

**Rural Wisconsin Health Cooperative  
Information Technology Network**

Presented by Louis Wenzlow  
RWHC ITN Chief Information Officer  
NORH 9/23/08



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**Presentation Overview**

- What is an EHR/HIS; Why Implement?
- Community Hospital HIT Challenges
- RWHC ITN Project Overview
- Collaborative Vendor Selection Process
- ITN Legal and Staffing Structure
- Technical and Telecommunications
- Financial Benefits of Collaboration
- Recent ITN Activities and Next Steps



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**What is an EHR and HIS?**



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## EHR and HIS Definitions

Electronic Health Records: provide secure, real-time, patient-centric information to aid clinical decision-making by providing access to a patient's health information at the point of care.

Hospital Information System: a comprehensive integrated information system designed to manage the administrative, financial, and clinical (EHR) aspects of a hospital.



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## HIS Modules & Functions

### Facility Management

1. Data Repository
2. Master Patient Index
3. Database reporting
4. Registration/ADT
5. Billing
6. General Ledger
7. Accounts Payable
8. Fixed Assets
9. Materials Management
10. Payroll/HR
11. Time & Attendance
12. Executive Support
13. Budgeting
14. Enterprise Scheduling
15. Order Entry
16. Integration tools

### Medical Records

1. HIM Core Module
2. Chart & Film Tracking
3. Chart deficiency tracking
4. Release of Info. Tracking
5. Coding & abstracting
6. Bulk scanning option
7. Dictation
8. Electronic signature

### Departmental Systems

1. Pharmacy
2. Lab
3. Radiology
4. Other ancillaries
5. ER
6. OR
7. ICU

### Inpatient Clinicals

1. Inpatient charting
2. Multidisciplinary
3. e-MAR
4. Barcoding
5. Patient Education
6. Physician portal
7. PDA support
8. CPOE
9. Decision support
10. Patient portal

### Other Modules

1. Long term care
2. Home health
3. QI
4. Physician EMR
5. Physician PM



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## Why Implement?



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### President Bush's 2004 State of the Union

- "By computerizing health records, we can avoid dangerous medical mistakes, reduce costs, and improve care."  
--President George W. Bush, State of the Union Address, January 20, 2004
- Stated goal: to achieve electronic health records for most Americans in the next 10 years



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### Governor Doyle's Executive Order # 129

- **WHEREAS**, on April 12, 2004, President Bush called for widespread adoption of interoperable electronic health records ("EHRs") within 10 years...
- **NOW, THEREFORE, I, JIM DOYLE...** annually assess options and progress on the action plan to achieve automation of all health care systems by 2010



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## Patient Safety

- Better clinician access to medical records can improve care
- Up to 98,000 annual deaths attributed to medical errors by the IOM. Clinical systems can be an essential component of efforts to identify and prevent medical errors
  - Drug interaction checks
  - Bedside medication verification
  - Medication reconciliation between episodes of care




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## Pay for Performance

- P4P movement aims at tying reimbursements to quality rather than quantity of service
- Has started with voluntary quality reporting
- Will move to reimbursement adjustments based on (1<sup>st</sup>) participation in quality reporting, and (2<sup>nd</sup>) quality results.
- Electronic health records seen as critical for both improving quality and the facilitation of quality reporting.




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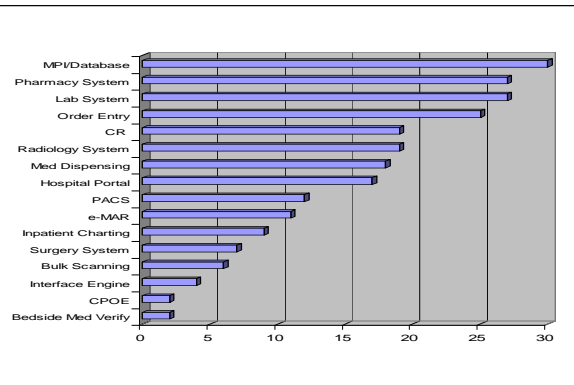
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## HIT Adoption Increasing




