



Project Management: Health Information Technology (HIT) Sustainability Beyond Go Live

**Scott Coplan, President
COPLAN AND COMPANY**

Healthcare Crisis*

- The Institute of Medicine (IOM) stated 44 to 98 thousand people die annually in hospitals due to preventable medical errors
- These errors cost between \$17 and \$29 billion annually
- The IOM recommends using new technologies to help reduce medical errors

Source:

*Institute of Medicine, *To Err is Human: Building a Safer Health System*, November 1999

HIT Crisis

- Only 4% of physicians report having extensive, fully functional Electronic Health Records (EHR) systems due in part to adaptability and sustainability issues*, e.g.
 - Resistance from physicians
 - Loss of productivity
 - Uncertainty about ROI
 - Inappropriate patient information disclosure
- HIT spending will reach an estimated \$35 billion by 2011**
- Unless we address adaptability and sustainability, our future HIT investment is at risk

Source:

* New England Journal of Medicine, *Electronic Health Records in Ambulatory Care — A National Survey of Physicians*, July 3, 2008

** Forrester Research, *Technology Marketing In The Challenging 2008 Economy*, April 23, 2008

Compounding the Crisis

- “Not Invented Here” (NIH) bias against outside ideas limits improving HIT success
- Limited stakeholder involvement reduces project management effectiveness
- Un-measurable objectives makes the project purpose unclear
- Neglected workflow redesign erodes user satisfaction

“Not Invented Here”

- Organizational culture that refuses to consider something that originates elsewhere
- Barrier to adoption of “outside” ideas for successful project and post project management
- Significant roadblock to ongoing improvement

Solving the Crisis

- Appreciate the complexities of HIT, but abandon the NIH mindset
- Look to successes in other industries for best practices that work
- Use best practices to improve sustainability and adaptability
- Use the know-how that already exists to reduce healthcare mistakes*

Source:

*Institute of Medicine, *To Err is Human: Building a Safer Health System*, November 1999

Definitions

Sustainability

The ability to support a particular purpose

Adaptability

The ability to adjust to changing conditions to maximize benefits

Project vs. Process

- **Project** – A temporary endeavor undertaken to create a unique product, service or result
- **Process** – A permanent endeavor that reproduces a product or service over time
- Achieving system adaptability and sustainability **demands** post project Continuous Process Improvement (CPI)

Measuring Improvement

During Project

System meets
defined user
requirements

Post Project

Users take
advantage of system
functionality and
improved workflow
to maximize benefits

