Today’s Learning Outcomes

- Describe system development life cycle phases, including the critical links to people, process, and technology.
- Apply key success factors for on-going CIS optimization in support of organizational transformation.
- Define opportunities for the nursing informatician to bring value to CIS implementation and maintenance and "make it stick".

Getting to Know You

- Professional role
- Current work setting
- Informatics background & experience
- Challenges with “Making It Stick”

Why we do this work . . .

. . . And need to do it well!
Spotlighting: System Life Cycle

- SLC: The period of time that starts when a software product is conceived & ends when the product is no longer available for use
- SDLC: Standardized method to develop & implement information technology
- Phased approach – each phase has roles, goals & tools
- Focus on people, process & technology

System Life Cycle Phases

- Plan & Analyze
  - Committed sponsor
  - Key stakeholders
  - Teams & SMEs
  - Change readiness context
  - Resource requirements
  - Outcome measures

- Maintain & Support
- Design & Build
- Evaluate & Measure
- Test & Implement

Multiple SLC Models

Plan & Analyze

- Clarify the problem to be solved
- Strategic fit
- Build consensus

Simultaneous & Synchronized Planning

- Communication
- Change
- Benefits realization
- Training
- Risk

We continuously assess & address the people-centered impacts
**Benefits Realization**

- Identify and quantify business benefits
- Design of benefit delivery
- Benefits analysis and modeling
- Benefit realization project plan
- Benefits realization project
- Benefit realization project planning
- Benefit realization project execution
- Benefit realization project evaluation
- Benefit realization project management

**Plan & Analyze**

- Project scope, charter & plan
- Feasibility study
- Functional requirements
- RFI/RFP
- Best fit option
- ‘As is’ and ‘to be’ workflows & data flows; use case diagrams
- Go-live approach decision

**Design & Build**

- Translate requirements into software
  - Develop
  - Configure
- Human-technology interaction
- Focus on future state
- Include the people impacted!
- Remember the infrastructure
- Leverage & expand multiple plans

**Test & Implement**

- Multi-level testing
  - Remember user acceptance testing
  - Dress rehearsals
- Role-based training
  - Focus on core workflows
  - 70-20-10 Model
- Learner accountability

We transform the concept of what is needed into useful & usable reality

We create expectations & develop methods & tools for on-going learning
Test & Implement

Go-live = THE BEGINNING
• Lifestyle change
• Growth & development
• Super-user role
• Customer pain management

Evaluate & Measure

• Implementation process
• System effectiveness
• Customer happiness
• System-related outcomes/Value realization
• Unintended consequences
• Is it obsolete yet?

Support, Maintain & Optimize

• Keep the lights on & people working
• Plan & practice for unexpected downtimes
• Create a team of interprofessional informatics support roles & services
• Keep asking & listening

Support, Maintain & Optimize

We recognize & manage - great ideas & troublesome problems as they pop up
Support, Maintain & Optimize

Do we have the right solution?
- Execution & adoption
  - Design based on principles
  - Leverage scarce resources
  - Release predictably
  - Communicate exquisitely
  - Engage informatics support community

We hone our clinical-technical communication skills & teach others the same

Support, Maintain & Optimize

CHIME Member Survey: Realizing Value
Optimization = outcomes-based improvement to meet a defined set of objectives

“Over the next 12 months, the top IT priority for my organization is projects that help us get more value out of our EHR investment.”

We link vision to operations & lead toward optimization

Support, Maintain & Optimize

Are we working on the right problem?
- Intake & prioritization
  - Fix, Enhance or Optimize
  - Objective ranking
    - Benefits
    - Feasibility
    - Alignment

We engage clinical, operational & informatics decision-makers in governance

Does Optimized = Safe?
- Safety
- Assurance
- Factors for EHR
- Resilience
- Use health IT to make care safer
- Continuously improve safety of health IT

We join interprofessional colleagues in applying evidence for EHR safety
Factors Impacting HIT Life Cycle

Sittig & Singh Socio-Technical Model
- Hardware & software computing infrastructure
- Clinical content
- Human computer interface
- People
- Workflow & Communication
- Internal organizational policies, procedures & culture
- External rules, regulations & pressures
- System measurement & monitoring

The SDLC Continues
- Healthcare information technologies continue to be developed & implemented...
- Affecting our lives daily
- Nurses can shape healthcare IT impacts through the SDLC & focus on safety & safe use

We study & improve multiple dimensions of safe & effective HIT use

We lead informatics to support health & care for people everywhere!

Thanks!

Questions?

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References


