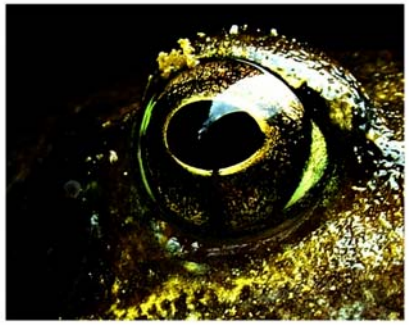
Meeting Quality Standards with the Next Generation of EHRs

4th National HIT Summit

March 30, 2007

Michael S. Barr, MD, MBA, FACP
Vice President, Practice Advocacy & Improvement
Division of Governmental Affairs & Public Policy
American College of Physicians
Email: mbarr@acponline.org
Phone: 202-261-4531

What Is the Definition of Quality?



Doing it right when no one is looking.

Henry Ford

What Should EHRs Facilitate?

- Clinical care
  - Clinical decision support
- Documentation/Coding
- Data reporting
  - Retrievable
  - Reportable across conditions
  - Identify groups and subgroups
- Improvement

Barriers to Health Information Technology Adoption for Quality

- Cost
- Lack of financial incentives*
- Complexity of systems (lack of standards)
- Privacy, confidentiality and security
- Legal issues (e.g., Stark laws; medical liability)

*Most important factor

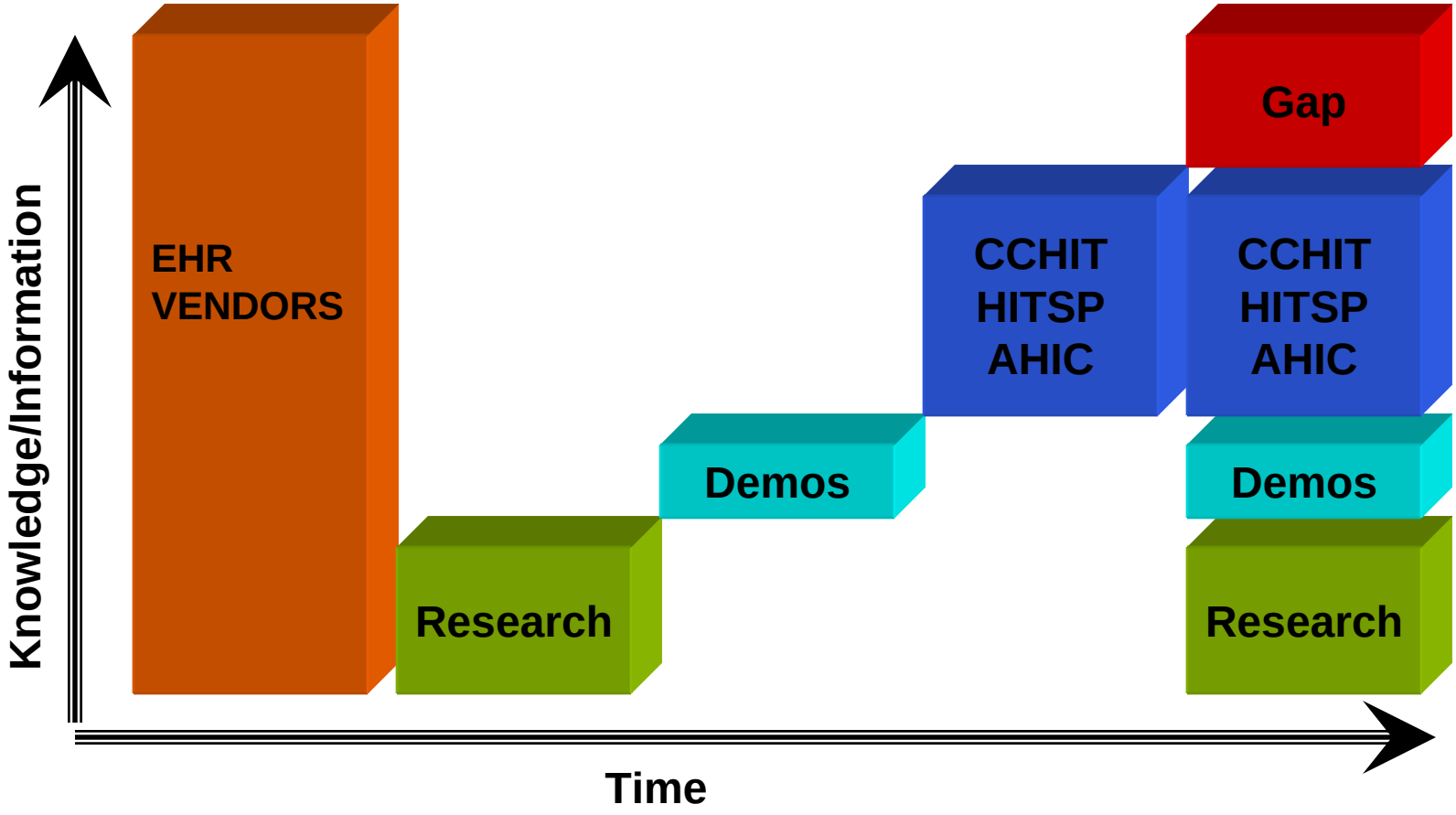
Bates, D: The quality case for information technology in healthcare

