no internal power source, whereas active tags require a power source. Like bar codes, RFID tags identify items. However, unlike

bar codes, which must be in close proximity and in line of sight to the scanner for reading, RFID tags do not require line of sight and can be embedded within packages. Depending on the type of tag and application, they can be read at a varying range of distances.

Real-time care management: Care managers can perform level-of-care reviews online to quickly identify and hone in on patients who require case management interventions, or who are at higher risk for negative outcomes.

Real-time location system (RTLS): RTLS operates on the same principles as RFID, but it takes the technology one step further to provide hospitals with a more comprehensive, real-time solution for tracking and locating assets.

Remote data wipe: A security feature that allows a network administrator or device owner to send a command to a computing device and delete data.

Remote location: Anywhere outside of the hospital or a hospital-based or affiliated office. Includes home, remote office or unaffiliated hospital.

Remote published applications: Applications and resources centrally hosted on a terminal server which users can remotely access regardless of the location and platform of the end-user device.

Roaming sessions: A clinician is allowed to access patient information in an uninterrupted manner from any workstation. Clinicians can begin accessing their patient records on a workstation, and when their clinical workflow requires them to leave, those same patient records are immediately available when logged onto any other workstation.

Server virtualization: (1) Running multiple different operating systems or multiple instances of the same operating system in one server. (2) Treating all servers in a network or server farm as a single resource.

Service provision: Specifies the process of enrollment, registration, and deregistration.

Single sign-on: A user authentication process that permits a user to enter one name and password in order to access multiple applications. The process authenticates the user for all the applications they have been given rights to and eliminates further prompts when they switch applications during a particular session.

Social Determinant Metrics: Community and environmental factors that impact an individual's health status. Examples include housing, clean water, nutrition, air quality, public transportation, etc.

Social engineering risk assessment: An assessment and analysis of an organization's potential risk via social engineering (e.g. impersonation – attacker poses as trusted individual, IT support, to gain access to information; media drop – attacker distributes disposable media, USB drive or CS, to entice employee to view thereby compromising access).

Software as a service (SaaS): A software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet.

Storage area network (SAN): A high-speed subnetwork that interconnects different data storage devices with associated data servers for a large network. SANs support disk mirroring, backup and

restore, archival and retrieval of archived data, data migration from one storage device to another and the sharing of data among different servers in a network.

Storage virtualization: The pooling of physical storage from multiple network storage devices into what appears to be a single storage device that is managed from a central console. Storage virtualization is often used in SAN (storage area network), a high-speed subnetwork of shared storage devices, and makes tasks such as archiving, backup and recovery easier and faster. Storage virtualization is usually implemented with software applications or by using hardware and software hybrid appliances.

Structured data: Data that resides in fixed fields within a record or file. Relational databases and spreadsheets are examples of structured data.

Syndromic surveillance or clinical surveillance system: In response to the threat of biologic terrorism and the resurgence of virulent forms of infectious diseases, technologic advances are being applied to disease surveillance. Syndromic surveillance systems have emerged to capture and analyze health-indicator data to identify abnormal health conditions and enable early detection of outbreaks. Given the limited public health experience with biologic terrorism and the variety of possible terrorism scenarios, the research community is exploring the application of advanced detection technology to pre-diagnostic syndromic data.

Telehealth (a.k.a. virtual care): the use of telecommunication technology for patient/physician office, hospital visits and other services that would generally occur via an in-person setting

Traveling profiles: Also known as roaming profiles are user profiles that are stored in the server. Each time the user logs on; their profile is requested and sent to whatever machine makes the request. This allows the user to move from machine to machine and still maintain a consistent personal working environment. Network administrators find roaming profiles to be especially beneficial in a work or learning environment when more than one user shares the same computer, or when a user moves from place-to-place during the course of a workday.

Virtual desktop infrastructure (VDI): The practice of hosting a desktop operating system within a virtual machine (VM) running on a centralized server. VDI is a variation on the client/server computing model, sometimes referred to as server-based computing.

Voice over Internet protocol (VoIP): A category of hardware and software that enables people to use the Internet as the transmission medium for telephone calls by sending voice data in packets using Internet protocol rather than by traditional circuit transmissions of the public switched telephone network. One advantage of VoIP is that the telephone calls over the Internet do not incur a surcharge beyond what the user is paying for Internet access, much in the same way that the user doesn't pay for sending individual e-mails over the Internet.

Wireless network: A computer network that is not connected by cables; allows devices to stay connect to the network but roam untethered to any wires.

Wireless security assessment: Identify and inventory all wireless network access points, identify and exploit weaknesses in the wireless network, and assess the overall exposure of the organization to wireless network attacks.

Stages of Adoption

- **Fully Adopted**: A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted**: A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted**: A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

ACRONYMS

- ANSI—American National Standards Institute
- AI—Artifcial Intelligence
- CCD—Continuity of Care Document
- CHIME—College of Healthcare Information Management Executives
- CMS— Centers for Medicare & Medicaid Services
- CPOE—Computerized Provider Order Entry
- DICOM— Digital Imaging and Communications in Medicine
- EDI—ANSI-formatted Electronic Data Interchange
- EHR—Electronic Health Record
- EMR—Electronic Medical Record
- FTEs—Full-Time Employees
- HIMSS—Healthcare Information Management Systems Society
- HIPAA—Health Insurance Portability and Accountability Act of 1996
- RFID—Radio Frequency Identification
- RTLS— Real-time location system
- SAN—Storage Area Network
- VDI—Virtual Desktop Infrastructure
- VoIP—Voice Over Internet Protocol
- Wi-Fi—Wireless Fidelity