Behavioral Health Electronic Medical Records (BHEMR)

Madison	Manitowoc	Milwaukee	New Richmond	Racine	Siren	Wis. Rapids

NIATx & WI-Provider Learning Collaborative Webinar

September 22, 2009

Agenda

- Introduction
- Technology
- Business Case
- Change Case
- Implementation
- Closing

Webinar Structure & Format

Challenge…

- Diverse provider position & interests
- Research deficiency, transferability (general-to-behavioral)

Scope & Content…

- Proposed scope (9/16/09 BHEMR LC Webinar Agenda)?
- BHEMR LC Survey
- NIATx BHEMR Survey
- Research literature
- Industry literature

Format…

- Dyadic vs. Experiential
- Introduction (Name, Agency, Location, Title, EMR Implementation Role)
- Recording approval

NIATx Team Background

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(Name, Agency, Location, Title, EMR Implementation Role)

Jay Ford II…

- (Add info)

Matt M. McCluskey…

- BS Mechanical Engineering, UW-Madison, 2002
- MBA Leadership/Strategy/Management, UW-Madison, 2008
- MS Healthcare Systems Engineering, UW-Madison, 2010
- Research Assistant, UW-Madison/NIATx
- Customer Service, Integration Engineering, Project Management (7 yrs)

Vision: What is tomorrow?

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Healthcare's New Disparity

''The current paper medical record is insufficient in content, format, accuracy, and accessibility to allow determination of health care effectiveness and outcomes.''

The American Medical Association[15]

On average, general healthcare information technology (IT) expenditures **double** those of behavioral healthcare…

- General = 3.5% of Total Operating Budget
- Behavioral = 1.8% of Total Operating Budget[6]

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Why Adopt HIT?
"Timing & Expectation"

- External incentives[11] & forces (HIPAA)[15]
- Federal mandate (ARRA 2014)
- Internal customers (staff)
- External customers (client/patient)

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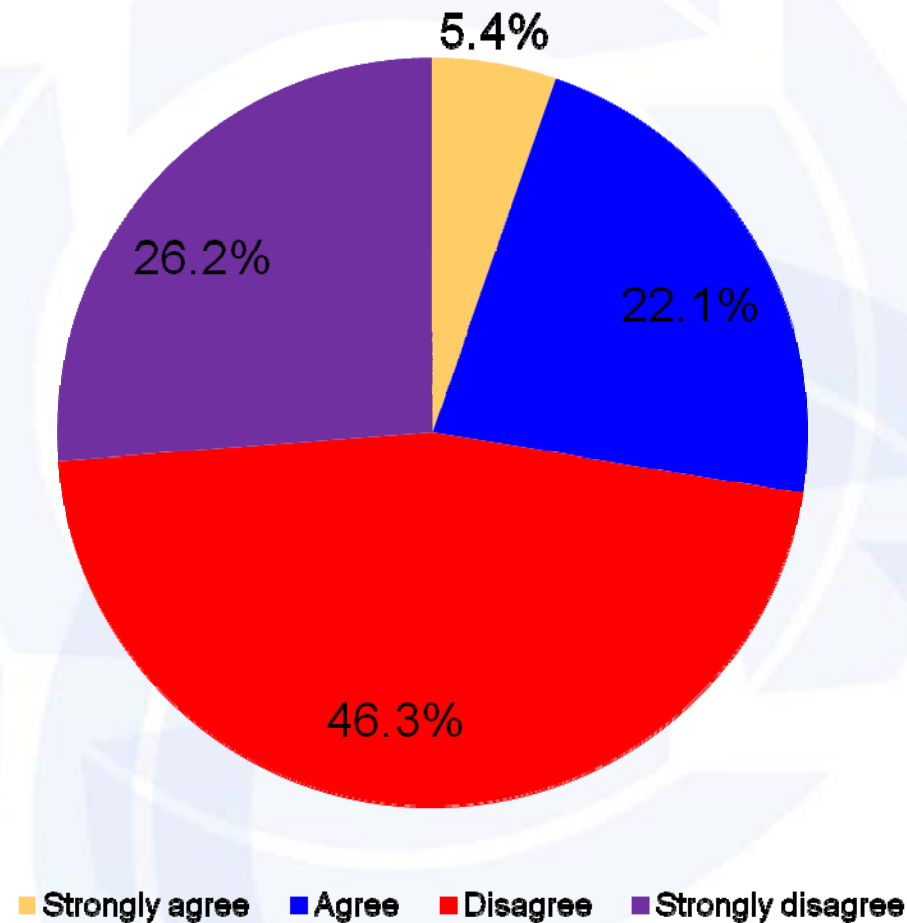
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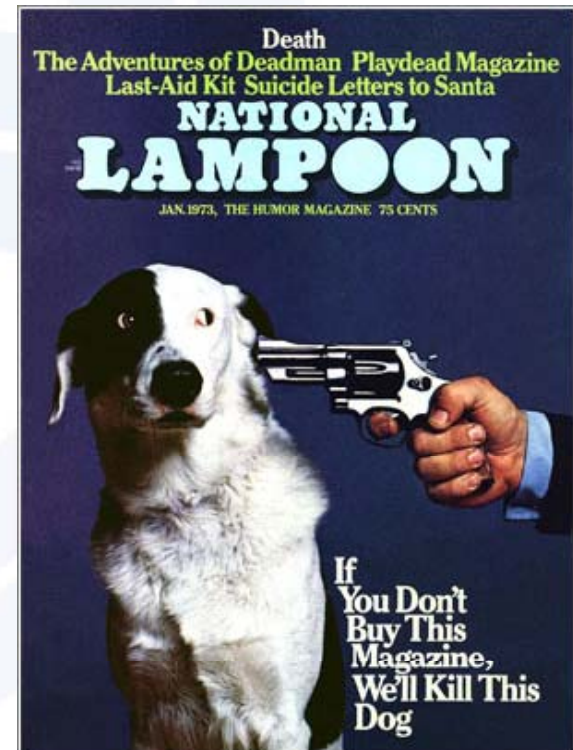
Why Adopt HIT?
"The Promise"

