

## How To Successfully Implement an EHR and Other Health Information Technology

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## The New Millennium

- Quality Chasm Exposed
- Cost Inflation Resumes
- Consumer Driven Health Care
- Primary Care Under Stress
- The Decade of Health Information Technology and Transformation in the Process of Care
- The Transformation of Family Medicine?

## What doctors say

- A growing feeling of loss of control over the practice of medicine.
- A sense of being buried under administrative overhead, especially paperwork.
- Unable to access the people, information or other resources they need in order to provide quality care in a time-constrained environment.

## HHS Decade of Health Information Technology

- Inform Clinical Practice at the Point of Care by Implementing EHR Systems
- Interconnect Clinicians with an Interoperable Health Information Infrastructure
- Personalize Care Using Health IT to Give Patients More Access and Responsibility For Care
- Improve People's Health by Using Health IT to Monitor Public Health, Measure Quality and Move Research into Clinical Practice

## QUALITY HEALTH CARE FOR THE 21<sup>ST</sup> CENTURY

- Freedom From Error
- Consistent Best Practice
- Great Service

### Increased Chronic Care Needs

- About 100 million people (40% of population) have one or more chronic conditions
- Chronic conditions account for more than two-thirds of health care expenditures (Robert Wood Johnson Foundation, 1996)
- 80/20 Rule: Limited number of conditions account for most of these health care expenditures

## The Big Transition in Process of Care

### Old Practice

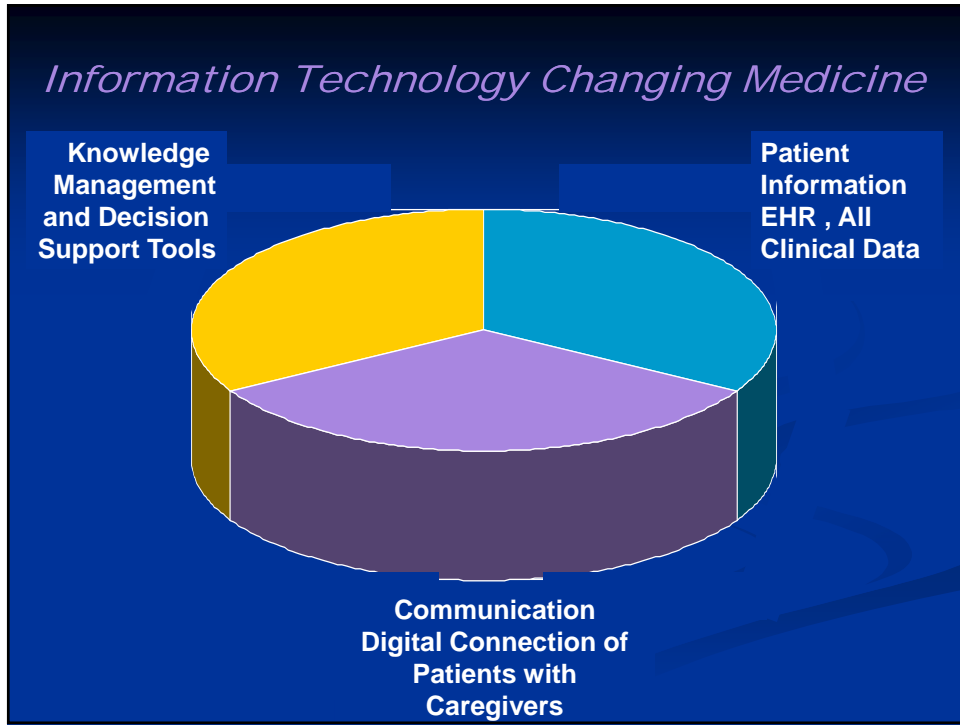
- Scattered Paper Charts
- Episodic Brief Visits
- Physicians working off the top of their heads

### New Practice

- Single Electronic Record
- Continuous Access to Services
- Clinical Decision Support

