Are you Ready for EHRs?
How to Make that Assessment

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OBJECTHealth
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AHRQ’s National Resource Center for Health Information Technology
PATHWAY TO HEALTHIER COMMUNITIES

HEALTHIER PATIENTS, HEALTHIER COMMUNITIES

- Improved Patient Safety
- Reduced Disparities
- Increased Efficiency
- Improved Preventive Care

DATA ANALYSIS: More Targeted Outreach • Improved Population Management

Health Information Technology
PATHWAY TO HEALTHIER COMMUNITIES

DATA ANALYSIS: More Targeted Outreach • Improved Population Management

E-Rx  Disease Registries  CPOE  EHR

HEALTHIER PATIENTS, HEALTHIER COMMUNITIES

★ Improved Patient Safety
★ Reduced Disparities
★ Increased Efficiency
★ Improved Preventive Care
★ Improved Quality of Care
★ Improved Provider and Patient Satisfaction
What is an EHR vs. EMR vs. CPR?

- **Electronic**, patient-centric clinical record of care encounters to support care processes
- **Longitudinal** across providers, care settings and time
- Enables **clinical communication** and **patient care planning**
- **Accessible** by authorized healthcare practitioners serving the patient
- Enables continuing education and **decision support**
- Documents specific **services received** by the patient for **legal** and **reimbursement purposes**
- Source of data for **clinical, health services, outcomes research, and public health**

Why EHR now?

Bush praised computerized records as a way to avoid medication errors, cut costs and improve care. Promises to have EHRs in 10 years.

Hillary Clinton and Bill Frist introduce legislation to encourage development of a national health information infrastructure including adopting electronic records.

IOM calls EHRs an “essential technology” to enable patient safety.

AHRQ grants awarded to demonstrate value of health care IT.

Pay-for-performance programs are becoming more common and doctors are being asked to “demonstrate quality outcomes or consistent practices” – BTE.

President Bush appoints David Brailer as the first Health IT Czar.

Kennedy announces health care plan.

...unprecedented enthusiasm and commitment for changing the day-to-day world of health care with HIT from leadership across sectors. - David Brailer, National Coordinator for Health Care Information Technology.

Source: iHealthBeat.org, Object Health research
Health Care Delivery Landscape

- Incomplete knowledge of patients
  - Patient data unavailable in 81% of cases; average of 4 missing items per case
  - 18% of medical errors are due to inadequate availability of patient information

- Patient safety & Medical errors
  - Patients receive only 55% of recommended care
  - 44,000 – 98,000 annual inpatient deaths due to a preventable medical error
  - Medication errors in 5 – 18% of ambulatory patients; resulting in 1 in 131 deaths

- Increasing complexity of clinical care
  - 17 years to translate medical research into medical practice
  - Physician Desk Reference more than doubled in 20 years to 3,075 pages

- Increasing cost of care
  - 5th consecutive year of double-digit growth in health care expenditures
  - 30% of health expenditures categorized as “unnecessary spending” = $7.4 trillion aggregate in US from 2004 - 2013

Source: iHealthBeat.org, Object Health research
## Barriers to EHR Adoption

<table>
<thead>
<tr>
<th>Barrier to Adoption</th>
<th>Explanation</th>
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| **Cost of adoption** | ▪ 3 major studies found as #1 barrier  
▪ Initial capital and on-going cost exceed financial benefit to physician user |
| **Clinician support** | ▪ Clinician resistance  
▪ Additional time required for patient care |
| **Early stage development of commercial products** | ▪ “Even highly-regarded, industry-leading EHRs to be challenging to use because of the multiplicity of screens, options and navigational aids.” |
| **Practice transformation changes** | ▪ Significant operational modifications are key to realizing value of EHR technology |
| **Low level of electronic data exchange and lack of standards** | ▪ Result in high-cost interfaces  
▪ Result in duplicative processes due to lack of widespread adoption (i.e. paper and electronic) |

EHR Value Proposition

Savings Generated from EHR

- **Clinical Automation**
  - Increased operational efficiencies
  - Improved communication among providers

- **Interoperability**
  - Decrease administrative burden of manual data sharing (fax, courier, mail)
  - Decrease unnecessary utilization of ancillary tests

- **Decision Support**
  - Decreased medical errors and adverse drug events
  - Improved patient compliance

Source: Object Health Research, Gordian Project Analysis
Initial and on-going costs per provider are high

