Kaiser Permanente HealthConnect™ Implementation

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Agenda

• About Kaiser Permanente
• Kaiser Permanente Before KP HealthConnect
• KP HealthConnect Deployment
About Kaiser Permanente

- Nation’s largest nonprofit health plan
- Integrated health care delivery system
- 8.4 million members
- 12,000+ physicians
- 140,000+ employees
- 8 regions serving 9 states and D.C.
- 30 hospitals and medical centers
- 431 medical offices
- *$28 billion annual revenues

* 2004 revenues

[Map showing states served by Kaiser Permanente]
Our Structure

Kaiser Foundation Health Plans
Nonprofit, public-benefit corporations that contract with individuals and groups to arrange comprehensive medical and hospital services. Kaiser Foundation 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; owns 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. Each region has its own Permanente Medical Group. The Permanente Medical Groups assume full responsibility for providing and arranging necessary medical care in each region.
Our Mission

To provide affordable, quality health care services and to improve the health of our members and the communities we serve.
Before KP HealthConnect (circa 2002)

- Nine silos (8 regions + national)
- No common platform
- Numerous disparate IT systems
- Limited standard data elements
- Expensive IT maintenance costs
- Region (physician) owns the paper medical record
- In 1999, began to build a nationwide Clinical Information System (CIS)
Make vs. Buy Decision

- CIS strategy was risky and expensive
- Epic offered much broader integrated applications portfolio including outpatient, inpatient and practice management, web interface for members and providers, reporting capability
- Ten-year costs were substantially less than a build and maintain strategy
- Total involvement converted a push strategy to a pull strategy
Why We Chose Epic Systems

• Epic’s solution ranked highest in our technology review.
• Epic had the best track record for implementation and partnering.
• Integration less complex because elements are already in use in certain regions within the Kaiser Permanente system.
• Epic eliminates redundant entry, thus eliminating more work steps, increasing operational efficiencies and improving customer service.
• Epic had the highest industry rankings for relationships and commitment.
• Epic was most closely aligned with Kaiser Permanente’s program strategy.
Kaiser Permanente HealthConnect™

- More than just an electronic medical record
- The development and deployment of a highly-sophisticated information management and delivery system
- A program-wide system that will integrate the clinical record with appointments, registration and billing
- A complete health care business system that will enhance the quality of patient care
# Kaiser Permanente HealthConnect™ Goals

## Quality Our Patients Can Trust

**High Quality**
- We have clinical information available 24/7.
- Our clinical outcomes are unsurpassed.
- Our clinicians know in real-time the recommended best practices.
- We are the national leaders in patient safety.
- We enhance our research to support evidence-based care.

## Personal & Convenient Service

**Personal**
- We have and use up-to-date clinical, social and patient preference information.
- We provide patients information for shared decision making.
- We enhance personalized care.

**Convenient**
- Our patients access information via telephone, Web and email.
- We actively support our patients’ participation in their own care.
- We minimize wait times and out-of-pocket costs with efficient access to care.
- We achieve superior integration and continuity of care.

## Affordable Health Care

**Affordable**
- We reduce the cost of care and improve visit experiences.
- We eliminate waste associated with paper medical records and missing medical records.
- We eliminate costly in-person services unless medically necessary or desired by the patient.
- We streamline IT and administrative processes and costs.
**Blue Sky Vision Themes**

**2015: care delivery model is consumer-centric**

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**Home as the Hub**
- The home, and other settings, will grow significantly as a locale of choice for some care delivery (diagnostics).
- An individual’s care delivery support system has expanded to explicitly include other community and family resources.

**Integration and Leveraging**
- Medical services are integrated with wellness activities; care delivery processes are integrated with health plan operations.
- IT functionality enables us to leverage scarce or specialized clinical resources - MDs, RNs and other clinical staff.

**Secure and seamless transitions**
- ‘Warm Handoffs’ - The human skill sets and operational processes to deliver care and service effectively, efficiently, and compassionately.

**Customization**
- Occurs at any level of the members’ journey with KP (choosing health plans, cost sharing, individual care pathways, and communication modalities.)
- The member drives customization and KP responds.
Self-monitoring with patient-based decision support

- They are already on their own most of the time

The care team

- Is notified of patient decisions
- Receives all data, but attention is only drawn to data requiring a decision from the team

The office visit no longer defines the core activity of the primary care physician, true panel management does

Systems will

- deliver and maintain the decision support tools for patients
- Sort through and prioritize incoming data
- Provide horizontal views of an individual patient and aggregate views of populations and subpopulations
- Allow for easy intervention at the population level
Secure and Seamless Transitions

The patient will not bear the responsibility for system navigation

- Some transitions will be automated based on evidence
  - Example: a patient drops below an LVEF threshold for the first time, automatically triggering a cardiology referral, any indicated further tests before the referral, and an email to the patient helping them to make the appointment unless the APC doc chooses to redirect

The care team will not have to remember the navigation rules

- This “business intelligence” will be built into the system
Patients will choose how they want to communicate with the care team and the system will know that.

Information delivered to patients can be tailored to their problems and social history and circumstances:

- An Enterprise Data Warehouse will help us craft a Life Care Plan for every member, based on everything we know (and some things other organizations know).
- The Life Care Plan will be actionable by the patient as well as the health care team.

Mass communications to populations can be customized to each individual within the population:

- Example: “.lastlab” within a letter.