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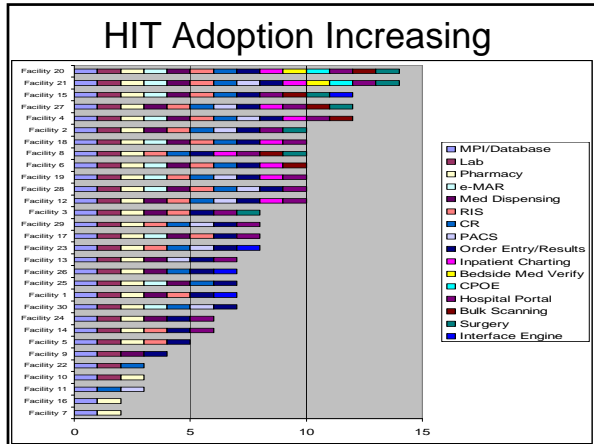
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## Implementation Challenges for Community Hospitals



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## HIT Challenges for Rurals

(National Advisory Commission on Rural Health Report)

Unique financial challenges

- Lower volumes make business case more elusive
- Lack of investment capital
- Less leverage with vendors



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## HIT Challenges for Rurals

(National Advisory Commission on Rural Health Report)

- Unique internal challenges
  - Limited IT support, if any
  - Even with IT support, no integration expertise
  - Fewer clinician change agents/"champions"
  - Fewer project management and educational resources



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## RWHC ITN Project Overview



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## Shared EHR Project in a Nutshell

...to implement a collaborative electronic health record (EHR) environment (initially consisting of a hospital information system and a physician practice EMR system) that will be shared by multiple hospitals from a common datacenter and supported by a pooled staff.



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## HIS Modules & Functions

<b>Facility Management</b>	<b>Medical Records</b>	<b>Inpatient Clinicals</b>
1. Data Repository	1. HIM Core Module	1. Inpatient charting
2. Master Patient Index	2. Chart & Film Tracking	2. Multidisciplinary
3. Database reporting	3. Chart deficiency tracking	3. e-MAR
4. Registration/ADT	4. Release of Info. Tracking	4. Barcoding
5. Billing	5. Coding & abstracting	5. Patient Education
6. General Ledger	6. Bulk scanning option	6. Physician portal
7. Accounts Payable	7. Dictation	7. PDA support
8. Fixed Assets	8. Electronic signature	8. CPOE
9. Materials Management	<b>Departmental Systems</b>	9. Decision support
10. Payroll/HR	1. Pharmacy	10. Patient portal
11. Time & Attendance	2. Lab	<b>Other Modules</b>
12. Executive Support	3. Radiology	1. Long term care
13. Budgeting	4. Other ancillaries	2. Home health
14. Enterprise Scheduling	5. ER	3. QI
15. Order Entry	6. OR	4. Physician EMR
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## Chronology of Events

- 2003 Wide Area Network Establishment
- 2005 AHRQ THQIT Planning Grant
- 2006 Visits to Shared HIT Collaboratives (INHS/SISU)
- 2006 Vendor Selection (goal setting, vendor evaluations, RFIs, RFPs, onsite visits)
- 2007 Legal Work (consortium—RWHC ITN— articles of incorporation, bylaws, tax exempt status, etc.)
- 2007 Business Planning (to clearly demonstrate the collaborative business case to participants)
- 2007 Contract Negotiations
- 2007 Facility Commitments




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## Four Founding Hospitals

- Boscobel Area Health Care
- Memorial Hospital of Lafayette County
- St Joseph's Community Health Services
- Tomah Memorial Hospital




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## Guiding Principles

- Contain HIS/EHR Costs (Financial)
  - HIS negotiated discounts
  - Server/Datacenter sharing
  - Grants
  - Participants positioned for future collaborative benefits
    - Shared Dictation, PACS, Ancillary systems
    - Shared Radiologist, after-hours Pharmacist...
    - Shared IT, Transcription, Claims, Collections...