- Initial: $35,000 - $65,000
- On-going: $15,000 - $30,000

Provider time investment can be high

- Impacts from 1 – 12 months post-implementation; some note ongoing increase
- Varies by provider and size of office/clinic

Financial benefits vary

- Clinic: from _none_ to $20K/FTE provider/year
- Private practice: Average of $33K/FTE provider/year due in large part to increased coding levels
- Efficiency benefits
  - Medical records, transcription, front office, billing
  - Not huge gains, hard to measure for most CHCs
  - Provider productivity – no significant shifts
- Revenue Enhancement – virtually none for CHCs, significant for private practice

Bottom Line:

- Clinics: Net on-going financial loss for most CHCs (so far)
- Private practice: Average 2.5 year payback period with some as long as nine years or never

Real EHR Benefit: Systematic Quality Improvement

Quality Improvement Opportunities

- “Low-hanging fruit” Quality Improvement
  - Better data, more legible, better organized, accessible
- Systematic Quality Improvement: harder, but many more gains
  - Requires: set targets, protocols, coding minimums; provide templates, reminders at visit, etc...
  - Real EHR payoff - for chronic, preventive care
  - QI leaders: real sense of accomplishment, momentum

Over 50% of EHR implementations have FAILED or produced suboptimal results.

Source: Department of Health and Human Services, 2005.
Top 10 Reasons for EHR Adoption failure

1. Lack of alignment with business strategy
2. Weak executive-level sponsorship
3. Underestimating impact on organization
4. No readiness assessment for change
5. Unrealistic expectations
6. Lack of an effective, cross-functional implementation team
7. No definition or measures for progress or success
8. No organized mechanism for communication and feedback
9. Lack of formal training plan
10. Lack of effective physician leadership

* EHR does not meet core provider needs

Readiness: What it Means

- “Readiness” often means “readiness to buy an EHR” or “readiness to implement an EHR”

- “Readiness” often does NOT mean “readiness to use an EHR well”
  - For chronic care and prevention, generating true value and quality improvement

- Real problem: Organizations underestimate the organizational transformation needed and how to make that happen
  - Buying the “right” EHR will solve all problems

- Organizations are making EHR commitments without sufficient knowledge or resources
  - This leads to a waste of resources, in an environment of scarce resources
Focus on Technology Only is Risky

- EHR Implementations are too often viewed as a technology project instead of a change in the way care is delivered
  - Often technology professionals – or even the “accidental techie” is in charge of product selection instead of the care team

- Experience in the field with Practice Management systems shows wide variations in using the same application.
  - Some are highly innovative and devise processes to circumvent vendor shortcomings
  - Others are reactive, responding to crises, feel they can’t trust the data, and never seem to implement advanced features
If EHR is the Answer, What is the Question?

- What is the prevalence of Hepatitis C among patients that we serve? Is it increasing or decreasing?
- How can we reduce the medication refill process from 10 steps to 4 steps?
- How many patients does my care team serve that have one or more chronic diseases?
- What is the medication compliance rate among patients with hypertension at our clinic?
- How effective have our outreach efforts been at school health fairs?
Successful EHR implementation requires:

- Effective change management
- An EHR that meets defined needs

Source: NACHC presentations, 2004, Robert Miller, UCSF, 2004 Health Affairs publication
California Community Clinic EHR Assessment and Readiness Goal: Create a Community Pathway for EHR for CA Clinics

- EHR Self Assessment
- EHR Educational Forum
- Vendor Assessment
- EHR Demonstration

Clinic Readiness → EHR barriers to adoption

Product Readiness → EHR product offerings

EHR Self Assessment

EHR Educational Forum

Vendor Assessment

EHR Demonstration
When do you think your clinic will begin the EHR planning process?

(90 Total Respondents)

Survey Response

Source: Survey of CA clinics via online survey tool, March/April 2005.
Readiness Self-Assessment Goals

- Educate users about clinic readiness requirements and success factors
- Outline in-depth, comprehensive assessment of readiness in several areas
- Provide practical information to guide clinics’ self-understanding of readiness
- Highlight general areas of capacity need
- Inform funding programs
## Readiness Self-Assessment Design

Readiness means the ability to support **selection and contracting, implementation and effective use** of the EHR product and resulting patient-specific and population data.

