



## Unit 9 - Potential Issues with Adoption and Installation of an HIT system

### Component 7

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## Objectives

- Identify frequently encountered challenges to adoption and implementation of HIT systems
- Propose solutions to common problems in the implementation of HIT systems.
- Design a plan to address barriers to implementation of an HIT system.



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## Why Do Systems Fail?

- Systems can “get in the way”. Is it useable?
- Lack of the story metaphor
  - Narratives are essential to a patient's episode of illness
  - Poor communication is more often detrimental to patients than lack of knowledge
  - Computers should enable clinicians to capture narratives easily
  - The structure of the patient's record strongly influences the ease of information retrieval

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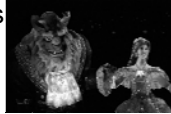
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## Understanding Critical Success Factors

- User Characteristics
  - Cognitive style, personality, demographics, situational variables, attitudes, expectations
- System Design Characteristics
  - Hard/software performance, learning, decision-support, usability, GUI
- Organizational Characteristics
  - organization culture, top level support, commitment



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## Common Challenges to Adoption & Integration of HIT

- Hard to enter data
  - Free text – isn't
  - Structured text
    - Tough on the front end
    - Easier on the back end
- Reading
  - 40% slower on line



"If the computer is used to generate output, the layout and structure of the reports are important as this can influence clinical decisions in sometimes fundamental ways."

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## Effect of Presentation Order – "Primacy Effect"

- A: **Diabetic Medication X**  
This medication is effective; it lowers sugar levels. It makes one feel better and boosts energy. It may cause nausea and headache.
- B: **Diabetic Medication Y**  
This medication may cause headache and nausea. It boosts energy and makes one feel better. It is effective; it lowers sugar levels.



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## Common Challenges to Adoption & Integration of HIT

- Funding – Who pays? Who benefits?
- Workflow and culture (resistance to change) are two key barriers to adoption
- Degree of turnover in healthcare.



**Culture Eats Strategy for Lunch**

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## The Three T's

### THE THREE T'S OF A SUCCESSFUL EHR IMPLEMENTATION

Team	Tactics	Technology
<ul style="list-style-type: none"> <li>• Identify one or more EHR champions or don't implement.</li> <li>• Make sure your organization's senior executive fully supports the EHR.</li> <li>• Use an experienced, skilled project manager.</li> <li>• Utilize sound change management principles.</li> <li>• Have clear, measurable goals.</li> <li>• Make sure users share your goals.</li> <li>• Establish realistic expectations.</li> <li>• Don't try to implement an EHR in a dysfunctional organization.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan, plan, plan.</li> <li>• Redesign your workflow.</li> <li>• Don't automate processes just because you can; make sure the automation improves something.</li> <li>• Design a balanced scanning strategy.</li> <li>• Consistently enter key data into your new EHR charts.</li> <li>• Get data into the EHR electronically when possible.</li> <li>• Utilize a phased implementation.</li> <li>• Train, train, train.</li> <li>• Be flexible in your documentation strategy and allow individual differences in style.</li> <li>• Don't "go live" on a Monday.</li> <li>• Lighten your workload when you "go live" and for a short period afterward.</li> <li>• Don't underestimate how much time and work is involved in becoming "expert" with an EHR.</li> <li>• Pick a vendor with an excellent reputation for support.</li> <li>• Utilize "power users" at each site.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't scrimp on your IT infrastructure.</li> <li>• If you're a small practice, consider an application service provider (ASP) model.</li> <li>• Make sure that your IT personnel do adequate testing.</li> <li>• Utilize expert IT advice when it comes to servers and networks.</li> <li>• Make sure your servers and interfaces are maintained on a daily basis.</li> <li>• Back up your database at least daily.</li> <li>• Have a disaster recovery plan and test it.</li> </ul>

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### See Handout

Table 3 Perceived barriers and related possible interventions

Perceived barrier	Possible barrier-related intervention strategies
A Finance	Provide documentation on return on investment. Show profitable examples from other EMR implementations. Provide financial compensation.
B Technical	Educate physicians and support ongoing training. Adapt the system to existing practices. Implement EMR on a module-by-module basis. Link EMR with existing systems. Promote and communicate reliability and availability of the system. Assign third party for support during implementation.
C Time	Provide support during implementation phase to convert records and assist. Provide training sessions to familiarize users. Implement a user friendly help function and help desk. Redesign workflow to achieve a time gain.
D Psychological	Discuss usefulness of the EMR. Include trial period. Demonstrate ease of use. Start with voluntary use. Let fellow physicians demonstrate the system. Adapt system to current medical practice.
E Social	Discuss advantages and disadvantages for doctors and patients. Information and support from physicians who are already users. Ensure support, leadership, and communication from management.
F Legal	Develop requirements on safety and security in cooperation with physicians and patients. Ensure EMR system meets these requirements before implementation. Communicate on safety and security of issues.
G Organization	Redesign workflow to realize a better organizational fit. Adapt EMR to organization type. Adapt EMR to type of medical practice.
H Change process	Select a project champion, preferably an experienced physician. Let physicians (or representatives) participate during the implementation process. Communicate the advantages for physicians. Use incentives. Ensure support, leadership, and communication from management.

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## ToolKits



- AHRQ Emerging Lessons Toolkit:
  - [http://healthit.ahrq.gov/portal/server.pt/community/ahrq-funded\\_projects/654/emerging\\_lessons/11227](http://healthit.ahrq.gov/portal/server.pt/community/ahrq-funded_projects/654/emerging_lessons/11227)
- AAFP: HIT in the Small Office Online Tutorials
  - <http://www.centerforhit.org/online/chit/home/cme-learn/tutorials.html>
- HIMSS Flyer – Getting Started With An EHR
  - [http://www.himss.org/content/files/GettingStartedEMR\\_Flyer1.pdf](http://www.himss.org/content/files/GettingStartedEMR_Flyer1.pdf)
- ACP: EHR Adoption Road Map and Tools
  - [http://www.acponline.org/running\\_practice/technology/ehr/roadmap/](http://www.acponline.org/running_practice/technology/ehr/roadmap/)
- HRSA Implementation Tool Kit
  - <http://www.hrsa.gov/publichealth/business/healthit/toolbox/HealthITAdoptiontoolbox/>

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This Completes the Slide Deck for Unit 9

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