- Better efficiencies[18] (increased access to medical data[5])
- Better regulatory compliance (automated coding)
- Better client/patient safety & reduced errors
  - Legibility of clinical notes[3]
  - Decision-support tools, CPOE[4]
- Better health information security (encryption, access control[15])
- Better bottom-line (↑ revenues, ↓operating costs, ↑profits)
- Better competitive advantage[13]

NIATx BHEMR Survey: +Perception[19]

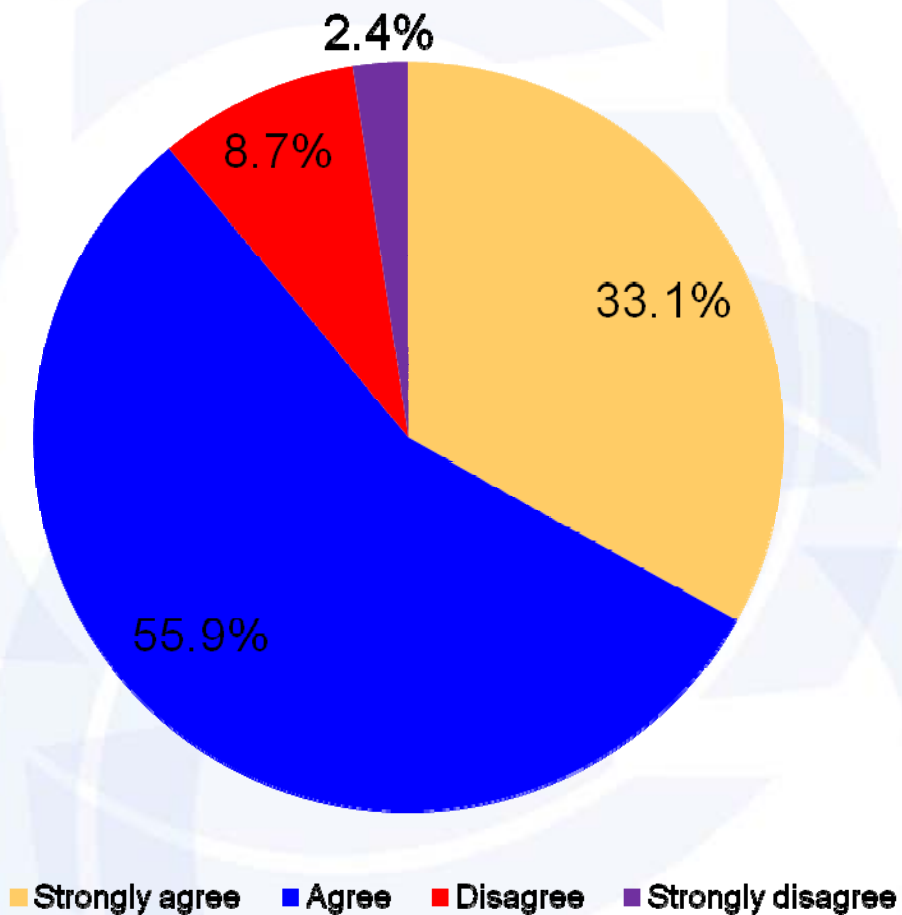**BHEMR increased the time required to administer client/patient-care.**