During and Post Project CPI Needs



Stakeholder commitment
during and post project

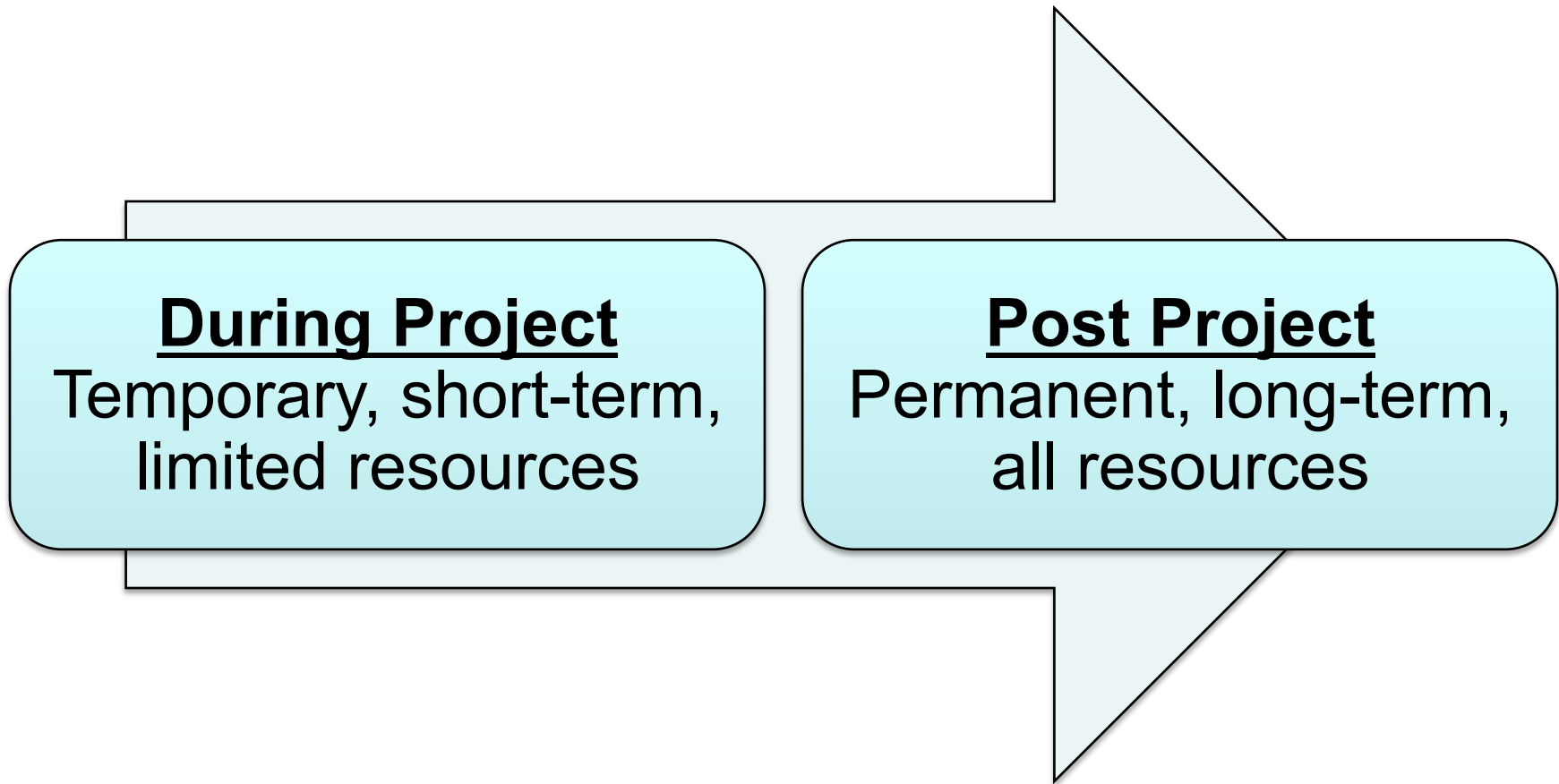
Achievement of project
and ongoing post project
measurable objectives

Workflow improvement
during and after go- live

Stakeholders Analysis

- **Stakeholders** – Persons or groups whose problems, needs or interests are affected by the project
- Analysis
 - **Importance** – Measures priority given by stakeholders
 - **Influence** – Measures degree to which stakeholders can affect the outcome
 - **Commitment** – Measures degree to which stakeholders will participate
 - **Engagement** – Measures stakeholders' willingness to stay informed on issues and their resolution

