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Health Information Technology: Drivers, Barriers, Benefits, Pitfalls
The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life ...

- Mark Weiser

Technology is neither good nor bad; nor is it neutral.

- Melvin Kranzberg
Information Technology

Background: a little story ...
Computing Trends
Computing Trends: Impact

• Complete transformation of many industries (almost all fields of human endeavor affected)
  – Banking
  – Retail & Trade
  – Media
  – Publishing
  – Engineering
  – Communication, Transportation, Space, Astronomy, Science, Mathematics, etc.

Change takes a while to come; but, change is sweeping.
Health Info Tech: 50 Years and Counting...

- Started 1961 (or earlier) – Akron Children’s Hospital
  – Electronic Medical Record (EMR) to save money & improve care
Adoption of EMR from 1962 to 2008 was quite low
Barriers to EMR Adoption

• Cost
  – $20,000 to $50,000 per doctor for system & software
  – Less patients for a couple of days during conversion from paper to electronic records

• Benefit and incentive perversion
  – Those benefiting the most are not the ones paying for the cost of technology adoption

• Complexity
  – No info system meets needs of some medical practices
  – No time for training, no patience for changing habits
Federal Stimulus Incentive Program

• Reimburses up to $44,000 per doctor for deployment of EMR system
  – Effective until 2014
  – Incentive tied to concept of “meaningful use” of EMR (e.g., uses not just for billing purposes)
  – Ability to share data between practice evolving
EMR Adoption by 2011

Source: New York Times

Adoption rate doubled from 2008 to 2011
Drivers for EMR Adoption

- Government
- Patients
- Cost
- Ease of Access
Your Patients

• Technology is truly woven into their lives
EMR can enable effective teamwork at lower cost
The Promise of EMR

• Lower cost of patient care
  – Most studies affirm, a few studies contradict
• Reduced error rate
  – Drug interactions, dosages, checklists, timing, etc.
• Improved quality of care
  – Easy access to an integrated view of each patient’s medical history
  – Patient involvement in care (e-Patient movement)

Doctors don’t seem to go back to paper once EMR adopted
Other Benefits of EMR

• Public Health
  – Fast mining of hospital data for information on Flu, AIDS, TB, Syphilis, Asthma, etc.
  – Monitor effects of heat waves, frigid weather and other natural phenomena
  – Spotting outbreaks of medical problems with unprecedented speed (e.g., tainted grocery, etc).

• Research
  – Trims time from weeks/months to hours/days
Pitfalls to EMR: (1) Poor Design

- Poorly designed system can get between you and your patients
  - Know what you are getting

Evaluate systems before you adopt
**Pitfalls to EMR: (2) Data Silos**

- Sharing data between disparate systems from EMR vendors & suppliers can be challenging
  - Some big national vendors of EMR include:
    - Epic, Allscripts, Meditech, Cerner, I.B.M., GE, Seimens, etc.
  - Many other smaller players (Microsoft, Google, others getting involved)
- Capabilities vary (e.g., Billing Systems vs. Integrated Patient Records)
  - Capabilities can be confusing
- Practices with multiple locations vulnerable

Understand what you are buying
Pitfalls to EMR: (3) Lack of Training

- Factor in the cost of training as you budget for EMR
- Avoid having data about your patients be a proxy for your patients

Invest time to train yourself and your staff
Pitfalls to EMR: (4) Security & Privacy

• EMR vendors can be a source of exposure
  – Huge federal fines due to breaches

Do your due diligence to protect your patients
Call to Action

• Don’t wait until it’s too late
  – Technology is not neutral!
• Take advantage of government incentive program
  – $44,000 stimulus per doctor is available until 2013 to defray the cost of your EMR adoption