Pre-visit questionnaires can result in better focus during a visit.
Integration and Leveraging

Scarcer adult primary care physicians will be more leveraged

- More support staff doing more things for physician review
- NB: regulatory changes may be crucial here—the licensing world has to catch up with the capabilities of the new information world, and we should direct lobbying efforts toward that end
- Manage the panel, not results and messages layered on to a day filled with visits
Panel Members are in Control

Don’t devote resources to being at war with members in “trenches”

The system will let them control the simple transactions

- Appointment making (just like the airlines)
- Lab and imaging results review
- Managing their illness according to guidelines
- Communicating with the team asynchronously—a huge potential time saver and satisfier for them and for the clinician

Take those resources not devoted to these functions and use them for communication management, panel management, and “outlier management”
Scope of Kaiser Permanente HealthConnect™

### Ancillaries
- Outpatient Pharmacy
- Lab
- Radiology/Imaging
- Others (Immunizations, EKG, dictation)

### Care Delivery Core
#### Scope of Epic Suite
- **Outpatient**
  - Scheduling
  - Registration
  - Clinicals
  - Billing
- **Inpatient**
  - Scheduling
  - Admission, Discharge and Transfer
  - Clinicals
  - Pharmacy
  - Emergency Department
  - Operating Room
  - Billing

### Health Plan
- Membership/Benefits
- Claims Processing
- Benefits Accumulation
- Pricing System

### Finance
- General Ledger
- Capital Planning
- Financial Reporting

Data Warehouse / EDR Enterprise Data Repository
# Regional Go-Live Schedule – KP HealthConnect

**As of 3-31-06**

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*FOR INTERNAL USE ONLY*

http://kpnet.kp.org/kphealthconnect/pc/rcoordinator.htm
Objectives

Deploy the Epic suite of products in a multi-facility, multi-state system within four years
Challenges

System capability needed to:

- Share data and move information across 18 instances in 8 regions real time
- Provide a consistent data model to populate a national data repository to support all reporting needs
- Reduce variation and provide evidenced-based clinical decision support and documentation
- Share successful work practices across the country to streamline internal processes and reduce work variation
Challenges

Success is...

- A clear plan for change and operationalized use of the Epic system.
- Business goals enabled by the Epic system
- Higher quality, more efficient, effective operations
- Sponsorship / leadership

Formidable
Leadership & Regions’ Responsibility

Demanding
Regions’ Responsibility with help from National Project Team

Difficult
Vendor / Project Team/ Regions Responsibility

- Effectively trained users
- Consistent and complete system use
- Ease of use
- Program-wide system
- Reliable, consistent and maintainable
- Robust functionality

Get Value from KP HealthConnect

Implement KP HealthConnect

Collaborative Build
Areas of Risk

Project management
Infrastructure capacity
Insufficient implementation support or ongoing support
Focus on goals—
  - Implementation
  - Benefits realization
Leadership
Approach to Implementation

Collaborative Build
- Fully Integrated System
- Integrated Workflow
- Common Data Definitions & Model
- Common Interfaces

Regional Deployment
- Business Process Redesign
- Regional Modifications and Mapping to Collaborative Build
- Order of Epic application deployment based on regions’ priority and business case
Approach to Implementation

- Critical physician leadership and participation
- Common system elements developed on a national collaborative basis
- Additional regional choices made to reflect workflows
- Implementation strategies developed and supported jointly
- Continuous evaluation and learning
- Strong emphasis on capturing benefits
KP HealthConnect meets national and international standards for the transmittal and storage of health data:

- HL7
- SNOMED-CT
- LOINC
- RXNORM
- NIC
- NOC
- NANDA
- DICOM, etc.
With KP HealthConnect (circa 2006)

- **Collaborative culture**
  - Focus on sharing and leveraging lessons learned
  - Quarterly interregional deployment meetings
  - KP HealthConnect Users’ Conference

- **One technology platform**

- **Integrated systems** *(inpatient/outpatient and inter/intra-region)*

- **Standardizing data elements**

- **Retiring expensive legacy IT systems**

- **Member owns the medical record!**
Current Status

Collaborative build completed in October 2003
18/18 scheduled deployments completed in 2004
Care Everywhere (synchronization) software successfully deployed in both California regions in 2004
23 deployments scheduled for 2005—22 completed. Initial deployments of inpatient clinicals in California delayed due to data center availability problems
By end of first quarter 2006, the Practice Management Suite is 100% deployed, Outpatient Clinicals is 60% deployed, and Inpatient Clinicals is about to be deployed—we are meeting a schedule that no one in the industry believed possible
Web functionality for members will be deployed in all regions except Ohio by Summer of this year
Several regions are embarked on optimizing use of the system
Members Can Actively Participate in Care

Expanded Online Access for Members

Access medical record
Make/change appointments
Send email to doctor
Check lab results
Access health information
Review eligibility & benefits
Account summary

Care Delivery Core

Scope of KP HealthConnect Suite

Outpatient

Inpatient

Scheduling
Admission, Discharge And Transfer
Registration
Clinicals
Pharmacy
Clinicals
Emergency Department
Billing
Operating Room
Billing

www.kp.org
Member Web Portal
Lessons Learned

• Consistency and local modification need to be balanced
• Centralized control vs. local autonomy
• IT is the “great magnifier”
• Integration into the basic work is critical
• IT system drives massive change
• Operational leadership is essential
How does it work?
How does it work?
How does it work?
How does it work?
How does it work?
How does it work?
Questions?