

Kaiser Permanente Comments on Health Information Technology, by James A. Ferguson

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Kaiser Permanente Overview



- Established in 1945, Kaiser Permanente (KP) is an integrated health care delivery system headquartered in Oakland, California. The mission of Kaiser Permanente is to provide affordable, high-quality health care services to improve the health of our members and the communities we serve.
- In 1981, the IRS determined that Kaiser Foundation Health Plan/ Hospitals is a qualified non-profit integrated delivery system (IDS), pursuant to Section 501(c)(3) of the Internal Revenue Code. This designation is assigned only if it is determined that a health plan "delivers", rather than simply "arranges" health care. KFHP/ H delivers health care in an integrated model in which primary medical care is provided in KP hospitals and clinics by dedicated physician groups.
- Kaiser Permanente comprises three principal components:
 - Kaiser Foundation Health Plans: Nonprofit, public benefit corporations that contract with individuals and groups to deliver comprehensive medical and hospital services. Health Plans contract with Kaiser Foundation Hospitals and medical groups to provide services.
 - Kaiser Foundation Hospitals: A nonprofit, public benefit corporation that owns and operates community hospitals in California, Oregon and Hawaii; outpatient facilities in several states; provides or arranges hospital services; and sponsors charitable, educational, and research activities.
 - Permanente Medical Groups: Partnerships or professional corporations of physicians - one or more in each Kaiser Permanente Region. The full responsibility for providing and arranging necessary medical care is assumed in each region by the Permanente Medical Groups. The Medical Groups formed The Permanente Federation to provide governance and policy direction on a national level. Permanente Medical Groups also sponsor research organizations including the Division of Research and the Center for Health Research.
- It is through close integration of all vital health care functions that Kaiser Permanente is able to achieve remarkable strengths and synergies that set it apart in terms of quality and efficiency from the fragmented, fee-for-service, non-systematic world of most American health care.

- KP serves over 8.7 million (2007) members and patients, primarily in California, Colorado, the District of Columbia, Georgia, Hawaii, Maryland, Ohio, Oregon, Virginia, and Washington.

- Overall, Kaiser Permanente:
 - Employs 156,853 staff
 - Comprises 13,729 physicians representing all disciplines and medical specialties
 - Operates 37 hospitals
 - Manages over 415 medical office buildings
 - Had Operating Revenue of: \$37.8 billion in 2007
 - The following representative data indicate the scope and volume of KP operations (in 2006):
 - ✓ Handled over 7 million call center calls
 - ✓ Processed over 2 million external claims
 - ✓ Delivered more than 85,000 new babies
 - ✓ Performed over 450,000 surgeries
 - ✓ Filled more than 112 million prescriptions, most electronically

General Areas Of Health Information Technology (IT)

- Electronic Medical Records (EMR) incorporating Clinical Decision Support capabilities (CDS), other Electronic Health Records (EHR) and Personal Health Records (PHR), also health records exchange, and patient information systems.
- Clinical ancillaries and other clinical information systems: laboratory, radiological and image management, pharmacy management, terminology services, clinical analysis and reporting systems.
- Biomedical devices including network connected devices, mobile devices, hospital and ambulatory devices, home health care devices, consumer medical devices and certain durable medical equipment.
- Population health including biosurveillance, public health reporting, immunization registries, disease registries, also statistical analysis and reporting such as that of the quality of health processes, outcomes and disparities.
- Administrative and financial information systems including claims and information derived from claims, billing, payments, registration and scheduling, administrative performance analysis and reporting.

- Absolute permanence of health care facts and records
 - Unlike commercial and financial transaction records, there are no means to revise definitive results nor give a clean slate to your personal health history
- Unique attachment of health records to an individual person
- Health records of an individual may relate to family members
 - The diagnostic testing, treatment or medication information of an individual may indelibly indicate genetic conditions of relatives
- Health IT aids clinical decision-making
- Health care data models are several orders of magnitude more complex than others, for example about 3.5 orders of magnitude more than financial services industry models
- Unique combination of concerns regarding personal privacy, medical practice and liability

Kaiser Permanente Experience With Health IT



- In 2003, KP began the KP HealthConnect project, the world's largest civilian deployment of an electronic health record. KP HealthConnect is a highly sophisticated information management and care delivery system that enhances the quality of patient care. KP HealthConnect integrates the electronic health record with appointments, ambulatory registration, inpatient admissions and billing. The system also links KP facilities across the nation and provides members, physicians and other authorized health care providers with online access to clinical information 24/7.