BMC Medical Informatics & Decision Making 2002, 2:7

The Local Environment: Redesign Challenges in the Office

- Practice environment
  - Financial (cost)
  - Personnel/Staffing
  - Technology limitations
- Knowledge/Awareness
- Skills
- Motivation

Asymmetric Information Leads to Caution...But Opportunities to Narrow the Knowledge Gap*



*Not drawn to scale...

Center for Practice Innovation
American College of Physicians

Operations Issues

- Communication (dis)connections
  - Internal and external
    - Difficulty obtaining information from specialists and hospitals
- Medical records risks
- Practices generally do not use two identifiers on all patient-related materials (paper charts)
- Sample medication storage is variable and logs for sample distribution are rarely used

HIT Issues

- Even EHR-enabled practices still use paper
- EHR work-arounds abound
- e-Rx implementation issues
- Registries: Most practices (paper & EHR) are not able to aggregate data by condition for use in clinical quality improvement
- Lab interfaces are difficult to establish for many practices
- Scanning documents is often not as helpful as initially thought

Summary of CPI Observations

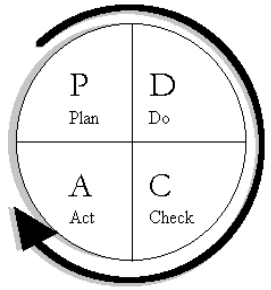
- Effective practices have well-trained and empowered non-clinician leader
- Information, idea and training gaps
- Multi-tasking is taken to a new art form
- Health IT not the panacea most hope it would be
  - Practices haven't maximized the use of paper
- Practices are generally motivated and interested, but challenged to find time to fix the issues that are stealing their time

www.fivelaws.demon.co.uk/vicious_circle.jpg

Patient-Centered Medical Homes

- Organize the delivery of care for all patients according to the Care Model
- Use evidence-based medicine and clinical decision support tools
- Coordinate care in partnership with patients and families
- Provide enhanced and convenient access to care
- Identify and measure key quality indicators
- Use health information technology to promote quality, safety & security of information
- Participate in programs that provide feedback on performance & accept accountability for process improvement and outcomes

Practice Evolution…



EMR = Electronic Medical record

HIE = health information exchange

CDS = clinical decision support

e-Rx = electronic prescribing

PDA = personal digital assistant

SMGs = self-management goals

PHR = personal health record

Limited data review >> Dashboard >>> Benchmarking >>> Reporting

Visit-based care >>> Scheduled phone/email >> Remote monitoring

Appts. by Phone >>> Advanced Access >>> PHR + Web-based portal

Pre-Printed Education >> Computer-generated >> Customized + SMGs

Books/charts >>> Handheld PDA >>> EMR + CDS

Rx Pad/Pen >>> e-Rx (alone) >>> EMR+eRx

Flow sheets >>> E-registry >>> EMR >>> HIE

NCQA Physician Practice Connections - Not Condition-Specific

Summary Table, Physician Practice Connections Version 2

PPC	Standard and Element Titles	Element Points	Standard Points
PPC 1	**Access and Communication**		
PPC 1A	Access and communication processes	4	
PPC 1B	Access and communication results	4	
	Total Points for PPC 1		8
PPC 2	**Patient Tracking and Registry Functions**		
PPC 2A	Basic system for managing patient data	2	
PPC 2B	Electronic system for clinical data	3	
PPC 2C	Use of electronic clinical data	3	
PPC 2D	Organizing clinical data	6	
PPC 2E	Identifying important conditions	4	
PPC 2F	Use of system for population management	2	
	Total Points for PPC 2		20