<table>
<thead>
<tr>
<th>Readiness Areas &amp; Categories</th>
<th>Elements</th>
<th>Not Yet Prepared</th>
<th>Moderately Prepared</th>
<th>Highly Prepared</th>
<th>Rating Column</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CULTURE:</strong> Selection &amp; Contracting</td>
<td>1.01 EHR is viewed…</td>
<td>1 . . . . . . . 2</td>
<td>3 . . . . . . . 4</td>
<td>5 . . . . . . . 6</td>
<td></td>
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<tr>
<td>1.02 The EHR planning process includes…</td>
<td>as an IT project to “go paperless” only.</td>
<td>as a clinical technology to achieve workflow efficiencies.</td>
<td>primarily as a technology to enable quality care improvement goals.</td>
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Readiness Attributes – Alignment

Organizational Alignment

- **Culture:** values; environment for achieving excellence; ability to manage change and maintain flexibility; team approach

- **Organization:** infrastructure to support information flow, decision making, and problem resolution; role of the board and leadership team; vision for quality; ability to collaborate with external organizations

- **Leadership:** the characteristics of leadership team: setting vision, commitment to quality; alignment across organization

- **Strategy:** mission and vision and priorities documented in a strategic plan; internal and external communications
Readiness Attributes – Capacity

Management Capacity

- **Information Management**: quality, accessibility, relevance and communication of data/information

- **Clinical and Administrative Staff**: staff capacity; staff training and competence; consistent policies and procedures; methods to motivate and drive individuals/groups to achieve goals

- **Accountability**: how results are achieved and mission/vision fulfilled; role and responsibility of patient in care process

- **Finance & Budget**: extent of infrastructure and management of IT budget; capital and operational resources
Readiness Attributes – Capacity

Operational Capacity

- **Workflow Process**: tools and methods for managing change, developing policies, procedures, protocols; Quality Improvement model; process for monitoring and communicating performance; analysis and actions taken to improve processes and performance

- **Patient Involvement**: preventative and chronic care processes; patient follow-up and care continuum; comprehensive care

- **Training**: Infrastructure and resources dedicated to initial and on-going IT training

Technical Capacity

- **IT Management and Support**: IT staff skill-set and capacity for IT management and support; consistent policies and procedures

- **IT Infrastructure**: information systems environment and infrastructure
Readiness Self-Assessment Use

- First step in the evolutionary learning process of EHR adoption; should be used as a tool to educate this process along with continual exploration.

- Average readiness scores are calculated at three levels of detail:
  - by category of readiness within each Readiness Area
  - by overall Readiness Area
  - by each of the four main sections

- Although these scores do not have a strict interpretation, average scores can be broadly interpreted as follows:
  - Average Score of 5.0 or Higher - A score in this range may indicate that you have a solid understanding of this particular readiness issue and may not need to spend too much additional focus to ensure success in this area. That said, ensure that you develop a comprehensive and inclusive plan around all areas of readiness through all phases of adoption.
  - Average Score of 3.0 to 4.9 - A score in this range may indicate that your organization is not as strong in this area as it could be. It is important to study the highly prepared definitions in this area to determine where to focus additional managerial and planning attention. Consider using this information to inform the process and develop a more targeted plan toward EHR adoption
  - Average Score of 1.0 to 2.9 - A score in this range may indicate that your clinic is not currently prepared to move forward with EHR adoption without increasing specific readiness in this area. In addition to using the highly prepared definitions to develop a targeted plan for this area, evaluate the need to develop a more comprehensive and inclusive plan to ensure that all areas of need are fully addressed.
Readiness Self-Assessment Tool

Soon to be available for download and for use by health care organizations only at the following site sponsored by the Community Clinics Initiative:

www.communityclinics.org
Readiness: What it Looks Like

Readiness comes at the healthy intersection of excitement and fear

Excitement: Clear vision of what’s possible.

Fear: Risk averse and better prepared.
The project that created the Readiness Self-Assessment is sponsored by the California HealthCare Foundation and Community Clinics Initiative (a joint program of The California Endowment and Tides), and managed by Object Health.

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Want to Replay This Web Conference?

- Visit [http://nrc.webex.com](http://nrc.webex.com)
  - Choose "View All Recorded Events" in upper right section of the screen
  - Select the teleconference labeled "Are You Ready for EHRs? How to Make that Assessment" and click "View"
  - You will need to “register” in order to replay the web conference
  - Web conference replay should be available approx. one week after the live conference

- For help with web conference replay, email us at ResourceCenter@norc.org
Thank You!

If you have any questions, please contact the AHRQ National Resource Center at:

healthit@ahrq.gov