5.4%

22.1%

26.2%

46.3%

Strongly agree   Agree   Disagree   Strongly disagree

NIATx BHEMR Survey: +Perception[19]

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BHEMR requires providers to negatively change their normal client/patient-care tasks and routines.

2.0%

11.4%

36.9%

49.7%

■ Strongly agree   ■ Agree   ■ Disagree   ■ Strongly disagree
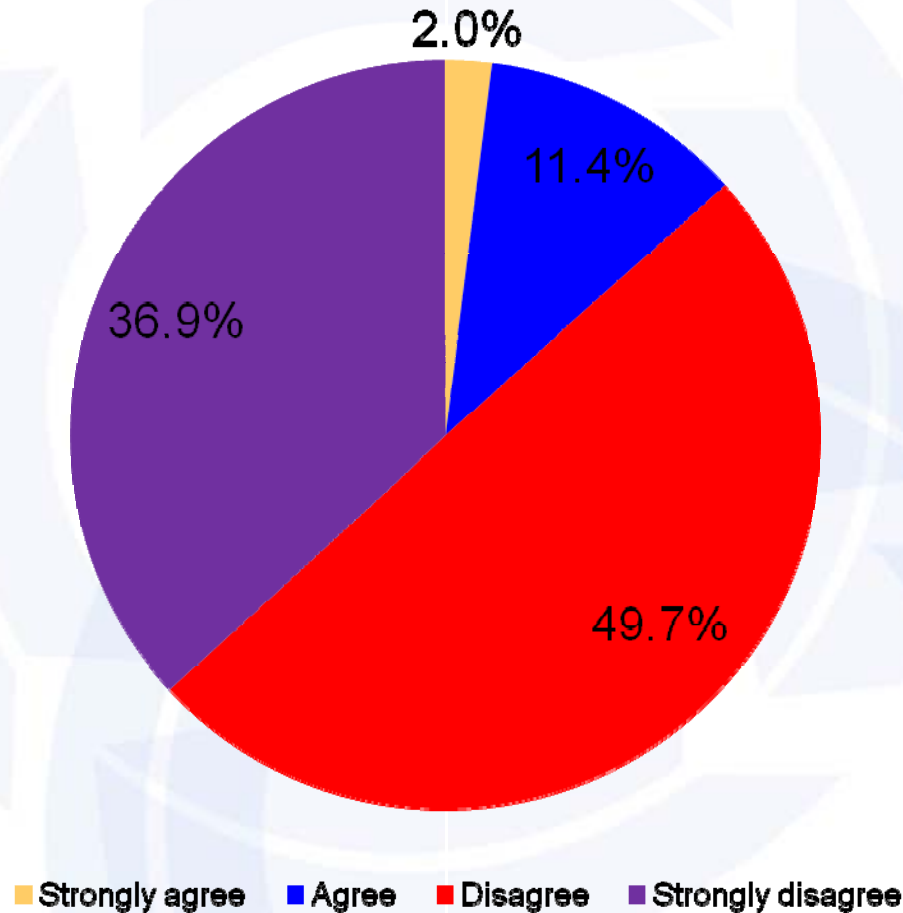
NIATx BHEMR Survey: +Perception[19]

Use of BHEMR makes administering

client/patient-care easier.

