



How to Use ME/PI to Prompt Innovation and Show Value in HCIT



transforming health through IT™

Cynthia Hartmann

Introduce myself

I have over 30 years in health care information technology. I have worked with several software vendors to manage support, services, and development for laboratory, radiology, document management and EMR systems. I have also consulted with various health care organizations on the implementation and optimization of their EMR systems. I am passionate about process improvement and workflow design. I have a BS in Biological Sciences and an MBA. I also have a Six Sigma Lean Black Belt and CPHIMS. Currently, I am with Wake Forest University Baptist Medical Center as the Director of Access and Revenue Systems in Information Technology Services.

MEPI Community Mission

Support and promote the profession of management engineering and process improvement among the members of HIMSS by providing opportunities for networking, collaboration, publication, promotion and professional development of Management Engineers and Process Improvement professionals in healthcare organizations.

Learning Objectives

- Define management engineering and performance/process improvement
- Describe those principles that assist in furthering innovation in process
- Describe how to show the value in HCIT using MEPI principles

What is Management Engineering and Process Improvement?

Management Engineering

- According to the Society for Health Systems (SHS)
 - Design of systems to support change
 - Utilize Industrial Engineering knowledge and skills to provide internal consulting services
 - Help develop, implement, and monitor more efficient and cost-effective business processes and strategies
- Type of projects:
 - Work flow design
 - Inter-departmental coordination
 - Work methods and procedures

Skill sets needed

- Project management training
- Expertise in
 - Forecasting
 - Optimization of workload and schedules
 - Workflow analysis
- Working knowledge of hospital operations
- Ability to promote ideas and influence change
- Ability to work collaboratively

Performance/Process Improvement

- A process is a series of steps that lead to a desired outcome
- Processes are affected by
 - People
 - Technology/machinery
 - Materials
 - Methods
 - Environment

Skill sets needed

- Background in methodology such as Lean or Six Sigma
- Working knowledge of hospital operations
- Ability to promote ideas and influence change
- Ability to work collaboratively

Examples of ME/PI Projects

- Organizing supply closets
 - Used 5 S – sort, straighten, shine, standardize, sustain
 - Moved to JIT
 - Reduced duplications and hoarding
- Improving number of flash sterilizations that had to be done (reduced)
 - Used Gemba and value stream map
 - Justification for additional equipment
 - Rearranged room for more efficient movement
- Implementation of green bags for patient belongings
 - Travels with them throughout stay
 - Reduced loss

Describe those principles that assist in furthering innovation in process

What is innovation?

According to HIMSS:

- Development and application of ideas, processes and methods occurring in the healthcare continuum
- Occurs everywhere
- Can help measurably improve performance, quality, cost, satisfaction, speed and patient outcomes