A Shift in Stakeholder Focus





Sample Survey Question

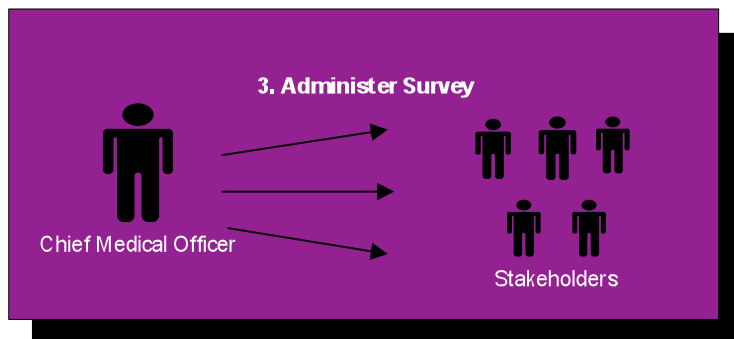
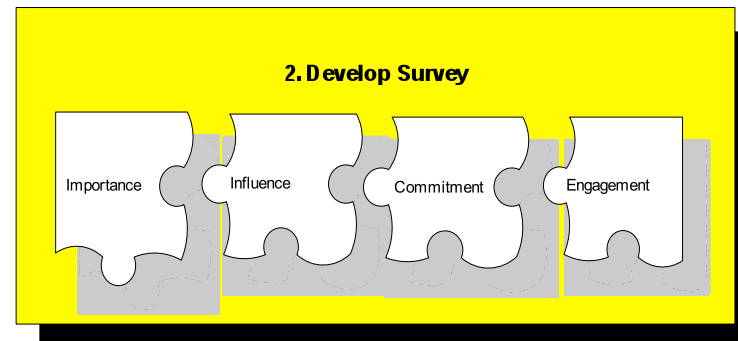
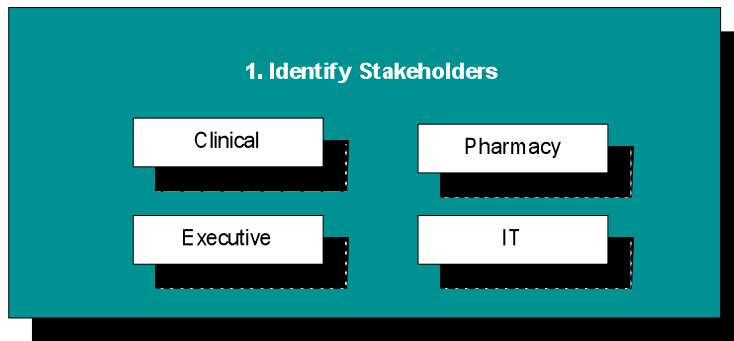
Influence on Project Personnel Resources

Project personnel resources refers to all individuals (e.g., user, vendor, consultant, etc.) that work on the project and the effort required of them to complete associated work assignments or tasks.

14. Please select the response that most closely reflects your role, by phase, for the following statement about EMR project personnel resources: I have the administrative authority to assign personnel to support workflow improvement during and after this project.*

	Yes	No	N/A
Phase I - Planning (three to six months to complete)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phase II - Definition (six to nine months to complete)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phase III - Acquisition (three to six months to complete)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phase IV - Implementation (12 to 18 months to complete)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ongoing - Post project support (Continuous)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Doing a Stakeholders Analysis



4. Aggregate Results

	Clinical	Executive	Pharmacy	IT
Importance	93%	74%	97%	88%
Influence	45%	82%	38%	57%
Commitment	32%	27%	84%	92%
Engagement	68%	83%	74%	89%

Beyond Project Objectives

- Conventional project objectives measure the project
 - Scope
 - Schedule
 - Budget
 - Quality
- Post-project objectives need to measure ongoing new system value (e.g. benchmarks), for example a scheduling system results in continued improvements in
 - Wait times
 - No shows
 - Support for add-ons or walk-ins

Defining Meaningful Objectives

- Describe objectives to be achieved by successful system use
- Identify measurable outcomes to verify objective achievement
- Assign senior executives as objective owners
- Measure executive performance by achievement of objectives

Mapping Outcomes to Objectives

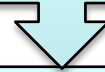
Objectives	Measurable Outcomes	Owners
<p><u>Check for medication interactions</u> -- Link all patient medications and chemotherapy to an automatic crosscheck for interactions.</p>	<p><u>Improved patient safety</u> (Currently Measured) — Reduce number of medical errors, e.g., eliminating legibility issues and decreasing medical omissions by replacing handwritten with computer-generated documents, providing full medication list to chemotherapy pharmacist to enhance alertness to potential medication interactions, etc.</p>	<p>Chief Medical Officer</p>

Leveraging Your Objectives

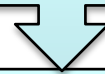
- During Project, link requirements to objectives to
 - Control scope
 - Select system
- Post Project, define CPI objectives to
 - Promote “buy-in”
 - Correct workflow inefficiencies
 - Maximize ROI

Workflow Improvement

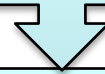
1. Prepare diagrams of current and planned workflow



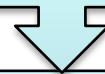
2. Conduct gap analysis based on cost, time and motion