2.4%

8.7%

33.1%

55.9%

Strongly agree   Agree   Disagree   Strongly disagree

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NIATx BHEMR Survey: +Perception[19]

Use of BHEMR to administer client/patient-care improves treatment outcomes.
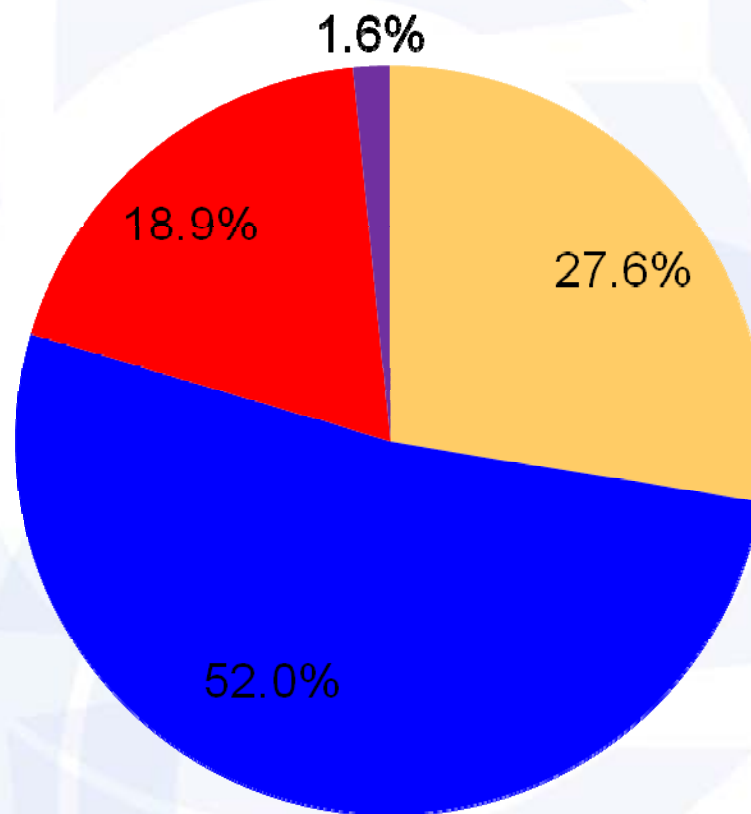
1.6%