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## Guiding Principles

- Improve HIS/EHR Effectiveness (Quality)
  - Shared HIS support staffing
  - Redundancy
    - Datacenter/Server
    - Connectivity
  - Data exchange
    - Between participants
    - With referral centers (as standards mature)
  - Participants positioned to collaboratively work on P4P, quality reporting, interoperability...



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## Collaborative Vendor Selection



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## ITN Vendor Selection

- RFI and RPQ
  - Requests for Information
    - Request for information relating to vendors ability to meet basic group needs, including application availability, shared datacenter, data exchange, etc.
  - Requests for Price Quotation
    - Early work to identify vendor price models and create rough apples to apples comparisons



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## ITN Vendor Selection

- Vendor Evaluations
  - Input requested from end-users over a 2 month period
  - Topics divided into 3 categories
    - Clinical and Ancillary
    - Financial
    - Physician Practice
  - 20+ evaluation questions per category



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## ITN Vendor Selection

- Evaluations provided broad brushstroke of the complete system
- Follow-up Q&A sessions were used for deeper analysis of specific areas
- Subsequent “test drive” sessions were organized to answer remaining questions
- Onsite visits (both local and out of state)



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		CPSI	Dairyland	Epic	HMS	Meditech
1	<b>Clinical/Ancillary Module Vendor Ranking (40%)</b>					
		+	+	+	+	+
2	<b>Financial Module Vendor Ranking (40%)</b>					
		+	+	+	+	+
3	<b>Physician Practice System Vendor Ranking (20%)</b>					
		=	=	=	=	=
5	<b>Formal Evaluation Total Score (add rows 1-3 to arrive at total score)</b>					
						

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		CPSI	Dairyland	Epic	HMS	Meditech
1	<b>Formal Evaluation Total Score (from row 5 on previous sheet)</b>					
		+	+	+	+	+
2	<b>Facility Determined Q&amp;A and Presentation Session Score</b>					
		+	+	+	+	+
3	<b>Facility Determined "Other Factors" Score (such as system cost)</b>					
		=	=	=	=	=
4	<b>Total Vendor Score (add rows 1-3 to arrive at total score)</b>					
5	<b>Final Vendor Ranking (The highest scoring vendor = 5; next highest = 4; etc.)</b>					
						

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## ITN Vendor Selection

- Requests for Proposal to finalist vendors
  - Vendor's business information, functional capability, technical information, service and support, standards position (CCHIT, etc.), implementation and training capabilities, performance specifications, interface capabilities, contract provisions, detailed pricing and cost information, etc.
- Contract Negotiations

This process, along with aggregation of facility volumes, created enhanced participant leverage with vendors and allowed us to negotiate lower costs.



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## Vendors Selected

- Healthcare Management Systems (HMS)
  - Community Hospital Information System Vendor
  - One of Initial Four CCHIT Certified Inpatient Vendors
- Medinotes
  - Small Physician Practice EMR Vendor
  - CCHIT Certified at 2007 Standards



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## Legal and Staffing Structure



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## Legal Structure

- 501(e)
  - Qualify for tax exempt loans, tax exempt profits and not-for-profit grants
- Governed by Members
  - Participant Board
  - End-user Advisory Committees
  - Shared Management and Staffing



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## Organizational Roles

- ITN Board: Oversight; Budget
- Project Workgroup: Global Planning
  - Policy development
  - Standards development
  - New Release coordination
  - New products/services recommendations
- Financial, Ancillary, Clinical, Workgroups
  - Product evaluation
  - Area specific policy/standards work
  - Enhancement suggestions
  - Shared staff to provide cohesion