3. Identify improvements to bridge gap

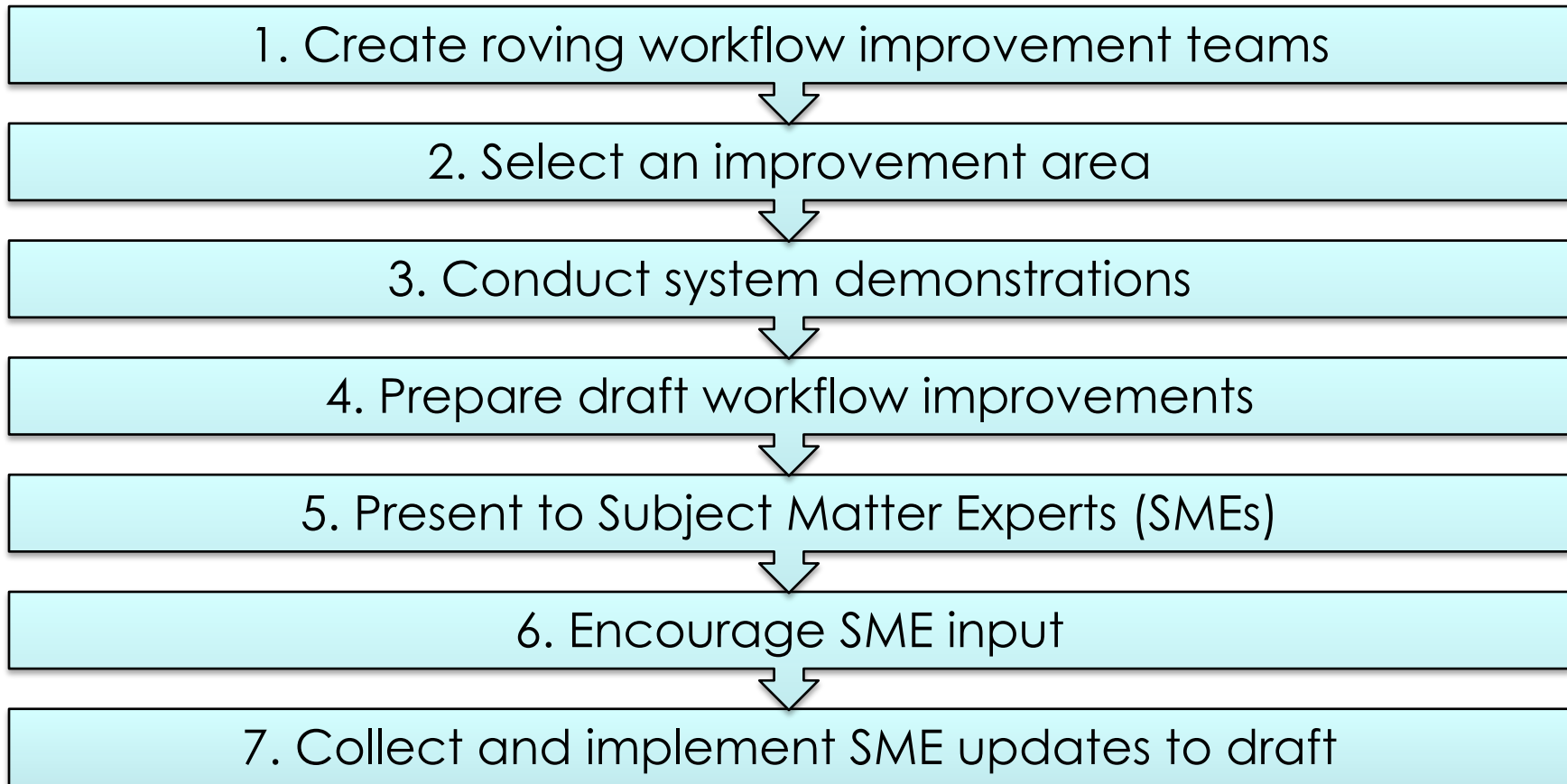


4. Implement improvements

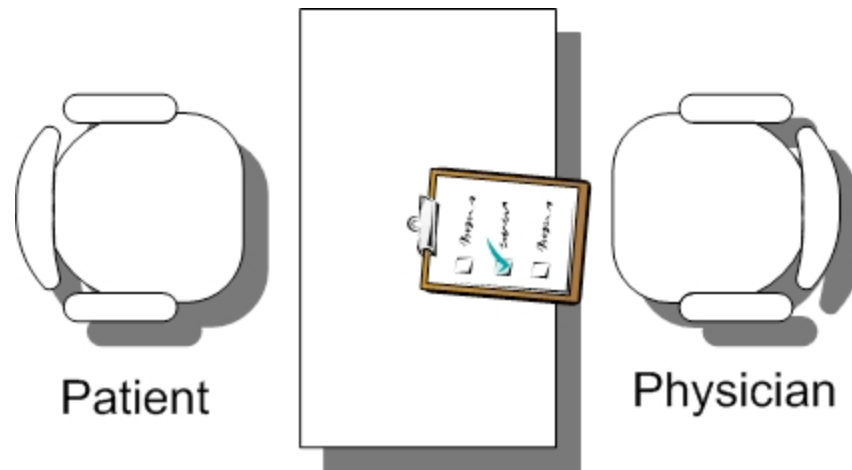


5. Conduct during and post project

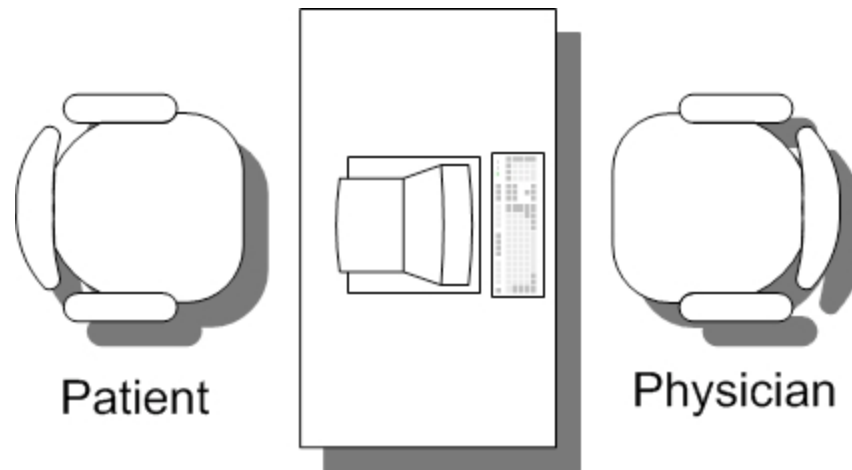
Conducting Workflow Improvement



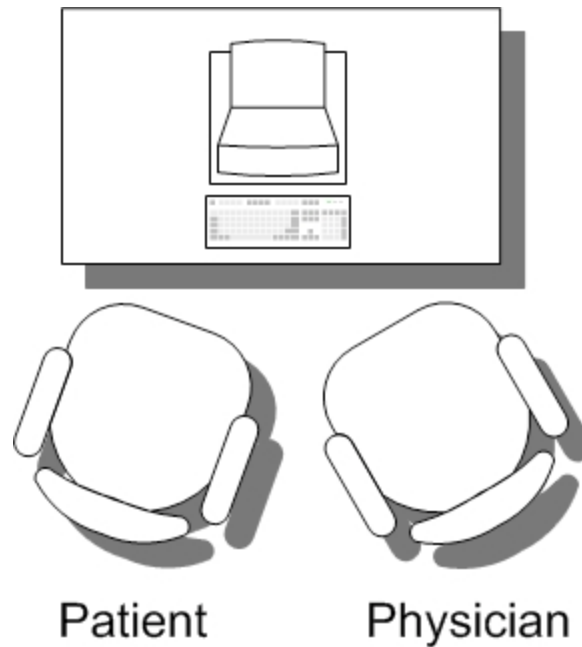
Workflow Before EHR Project



Workflow During EHR Project



Workflow After EHR Project



Impact of Dramatic Change

- Improving workflow
 - Reduces number of steps
 - Decreases amount of time
 - Minimizes moving from place to place (motion)
- Changing work
 - Affects job content
 - Physician reimbursement
 - Face-to-face communications
 - Productivity

Where Do We Go From Here?

- Solving the HIT crisis requires realizing technology and human change must occur in tandem
- Addressing the fact that the “real project” begins after go-live
- Improving HIT adaptability and sustainability will help solve the healthcare crisis



Additional Information

- **Contact**
Scott Coplan
206-287-1703, Ext. # 204
- **Website**
www.coplan.com
- **Blog**
[www. HITprojectmanagement.com](http://www.HITprojectmanagement.com)