18.9%

27.6%

52.0%

■ Strongly agree ■ Agree ■ Disagree ■ Strongly disagree

Barriers to Adoption

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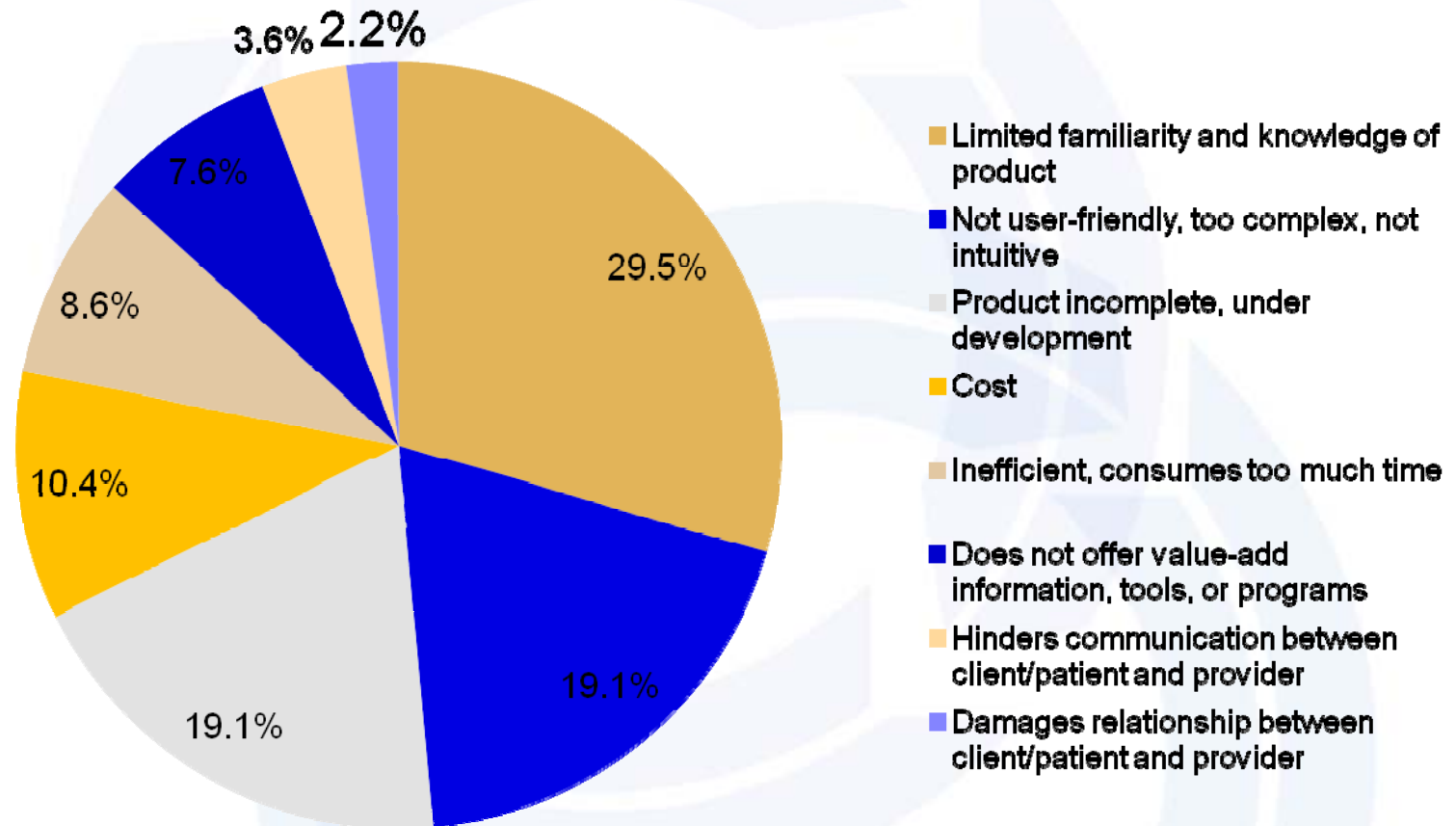
- Costs of entry[1, 19]
- Lack of certification[1]
- Incomplete standardization
- Privacy concerns[1]
- Disconnect – payer vs. beneficiary[1]
- Limited knowledge & experience[19]

NIATx BHEMR Survey: Adoption Barriers[19]

Why do providers not use BHEMR to administer client/patient-care?

- Limited familiarity and knowledge of product
- Not user-friendly, too complex, not intuitive
- Product incomplete, under development
- Cost
- Inefficient, consumes too much time
- Does not offer value-add information, tools, or programs
- Hinders communication between client/patient and provider
- Damages relationship between client/patient and provider

3.6% 2.2%
7.6%
8.6%
10.4%
19.1%
19.1%
29.5%

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Health Information Technology (HIT)

"Hardware, software, integrated technologies or related licenses, intellectual property, upgrades, or packaged solutions sold as services that are designed for or support the use by health care entities or patient for the electronic creation, maintenance, access, or exchange of health information." [7]

Alternative References…

- EMR, EHR, CPOE, PHR, PM, Enterprise Systems

The HIT Abyss…

- Electronic medical records (EMR)
- Electronic health records (EHR)
- Computerized physician order entry (CPOE, ePrescribing)
- Clinical decision support systems
- Electronic results reporting
- Mobile computing
- Telemedicine
- Data exchange networks
- Knowledge retrieval systems
- Financial, administrative, practice management (PM), enterprise
- Consumer health informatics, personal health records (PHR)
- Lab information systems (LIS)
- Automated case management

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EMR vs. EHR vs. PM

Electronic Medical Records (EMR)…

- An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within **one** health care organization.[24]

Electronic Health Records (EHR)

- An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across **more than one** health care organization.[24]

Practice Management (PM)

- An electronic system that manages day-to-day operations of a medical practice – store patient demographics, schedule appointments, maintain lists of insurance payers, perform billing tasks, generate reports, etc.