http://www.ncqa.org/ppc/PPCStandards_06.pdf

PPC Continued...

PPC	Standard and Element Titles	Element Points	Standard Points
PPC 3	**Care Management**		
PPC 3A	Guidelines for important conditions	3	
PPC 3B	Preventive service clinician reminders	4	
PPC 3C	Practice organization	3	
PPC 3D*	Care management for important conditions	5	
PPC 3E	Continuity of care	5	
	Total Points for PPC 3		**20**
PPC 4	**Patient Self Management Support**		
PPC 4A	Documenting communication needs	2	
PPC 4B	Self-management support	4	
	Total Points for PPC 4		**6**
PPC 5	**Electronic Prescribing**		
PPC 5A	Electronic prescription writing	3	
PPC 5B	Electronic prescribing interoperability	3	
PPC 5C	Prescribing decision support—safety	3	
PPC 5D	Prescribing decision support—efficiency	2	
	Total Points for PPC 5		**11**

PPC Continued...

PPC	Standard and Element Titles	Element Points	Standard Points
PPC 6	**Test Tracking**		
PPC 6A	Test tracking and follow up	6	
PPC 6B	Electronic system for managing tests	6	
	Total Points for PPC 6		**12**
PPC 7	**Referral Tracking**		
PPC 7A	Referral tracking	4	
PPC 7B	Referral decision support	3	
	Total Points for PPC 7		**7**

PPC Continued...

PPC	Standard and Element Titles	Element Points	Standard Points
PPC 8	**Performance Reporting and Improvement**		
PPC 8A*	Measures of performance	3	
PPC 8B	Reporting to physicians	3	
PPC 8C	Setting goals and taking action	3	
PPC 8D	Reporting standardized measures	2	
PPC 8E	Electronic reporting—external entities	1	
	Total Points for PPC 8		**12**
PPC 9	**Interoperability**		
PPC 9A	Use of prescribed standardized codes	1	
PPC 9B	Electronically receiving data	1	
PPC 9C	Electronically transmitting data	1	
PPC 9D	Using data for referral reports	1	
	Total Points for PPC 9		**4**
	Total Points for Program		**100**

Partial EHR “Wish-List”

- Prompt collection of key data elements through multiple methods
- Provide for data entry by multiple sources (patient, family – if permitted by patient; staff; populated by filtered claims)
- Present data in standardized format
- Prompt for missing data based on clinical diagnoses
- Pre-visit presentation of data based on schedule; facilitate team huddle
- Context sensitive clinical decision support that incorporates patient-specific preferences expressed through structured queries of patient and advance directives
- Automated presentation of patient clinical data versus benchmarks
- Economics/costs – transparency; presentation of data to both patient and clinical team

EHR - Poka-yoke

- **Poka-yoke** - pronounced "POH-kah YOH-keh" means "fail-safing" or "mistake-proofing" — avoiding (*yokeru*) inadvertent errors (*poka*)) is a behavior-shaping constraint, or a method of preventing errors by putting limits on how an operation can be performed in order to force the correct completion of the operation. The concept was originated by Shigeo Shingo as part of the Toyota Production System. Originally described as *Baka-yoke*, but as this means "fool-proofing" (or "idiot proofing") the name was changed to the milder *Poka-yoke*. One example is the inability to remove a car key from the ignition switch of an automobile if the automatic transmission is not first put in the "Park" position, so that the driver cannot leave the car in an unsafe parking condition where the wheels are not

  locked against movement.

  http://en.wikipedia.org/wiki/Poka-yoke

Questions?