## Three Big Impacts Of Information Technology on Medical Practice

- Knowledge Management/Clinical Decision Support
- Electronic Patient Records
- Online Communication



## Electronic Health Records

- **First Generation** – electronic charting, not web-enabled, not intelligent
- **Second Generation** – Web-enabled, with patient access
- **Third Generation** – “Intelligent” records with imbedded clinical decision support

## HIT Functions

- **Patient Registry** – needed for quality reporting and P4P
- **eRx** – needed for avoiding medication errors
- **EHR** – needed for organizing and accessing patient data
- **Clinical Decision Support** – needed for smart practice and avoiding medical errors
- **Patient Portal** – needed for continuous access for communication and care

## Office Decisions

- ASP vs Server
- EHR in Exam Room – tablet, laptops or work station
- Make the EHR in the office patient centered – patient able to see the screen
- Train for putting the patient first and not the EHR

## Case Study



## Case Study – Best Practice Medical Group

- **Best Practice Medicine Group (BPMG)** decides it is time to get an electronic health record (EHR). They ask around and one of the partners goes to a local trade show for EHRs. He likes a record that looks a lot like traditional patient charting and is one of the least expensive. He recommends this EHR to the group. Is this a good decision?

## Case Study

- After 18 months using the I Love My Record EHR, BPMG finds out that the record system does not help with the new Pay for Performance quality reporting program recently launched. What should they do?

## Case Study

- Six months after BPMG launches a patient registry function, Medicare decides that all participating providers must to electronic prescribing (eRx). BPMG lacks this function. What should they do?

## Case Study

- BPMG decides to change to a different EHR, more expensive but has the patient registry and eRx functions they now require.
- How will they convert from their old EHR to a new one?
- This EHR is more complex, how much training should they do on the record before the conversion?
- Should they get used to the EHR incrementally with some physicians and some functions, or all convert totally at once?

## Case Study

- BPMG has a successful launch of their new EHR. After two months most physicians are satisfied, although the use of the EHR functions varies within the group. What should BPMG do to ensure that there is continued improvement in using the EHR?

## Clinical Decision Support

- Templates for guiding care and more complete documentation – no fraud!
- Imbedded Prevention Guidelines
- Drug-Drug and Drug-Disease Interactions (levels of alert so that critical alerts are not ignored)
- Clinical Guidelines imbedded at the point of care

## Case Study

- BPMG has the option of adding a Patient Portal to their EHR to allow for secure online communication with patients.
- How should they decide this?
- What are the financial options to help pay for this service?
- What services should they provide online?
- What group policies should be in place to ensure success?

## Why Online Communication?

- It is asynchronous
- It has enormous reach
- It is robust. You can:
  - exchange and store information
  - provide services
  - connect people
- Communication can be tracked, managed, documented, and evaluated
- It is secure

## The New Communication Platform

- Use Online Communication For:
  - Lab Results And Other Data
  - Chronic Illness Care
  - Behavioral Coaching
  - Minor Acute Problems
  - Answer questions
  - Share information from the practice
  - Online Family Meetings

## LDL Management May Be Easier With E-Mail

- Family Practice News, July 1, 2004
- William T. Lester
- Randomized Trial at Mass Gen Hosp
- Better Management
- Fewer Visits

## Online Communication Options

- Regular E-mail with patient acceptance of the privacy and a confidentiality statement with each message. Copy and paste into the record.
- Secure E-mail through a Web Based application protected by firewalls and encryption. Copy and paste into the record
- Patient Portal imbedded into the EHR

## Financial Models for Online Communication

- Shift of telephone to E-mail (time saver, \$ neutral)
- Reduce unnecessary visits (more \$ in high demand office, less \$ in lower demand)
- Payment for virtual care (eVisit Charges)
- Prepaid service fee, monthly (\$30) or annual (\$360)
- Prepaid Contracts
- Pay for Performance incentives