- By the end of 2004 KP HealthConnect was successfully implemented across all eight KP regions; Mid-Atlantic States, Northern California, Southern California, Northwest, Ohio, Colorado, Georgia, and Hawaii. Some of the major milestones accomplished are:
 - Apr 2003: Began system configuration.
 - Dec 2004: System launched in all eight KP regions with 18 major implementations complete.
 - Aug 2005: Personal health record (PHR) features on kp.org launched.
 - Dec 2006: Complete deployment of ambulatory billing, scheduling, and registration applications.
 - Apr 2007: Complete deployment of hospital billing, ADT, and pharmacy applications.
 - Nov 2007: *My Health Manager* debuted on kp.org with more than 1.7 million members
 - Apr 2008: More than 2 million members online with their personal health record.
 - The following data indicate the scale and use of KP HealthConnect (as of January 31, 2008):
 - ✓ Lab tests released online: 56,268,530
 - ✓ Lab tests viewed online: 14,214,111
 - ✓ Member messages sent: 5,025,106
 - ✓ Online visits to review past office visit information: 1,363,550
 - ✓ Online visits to review future appointments: 2,118,563

Kaiser Permanente's Use Of Electronic Medical Records



- KP HealthConnect assists our physicians, nurses and staff in delivering care that improves our members' health and quality of life, strengthens communications between health care teams and patients, and enhances our ability to practice personalized health care that is based on best medical practices. KP HealthConnect is a true Electronic Health Record as it presents and makes use of healthcare information for providers and patients beyond direct patient care.

- With the help of KP HealthConnect, Kaiser Permanente is equipped to:
 - Ensure patient safety and quality care by providing access to comprehensive patient information and the latest best practices research including rules driven evidence-based decision support in real time.
 - Coordinate patient care at every step of the way—between the physician's office, the hospital, radiology, the laboratory, and the pharmacy since KP HealthConnect is a full longitudinal record of all member encounters in all clinical settings supported by KP.
 - Access accurate and complete patient information 24/7. This is supported by full shadowing of the EHR with redundant data capabilities.
 - Give physicians and health teams the full picture of a patient's history and medical condition by providing comprehensive information at the point of care.
 - Include members as a partner in their care by providing electronic access to components of their medical record, supporting the ability to communicate to their health care providers, receive follow-up instructions and obtain educational and health care resources.
 - Eliminate the pitfalls of incomplete, missing, or unreadable charts.
 - Protect the privacy and security of our patients' health information by strict compliance with federal and state rules as applicable, including HIPAA.
 - Support quality management and outcomes reporting.
 - KP HealthConnect is currently the largest private sector installation of an Electronic Health Record in the United States.

- Administrative Simplification: HIPAA claims, billing and other administrative systems
 - Membership enrollment, eligibility and benefits
 - Billing and claims transactions
 - Electronic funds transfer (EFT) and remittance advice
 - Member and patient identification
 - Registration and scheduling

- Extended clinical information capabilities
 - Panel support tool
 - Disease registries and disease management
 - Large scale genomic studies
 - Data warehousing / information hub

- Interoperability with external entities and collaboration with other health care delivery organizations
 - Participation in federally-sponsored activities: Healthcare Information Technology Standards Panel (HITSP), Certification Commission for Health IT (CCHIT), National Health Information Network (NHIN)
 - Participation in local, regional and state-level health information exchange entities
 - Participation in industry initiatives: America's Health Insurance Plans (AHIP) PHR
 - Participation in national and international interoperability standards development

About Kaiser Permanente's Health IT Experience



- Cultural changes in Kaiser Permanente:
 - Physician collaboration across medical groups to define the desired end state and how to get there
 - Formation of voluntary interest groups by specialty, by medical information technology topic, and for data governance
 - Information technology reorganization first segregated IT resources to support the electronic medical record (EMR), then required new methods of collaboration