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Qualified Electronic Medical Records (EMR)[7]

"An electronic record of health-related information on an individual that:

- *Includes patient demographic and clinical health information, such as medical history and problem lists; and*

- *Has the capacity…*

  I.   *To provide clinical decision support;*

  II. *To support physician order entry*

  III. *To capture and query information relevant to health care quality; and*

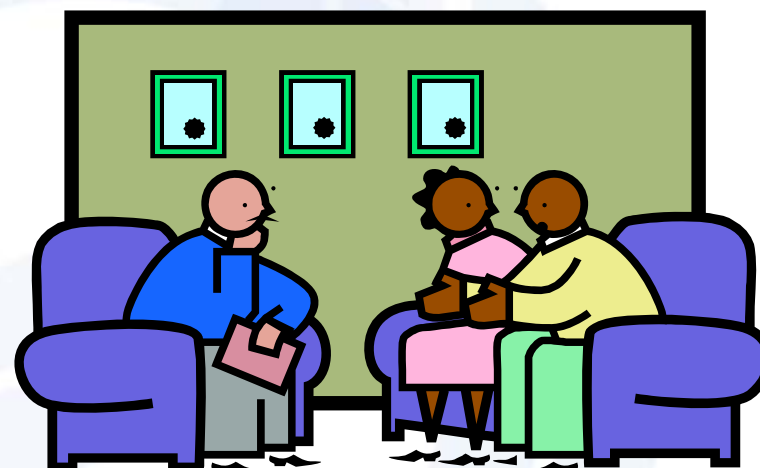 IV. *To exchange electronic health information with, and integrate such information from other sources."*

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The Integrated EMR

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Clinical

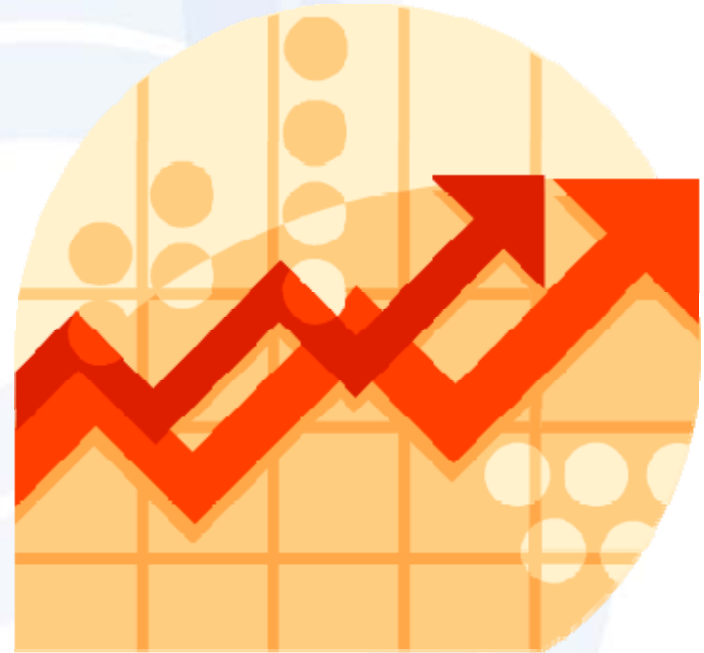*Business*

The Business Case

- Financial Benefits
- Financial Costs
- Return on Investment (ROI)
- Risk Assessment
- Sources of Funding

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Financial Benefits

Error reduction…

- Lack of communication, missing information, or illegible handwriting[22]

Multidisciplinary care coordination…

- Enhances the ability to share information with and external to the agency
- Provides information to make sound clinical decisions

Information generation, retrieval, management, & transmission…

- 38% physician's time, 50% of nurse's time spent writing in charts[15]
- 35% to 39% total hospital costs patient & professional communication[15]
- 17% to 30% health care dollar spent "back office" coding & claims-submission[15]