Processes to Innovate

Innovation Pathways



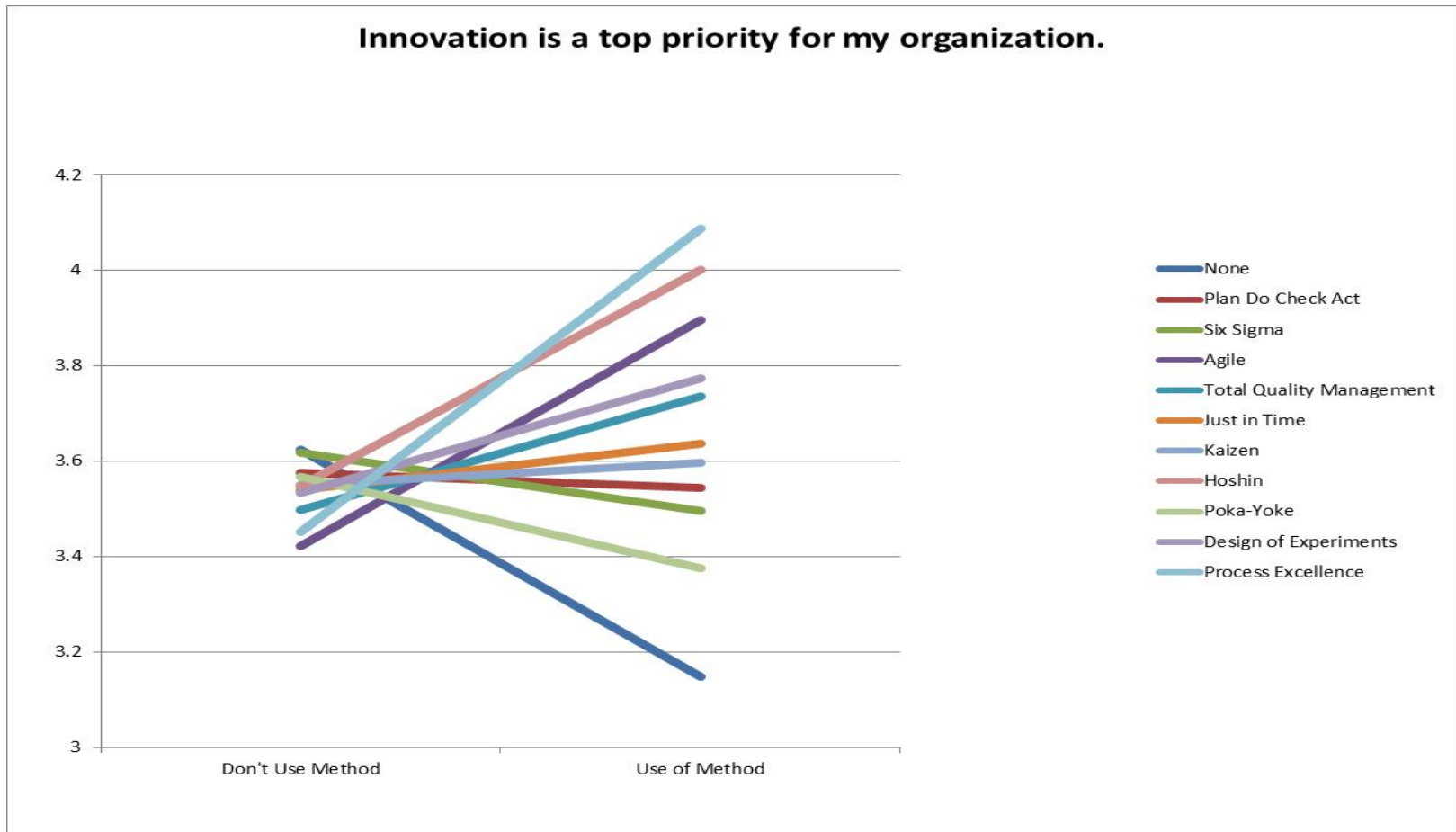
Eight factors to enable innovation

- Blend cultures – include all stakeholders
- Use people in IT – use people and technology together
- Create roadmaps – develop a plan for functions required to innovate and encourage effective communication
- Collaborate and listen – listen for ideas that present opportunities
- Communicate and eliminate barriers – cross communication between areas
- Stress simplicity – don't overcomplicate
- Recognize and reward – celebrate all efforts
- Co-create solutions – obtain feedback from all stakeholders

HIMSS Innovation Community

- Leading research around process methods and how they impact innovation.
- Completed a brief survey to identify if, and how, organizations utilize process management methods to facilitate and stimulate innovation within the organization:
 - Plan-Do-Check-Act (PDCA) – 19%
 - Six Sigma/LEAN and LEAN management – 18%
 - Agile Management – 11%
 - Total Quality Management (TQM) – 10%
 - Just-in-Time (JIT) – 9%
 - Kaizen – 9%
 - Hoshin Planning (capturing strategic goals) – 1%
 - Poka-Yoke (mistake proofing) – 2%
 - Design of Experiments – 4%
 - Process Excellence – 7%
 - None – 5%
 - Other – 3%

Innovation Community findings



Innovation Community findings

- Many of the areas where the findings were 3.0 or below could be enhanced with the implementation of the Technology Adoption Framework as a strategy:
 - The organization's top priorities are well defined – 2.7
 - The organization's innovation priorities are easily executable – 2.5
 - There is a planned and mapped strategy around innovation – 2.7
 - Roadmaps and plans are followed closely and updated as needed – 2.6

Technology Adoption Framework

HIMSS Change Management Task Force – Technology Adoption Framework

Present State

Transition State

Transformed State

Project Management – Change Management – Integrated Activities

Vision,
Leadership &
Awareness

Change
Management
Planning

Stakeholder
Management

Communication

Business &
Operational
Readiness

Training &
Engagement

Deployment

Optimization

- Define Vision
- Define Current state/future state
- Define Success Criteria
- Define Business case for change
- Develop project governance structure
- Define team roles and responsibilities
- Develop sponsorship model
- Sponsorship coaching
- Consider strategic change across multiple initiatives

- Develop change management plan
- Define adoption metrics
- Define new behaviors
- Team Building
- Define project performance measurements

- Stakeholder identification and analysis (include unions and physicians)
- Identify internal change agents and change ambassadors
- Develop stakeholder management plan (including issue tracking and resolution planning)
- Define roles and responsibilities
- Define survey and engagement forums

- Define target audiences and engage key stakeholders
- Define key messages and appropriate channels and delivery voice
- Determine appropriate timing for messaging
- Develop feedback mechanisms
- Explore the use of social media
- Develop FAQ's

- Assess organizational and individual readiness
- Define workflow teams and structures
- Define "as-is" process and workflows
- Conduct organizational risk assessment
- Conduct operational impact analysis
- Conducts job impact analysis
- Create new job roles and responsibilities