- Cultural change for individual health plan members to go online
 - Secure online provider communications, appointment scheduling, lab results, prescription refills
 - Greater consumer involvement in their own health care
 - Importance of online patient-provider linkage to gain benefits
 - Minimal if any privacy concerns reported for the provider-linked health records model

- Health information exchange with other entities is the next frontier
 - Importance of common technical data and security standards, common forms of agreements between entities, and common privacy rules

- Why should we care about interoperability?
 - For coordination of care across multiple care settings and providers
 - For consistency of care and medical best practices
 - For efficiency gains
 - To enable effective data sharing for emergency care and disaster care

- What are the kinds of interoperability?
 - Technical and syntactic system interoperability for consistent data and connectivity
 - Semantic interoperability of health records for consistent clinical meaning and context
 - Process interoperability for consistent clinical guidelines and care pathways

- Financial and administrative interoperability: HIPAA standards and industry initiatives

- Health Records interoperability: HITSP DHHS recognized standards, CCHIT system certification

- Interoperability is a key to successful health records exchange

- Electronic Health Records for all Americans by 2014
 - Kaiser Permanente currently provides Electronic Medical Records for over 8 million Americans
 - Over 2 million Kaiser Permanente members have activated and used their electronic Personal Health Record

- NHIN network of networks
 - Planned health records exchange for shared care patients
 - Anticipated demonstration of NHIN capabilities
 - Collaboration with NHIN participants on standards for interoperability

- Common standards nationwide
 - Collaboration on standards with other care delivery organizations and industry partners
 - Extensive resources committed to national and international health care standards development
 - Active efforts to deploy recognized national standards for federal use cases

- HIPAA Administrative Simplification, transactions and codesets – Centers for Medicare and Medicaid Services (CMS)
- HIPAA Privacy – Office of Civil Rights (OCR)
- HIPAA Security – CMS with additional guidance from National Institute for Standards and Testing (NIST) and Department of Homeland Security (DHS)
- State implementations and extensions of HIPAA, particularly for privacy and security
- Patient Safety – Agency for Health Research and Quality (AHRQ)
- Quality reporting – CMS, AHRQ, National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS)
- Research – National Institutes of Health (NIH), AHRQ
- Clinical Laboratory Improvement Amendments (CLIA) and Electronic Lab Results – CMS and the states
- Privacy of group plan health records - Employee Retirement Income Security Act (ERISA)
- Health Care Standards – CMS/NCVHS (HIPAA), AHIC/HITSP (non-HIPAA)
- Medicare, FEHB, NHIN and other contracts – ONC, OPM, CMS
- Medical terminology, vocabulary and codesets – CMS, NIH, AHRQ, NLM, ONC
- State law and state regulations frequently stricter than federal in privacy, security etc.
- State insurance regulation, medical licensing and practice regulation
- State Medicaid oversight

HIPAA Status Of Independent Commercial And Consumer Agents



- Types of non-HIPAA-covered entities of concern - examples:
 - Operators of health-related data warehouses and web sites
 - Health records aggregators, sponsors and vendors of personal health records systems and health records platforms
 - Health information exchanges and networks with patient-related data repositories
 - Manufacturers of biomedical devices that use electronic health data
 - Durable medical equipment vendors and other non-covered provider types
 - Quasi-regulatory, certification, quality and population health entities
 - Other entities with persistent databases of personal health data regardless of source
- Reasons for concern
 - Consistent minimum privacy and security technical standards and technical rules for all entities retaining patient health data or engaged in health database operations
 - Consistent baseline of minimum consumer protections for all health care data
 - Consistent rules for secondary uses of patient health data
 - Consistent enforcement and consistent remedies
- A HIPAA-covered status for these entities would accomplish the following:
 - Provide consumer protections under the extensive existing framework
 - Level the competitive playing field
 - Better make the consumer benefits of health IT available to all
 - Ensure the costs of innovation are shared across all stakeholders in health care

- Balancing the needs of diverse stakeholders with limited resources: consumers, providers of care, hospitals, vendors, and health plans
- Balancing the rights of consumers to take control of their personal health information with the need for that information in clinical decision-making and with the related medical liability
- Balancing implementation of security and privacy protections with innovation time-to-market
- Balancing cost and affordability against the benefits of advanced technical capabilities