Financial Costs

Capital Investments…

- Software (programs, integration)
- Hardware (computers, servers, integration)
- Facility (furniture, electrical, space)

Labor Expenses (Taxation vs. Capitalization?)…

- Planning
- Selecting
- Installing
- Training
- Maintaining & Upgrading
- Loss of Productivity

EMR Implementation Research…

- $44,000 initial implementation expenditure per physician FTE[20]
- $8,500 annual average costs per physician[20]

Return on Investment (ROI)

Return on Investment Tools…

- Net Present Value (NPV)
- Internal Rate of Return (IRR)
- Payback Period
- Accounting Rate of Return (ARR)

EMR Implementation Research…

- 2.5 year payback period[20]
- $86,400 estimated net benefit per PCP over 5-years – savings: reduced drug expenditures, improved captured charges, and decreased billing errors.[21]

Public Assistance: Funding

American Recovery & Reinvestment Act (ARRA)

- Enacted:
  - February 17, 2009

- HIT Provision:
  - HIT Economic & Clinical Health (HITECH) Act – Title XIII A, Title IV B[12]
  - Promote adoption and "meaningful use" of certified interoperable HIT[12]
  - Primary Objective: Improve quality and value of U.S. health care[12]

- Deadlines:
  - 2011, Establish "meaningful use"
  - 2014, EHR utilization for each U.S. person

- Scope & Terms:
  - Purchase, implementation, training, improvement

- Grants (www.grants.gov):
  - Discretionary Funding = $2 billion (BH eligible)
  - Medicare & Medicaid Incentive Funding = $17 billion (BH ineligible)

Business Case Keys

- Address the CEO's financial burdens (Cost, ROI)
- Benchmark current performance objectively
- Gain support from affected-disciplines
- "Be" the credible, informed expert
- Draw ideas/lessons/successes from outside organization or field
- Know the answers to unknown questions
- Exude ENTHUSIASM!!!

EXPERT

Opportunities for Improvement (OFI's)

Where do we struggle…

- generating, storing, managing, and sharing information?
- coordinating client/patient-care?
- accounting, billing, scheduling?
- monitoring complying regulatory guidelines?
- measuring and improving performance?

Technology-Change: Ready?

Improving BHEMR Use Requires…

- Changes to workflows (standardization)
- Training, acquiring, retaining staff
- Increased financial incentives to report & improve performance

Internal Assessment of Change Readiness…

- Internal Environment
- Motivation
- User Needs
- Promotion
- Implementation
- Department-Fit
- Awareness & Support

Organizational Change Keys & Predictors

- Support from top management
- External pressure to improve performance
- Professionalism of the information technology unit
- Access to external information sources

Strategic Implementation Process

- Planning
- Selecting
- Installing
- Piloting
- Commissioning
- Training
- Maintaining
- Upgrading

Project Planning

- Project mission, objectives, scope (S.M.A.R.T.)
- Project customers (staff, administrators, payers, regulatory)
- Project team, roles, & responsibilities (functional, multidisciplinary)
- Project budget (progress-correlated)
- Project schedule (milestone dates)
- Project information management system
- Communication system
- Project management resources
- Vendor proposals (multiple)
- Vendor & trades contracting
- Piloting program
- Training

Product & Vendor Selection Metrics

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- Clinical Functionality
- User Interface
- Clinical Decision Support Tools
- Practice Management
- Improvement
- Interoperability
- Information Technology (IT)
- Compliance (HIPAA, ARRA)
- Certifications & Standards
- Customer Services