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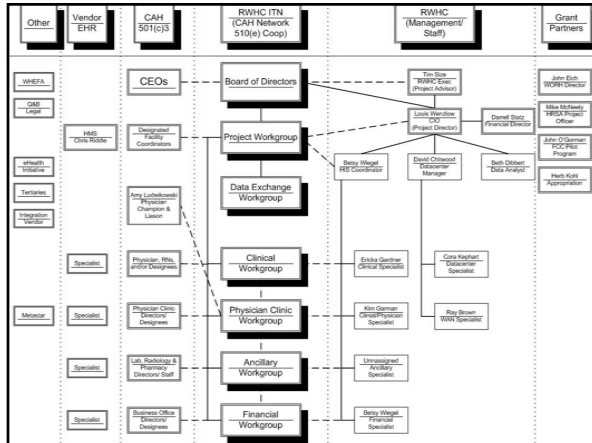
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## Technical/Telecommunications




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## Technical Configuration

- Redundant Server Model
  - 2 servers; 2 locations; continuous replication
  - High availability (planned downtime limited to annual New Release installations)
  - Disaster recovery in minutes rather than many hours or days



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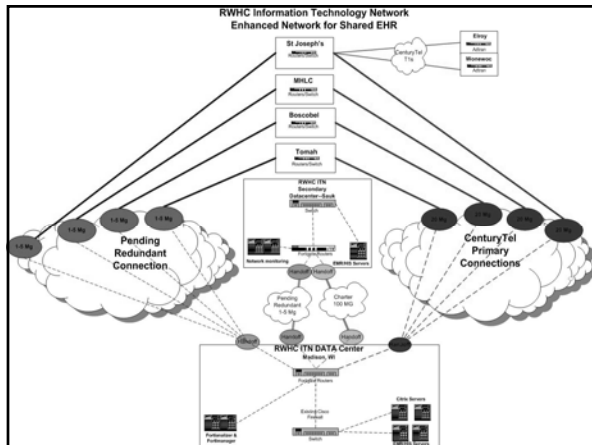
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## Collaborative Financial Benefits



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## Financial Benefits of ITN Membership

- Group Purchasing
  - 45% discount on software and support costs
  - 20% discount on installation costs
  - Tiered pricing so smallest volume facilities pay less
- Sharing Cost of Infrastructure
  - 50%+ reduction in server costs
  - Additional savings related to shared datacenters

Small hospital EHR business case challenges reduced.



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## Financial Benefits of ITN Membership

- Low Capital Costs
  - ITN participant members pay a monthly fee rather than making large capital investments
  - For founding members, ITN has taken out a 5 year loan to be paid back through service fees

Lack of investment capital not a barrier with this model.



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## Financial Benefits of ITN Membership

### Grant Benefits

- HRSA CAHHIT (\$1.6 million toward software, hardware, implementation, and staffing)
- FCC (\$1.5 million for telecommunication costs available over 5 years)
- Kohl Appropriation (\$180,000 toward shared staffing model)
- DLT EMR Loan/Grant Opportunity

Future grant opportunities look promising for networks of hospitals implementing EHRs.



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## ITN Activities and Next Steps



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## Activities and Next Steps

- April-June: file building, preinstall, and training activities at St. Joseph's and Lafayette for Phase 1 implementations
- June: Telecommunications environment goes live
- June 7: Tomah migration to shared environment
- July 1: Phase 1 applications go live at St Joseph's and Lafayette
- July 26: Boscobel migration to shared environment
- Sept 6: 2<sup>nd</sup> datacenter for emergency preparedness goes live
- August-September: file building, preinstall, and training activities for Phase 2 implementations
- November: Phase 2 applications go live



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## Activities and Next Steps

- Policy and procedure development
- Ongoing support and education
- Participation in Wisconsin eHealth Initiative, including various data exchange activities
- Quality improvement program to measure ITN benefits (funded by HRSA)
- Continuous assessment of additional HIT collaborative opportunities



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## Questions

- For more information please contact Louis Wenzlow
  - [lwenzlow@rwhc.com](mailto:lwenzlow@rwhc.com)
  - (608) 644-3237



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