## Successful EHR Implementation

- Selection based on function and service support. Plan to finance this.
- Planning for the transition
- Training before go live
- Big bang or gradual execution
- Early support for rapid growth and success
- Continued support for kaizen

**The Complexity Of Modern  
Medicine Exceeds The Inherent  
Limitations Of An Unaided Human  
Mind**

**David Eddy, M.D.**

## A New Model of Office Practice

- 50% more caring interactions each day
- 10-12 unhurried office visits each day
- Advanced access – do today's work today
- Patients get all the time they need
- Patients receive the latest treatments

## Getting Paid For Online Communication With Patients

- Some insurers are reimbursing for it – new CPT code for e-mail began in 2004, telephone visits in 2007
- Charge patients monthly or annual fee for online services
- Capitation or prepaid contracts may be more profitable with care no longer depending on visits

# Young Can't Imagine Life Without Online Access

Martha Irvine  
Associate Press  
December 5, 2004

# Finances Follow Innovation and Greater Efficiency

## Diffusion of Innovation

- Innovators – 15 %
- Early Adopters – 35%
- Late Adopters – 35%
- Laggards – 15%

## Kaiser Permanente HealthConnect

24 Hour Access to Accurate and  
Comprehensive Health Care  
Information and Services

## Health Care Will Become Continuous

- Health Care Over the Internet Will be the Greatest Disruption of our Age
- Patients Will Drive the Innovation
- Patients Will Have Their Medical Records
- Patients Have Access to All Medical Information
- Patients Will Communicate Far and Wide for Care
- What Will They Get From You?

## Getting to a Quality Driven Practice

Easy stuff  
Less commitment

- Attend meeting to learn
- Join an email discussion group

- Incremental improvement of office systems
- Redesign subsystems

Difficult  
Deep commitment

- Redesign of all systems



## Old Clinical Model

- Patient History
- Physical Examination
- Laboratory and X-ray Testing
- Diagnosis
- Treatment including Patient Education

## New Clinical Model

- Patient Education and Care Begins at Home by the Patient (The New First Tier)
- Informed Patient Provides History and Other Information
- Physical Exam and Needed Testing
- Diagnosis and Treatment

## A New Vision of Family Medicine

- Responsibility for a Population of Patients
- Manage Needs and Demands on a New Platform of Services (Web Based)
- Prioritize Conditions and use a Team Approach
- Take the Time to be Effective (Time to Heal)
- Change the Concept and Application of Productivity

## How?

- An interactive practice website is a new platform of communication
- 40-60% of patient needs handled online
- Electronic medical record with imbedded knowledge management tools
- Great service

## Idealized Micropractice

- Pioneered by Gordon Moore
- Growing very fast in Family Medicine
- Convocation at AAFP
- Liberation and Great Enthusiasm
- Personalized Medical Practices
- Concierge Care for Everyone

## Greenfield Health

- 9 FPs and IMs Practice in Portland, OR, 2 offices
- Chuck Kilo as Leader (IHI Experience)
- Interactive Website, Web Messaging, Telephone and Selective Use of Office Visits
- Physician Spends Half Day Seeing Patients – Visits 30 Minutes or Longer
- Half Day Messaging
- Volume is 20% Visits, 40% Telephone, 40% Web Messaging
- Annual fees range from \$195 to \$495 depending on age

## Three Stages of Physician Change

- That is really stupid – It won't work
- It won't work
- It was my idea

## The Internet Changes Everything

- Google – 1 billion searches a day, 1/3 in US and less than half in English
- Wikipedia – Jimmy Wales, “every single person free access to the sum of all knowledge”
- Revolution Health
- A Globally Connected World Community
- The Geek Corps

## The Secret Sauce for Successful Redesign

- Care becomes continuous access rather than episodic
- Care becomes proactive rather than reactive
- Patients become activated for self-management