- Technical Support
- Corporate
- Costs

Product Certification: CCHIT

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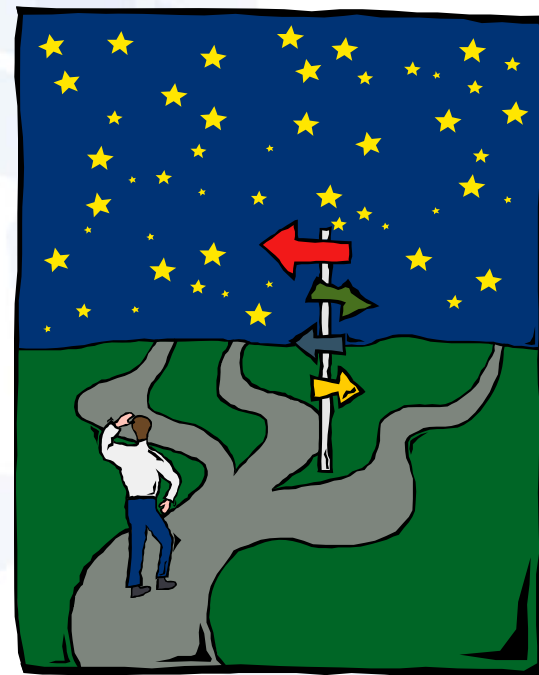
Committee for Certification of Health Information Technology

- www.cchit.org
- Private, Non-profit
- U.S. Government awarded standardization and certification grant (2005)
- Preliminary ARRA 2011 (modular) vs. Certified 2011 (comprehensive)[8]
- BH CCHIT Certified 2011 Program: June 2010
- **Certification Categories…**
    - Demographic & Clinical Information
    - Clinical Decision Support
    - Physician Order Entry & Electronic Prescribing
    - Health Quality Information
    - Electronic Health Information Exchange
    - Security & Confidentiality
    - Supporting Workflow

Product Certification: IOM "12 Gold Standards"[15]

Hardware & Operating-System Design…

- Interoperability (HL7): longitudinal & time links patient records or data systems
- Accessibility: continuous authorized-user access, local or remote data access
- User Interface: simultaneous user interfaces

Software design…

- Security & Privacy: guarantee confidentiality & audit trails
- Functionality: provide problem list, support direct physician entry
- Records: keep history of clinical reasoning & rationale
- Clinical decision support: facilitate clinical problem solving
- Practice management: help measure & manage costs to improve quality of care

Content…

- Functionality: measure health status & functional levels
- Capacity: provide flexibility to support current & future specialty needs

Implementation Barriers

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- Cost of implementation

- Conflict in leader and workforce goals

- Lack of incentives

- Limited participation/partial compliance

- Staff Resistance:[14, 25]

  - Self-interest: "Forget what <u>we</u> gain, what do <u>I</u> lose?

  - Misunderstanding: "The costs outweigh the gains"

  - Distrust: "I do not trust you – no matter what"

  - Disinterest: "I don't care"

  - Perception: "the decision to adopt is flawed"

  - Bad Design: "this doesn't even work"

  - Drop in Productivity: "it doesn't work right now?! …this was a bad idea"

  - Role clarification: "that's not my job!"

Implementation Keys: "General"

- IT: employ robust technical assistance[12]
- Training: provide excessive support, training, and education to staff
- Selection: socio-technical design, stakeholder needs
- Workflow: organizational processes & workflow changes
- Human Factors: staff acceptability, training, usability
- Project Management: goal-centered, schedule-oriented
- Strategy Execution Management: Balanced Scorecard[23]

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Implementation Keys: Change Leadership[14,25]

- Establish: culture of change (CoC), cooperation, emotional bond
- Negotiate: powerful opponents (incentives), remove "lost-hopes"
- Manage: rate of change (resistance), professional ideas
- Build: consensus (where able)
- Persuade: data, user benefits
- Communicate: articulate vision, urgency
- Measure: need, fear, resistance
- Leverage: change leaders
- Empathize: understand, connect
- Customize: no "one-size-fits-all"
- Involve/Empower: staff, end-users
- Educate: inform, train

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Summary

- Eliminate "real" barriers to adoption
- Apply "strategic" change leadership
- Develop the bulletproof business case
- Understand the change case
- Plan, plan, plan…but remember to execute!!!
- "Have faith…and don't lose it!"

The Next Steps

Develop the business case…

- Benchmark current operating costs…
- Benchmark current value-add workflows…
- Identify CEO/Director's primary

Develop the change case…

- Organizational "readiness" evaluation
- Workflow process mapping
- NIATx support

Schedule…

- Provider "homework"
- Future conference calls
- Future site visits

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