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Beyond Go-Live: Achieving HIT System Optimization

FEBRUARY 23, 2012

Definition

- Optimization is defined as:
  - An act, process, or methodology of making something (as a design, system, or decision) as fully perfect, functional, or effective as possible… *(Merriam-Webster)*
  - The procedure or procedures used to make a system or design as effective or functional as possible… *(TheFreeDictionary.com)*
- For an EHR system, this can be defined as:
  - Enhancing or "fine-tuning" the functionality of a system to suit the needs of a particular end-user or medical specialty
  - Maximizing the effectiveness of a system so that end-users can get the most out of a system while spending as little time as possible in the system

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Some Thoughts on Optimization

- EHR adoption is just the beginning; to ensure that you are getting the most out of your system, ongoing optimization is necessary
- During implementation, focus on getting your initial sites live and resolving issues identified during the go-live period
- End-users don't always know what they want/need until they have worked in a system for a while

"In effect, we climbed out of the horse and buggy into a Model T," - David Levin, MD, CMIO Sentara and vice president of medical informatics

Industry Guiding Principals

- Offer post-Live training opportunities
  - "How can I get through my day *faster?*"
- Solicit feedback from all levels
- Enhance build and provide additional features when appropriate
- Establish a dashboard to measure productivity
- Incorporate optimization into your maintenance program
  - Monitor and install vendor software upgrades

"You cannot possibly adapt technology to everyone's workflow. You must provide a solid baseline with a plan to optimize." – James Walker, MD Chief Health Information Officer, Geisinger Health System

Source: McDonnell C., Werner K. Wendel L.,"Electronic Health Record Usability: Vendor Practices and Perspectives" AHRQ Publication No. 09(10)-0091-3-EF, May 2011

Two Approaches to Deploying Clinical Systems

1. "*Get it nearly perfect before go-live*"
   - Involves heavy customization upfront to cater to individual workflows
   - Initially, end-users may be satisfied because their EHR mimics their current workflows
   - Introduces risk of automating inefficient paper processes
   - Requires optimization to occur at the physician or practice level, typically requiring additional time and resources
2. "*Deploy standard functionality upfront; optimize later*"
   - Allows end-users to get comfortable with the basics before introducing advanced functionality
   - Provides ability to optimize across a group
   - Better manages scope creep

We believe the second approach delivers better results , faster and with less risk.

Goals of Optimization

- Improve patient safety
- Enhance workflows to maximize an EHR system's value
- Initiate advanced end-user education programs
- Increase productivity and efficiency
- Increase end-user adoption and satisfaction

Source: Gardner, Elizabeth. "User Unfriendly" Health Data Management, February 2012. Available online at www.healthdatamanagement.com.

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Lessons Learned

Establish Clear Objectives

- Begin thinking about your organization's strategic goals and implementation objectives
- Identify operational processes that need to change with an EHR:
  - New patients
  - Referrals
  - Scheduling
  - Medication ordering/administration
- Design with the end-user in mind
- Technology is important, but it's about the clinical processes and workflows
- One of the biggest issues with clinical information systems is that they require clinicians to adhere to standard workflows and clinical protocols to be effective

Source: William S. Underwood, MPH and Michael S. Barr, M.D., MBA, FACP: "The Correlation of Training Duration with EHR Satisfaction: Implications for Meaningful Use"

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Implementation To Do's

- Tailor during implementation:
  - Non-electronic workflows
  - Preference lists based on top 25 diagnoses
  - Communication templates (e.g., letters)
  - "Must-Have" reports
  - Progress notes to the extent that they cover basic workflows
  - Barcode Medication Administration
  - Order sets
- Validate system content
  - Clinical monitoring mechanisms
  - Orders
- Focus on the 20% of cases that represent 80% of your solution (Pareto Principal applies broadly in this world)

Critical Success Factors – During Implementation

- Perform a thorough current-state analysis
- Set and manage expectations
- Enlist strong physician champions who are involved in the decision-making process
- Conduct meaningful validation sessions
- Drive standardization from the ground up (e.g., standard naming conventions lead to more efficient system maintenance)
- Manage scope
- Involve end-users throughout the process to promote buy-in
- Track optimization issues separately from system issues and make it clear that these will be reviewed after go-live

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Post-Live To Do's

- Optimize after go-live:
  - Introduce advanced documentation
  - Refine existing and build "nice to have" reports
  - Validate new workflows
  - Enhance progress note templates based on end-user feedback
  - Implement advanced clinical monitoring systems
  - Initiate chart prompts based on documentation
  - Deploy patient portal
  - Potentially add bells and whistles (e.g., iPad, iPhone and Android apps)
- Solicit end-user feedback and deliver crowd pleasers early and often

Critical Success Factors – Post-Go-Live

- Allocate resources for both support and optimization
- Differentiate between break-fix issues and optimization requests
- Prioritize optimization items with the end-users
- Communicate!
  - End users need to know that there's a plan to optimize
  - Be clear regarding what will be optimized soon vs. later
  - Meet regularly with end-users to review progress
  - Continuously educate
  - Document feedback, new items, resolutions
- Group optimization items logically ("like with like")
  - Primary care optimization should span primary care
  - "Like" specialties should be grouped together as well

Managing Post-Live Optimization

- Non-clinical systems in healthcare
  - Solid foundation for implementation and support
  - IT owns and maintains the process
- Clinical systems in healthcare
  - Newer initiative with advanced clinical functions
  - Clinical Informatics serves as the custodian of the process
  - What happens if you don't have a Clinical Informatics group?
- Leveraging Health IT to support clinical process improvement
  - Who should drive clinical optimization and support?

Source: Walker, James M.D. and Bieber, Eric: "Implementing an Electronic Health Record System"

Panelists

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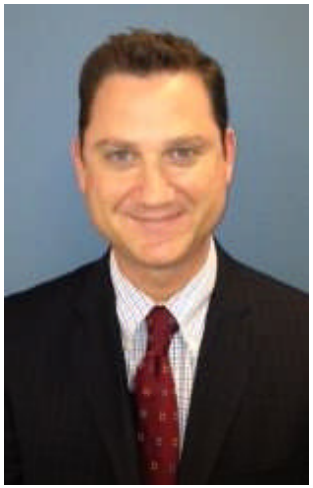

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