- Develop Training Strategy—design, development and delivery
- Conduct in-depth audience analysis
- Curriculum plan and design
- Develop training material (blended learning approach)
- Plan/schedule training events, facilitators, training sites and registration
- Develop job aides, playbooks, and learning evaluations

- Develop business transition plans
- Develop reinforcement and incentive alignment plans

- Execute stabilization post go-live "end user support strategy"
- Support Command Center
- Reinforcement and incentive alignment
- Super User work group meetings
- Skill assessment and skill gap training
- Adoption, performance and optimization assessment
- Revisit vision alignment

Internal Change Competency Development

HIMSS Technology Adoption Framework

- Why use this framework?
 - Provides structure based on successful implementations.
 - Addresses scope, stakeholders, sponsors, project management, training, deployment, etc.
 - Promotes innovation and value through interaction and communication
- How do we implement the technology?
 - Many books are available on detailed implementation steps.
 - Consider this detail for each step along the way to guide what additional resources may be needed beyond your current thoughts.

Adopting the framework

- Present state:
 - Where are we today?
 - Where do we want to go?
 - Vision, leadership, and awareness
 - Change management planning
 - Stakeholder management
- Transition state:
 - How do we get to where we want to go?
 - Stakeholder management
 - Communication
 - Business and operational readiness
 - Training and engagement
- Transformed state:
 - Did we get to where we wanted to be?
 - Why or why not?
 - Training and engagement
 - Deployment
 - Optimization

Choose team

- Positive attitude
- Stakeholder in the process
 - End user
 - Leader
 - IT
 - Marketing

Stakeholder identification and analysis

- Include unions, if applicable:
 - Research the guidelines that must be followed to introduce new technology.
- Identify internal change agents and change ambassadors:
 - Look for employees that are open to change and are leaders within the team. Enthusiastic champions will bring the rest of the employees along with them as they move forward with the change.
- Define roles and responsibilities:
 - Document stakeholder expectations for the implementation.
 - Ensure that change agents have the skills and tools needed to positively promote the project.

Chose environment

- Safe for communication
- Track all ideas
- Use the parking lot
- Keep conversation focused

Success criteria

- What does the future look like at the end of the change?
 - What are the concerns or potential roadblocks?
 - What are the expectations?
 - What are the chances of either happening?
- How will success be measured?
 - What metrics will be used?
 - What will the baseline and target for each metric be?

Develop communication plan

- Assess information needs.
- Develop key messages and appropriate channels.
- Develop voice
 - Based on the message/channel, how do you want the message to be received
 - Tone of communication – assertive, pleading, emphatic
 - Storytelling style, tip sheet style
- Determine the timing of communication.
- Develop feedback mechanisms, including FAQs.

Conduct organizational risk assessment

- Assess readiness:
 - Organizational:
 - Is the organization ready for change?
 - Is the organization prepared to adopt the technology?
 - Individual – same questions on an individual level
- Issue tracking:
 - What system will be used?
 - What data will be captured?
 - What will be done with the data?
 - Do not capture data that will not be used.

Develop business transition plans

- Deploy site readiness checklists:
 - What will each department need to do in order to be ready for the go-live?
 - What will these departments need to do after the go-live event?
- Develop reinforcement and incentive alignment plans:
 - In many projects, there are incentives built into the project costs to reward work that supports the project.
 - Determine incentives at the inception of the project when the project costs are identified.

Describe how to show the value in HCIT using MEPI principles

HIMSS HIS Value STEPS

Value Category (STEPS [®]) and Subtypes		Documented Examples
S	Satisfaction: Patient; Provider; Staff; Other	<ul style="list-style-type: none"> • Improved communication with patients • Improved patient satisfaction score • Improved internal communication
T	Treatment / Clinical: Safety; Quality of Care; Efficiency	<ul style="list-style-type: none"> • Improved patient safety • Reduction in medical errors • Reduced readmissions • Improved scheduling
E	Electronic information / Data: Evidence Based Medicine; Data Sharing and Reporting	<ul style="list-style-type: none"> • Increased use of evidence-based guidelines • Increased population health reporting • Improved quality measures reporting
P	Prevention and Patient Education: Prevention; Patient Education	<ul style="list-style-type: none"> • Improved disease surveillance • Increased immunizations • Longitudinal patient analysis • Improved patient compliance
S	Savings: Financial / Business; Efficiency Savings; Operational Savings	<ul style="list-style-type: none"> • Increased volume • Reduction in days in accounts receivable • Reduced patient wait times

Use of ME/PI principles

- Very similar to principles used with innovation
- Review of current state
- Define vision of value institution wants to provide
- Tie project work directly to STEP for focus and direction
- Set metrics
- Monitor
- Improve

Conclusion

- Process and improvement provide framework for innovation
- Innovation provides value

Thank you for your attention

