Quality Strategy to Follow up Meaningful Use (MU) of Electronic Health Record Implementations

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Introduction

Several Mandates from "The Patient Protection and Affordable Care Act" (ACA), the health reform law, in addition to requirements of "Meaningful Use" demand now intensive reporting, and have created an accountability agenda in the healthcare industry for the next years.

IT strategists recognize that achieving "Meaningful Use" is not an IT project. It is a care transformation initiative that will affect almost every aspect of operations; a cultural change to align physicians with quality goals (Metzger, 2011).

Strong governance and training are essential to making sure everyone understands the importance of the enterprise (Marhefka & Newcomb,2012). Workflow and clinical content must be aligned to facilitate a right and seamless data flow to the EHR, and allow data to be used in performance analytics for tracking and managing required improvements and efficiencies (Morrison, 2010).

This case study sought to **identify best practices for Electronic Health Record (EHR) implementations** in medical practices, and a strategy to promote end user readiness for MU quality processes and reporting compliance. As a **nurse Informatics student in an implementation role**, I served as liaison between users and IT experts, for the coordination of projects, effective use of applications, process improvement, and the integration of EHR technology in accordance with users viewpoint and MU objectives and measures (ANA, 2008).

Purpose & Objectives

Purpose

Develop a roadmap to facilitate end user readiness for MU quality processes and reporting.

Objectives

1. Define a MU knowledge base
2. Assess end user performance on MU objectives and quality measures to identify possible gaps.
3. Identify workflow impacts on end users related with value/utilization, point of care documentation, clinical processes and consumer education/information.
4. Define best training practices for MU.
5. Propose options for continuous end user evaluation related to MU progress.

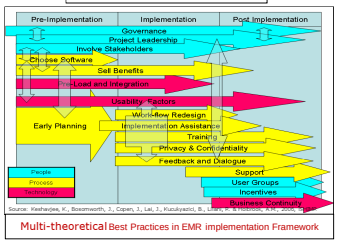
Scenario

The unit of study in this case was a **large academic-medical center in California** with high standards of quality in patient care according with accreditation institutions, multiple implementations at different phases, where "MU" attestations began in 2011. This model was created as part of my Informatics practicum experience at the medical center.

The case is based on **MU stage I in Ambulatory Medical Practices** with a leader vendor system's implementations.

Methods

Framework



Multi-theoretical Best Practices in EMR implementation Framework

The case was supported in a "**multi-level, multi-dimensional meta-framework for successful implementation of EHR in healthcare organizations**" (Keshavjee et al., 2006). Success factor activities are operational over three major phases of an EHR implementation: **pre-implementation**, **implementation** and **post-implementation** phases. Factors relate with **people**, **process**, or **technology** as main concepts.

Design and Tools

This **exploratory descriptive design** was executed through:

- Literature review and expert guidelines study.
- Cristal report analysis of eligible provider (EP) performance and tendencies.
- SharePoint Project documentation observation.
- Physician Office requirement documentation analysis.
- Workflow diagram analysis
- Training sessions and education guide observation
- Expert interview, tool testing and validation

Privacy and confidentiality were granted.

Results

MU Knowledge Base

Description

Integrated and focused dynamic set of information about:

- The HITECH Act and CMS rules
- Vendor specifications
- Business rules

Present main technical and operational aspects:

1) Definitions
2) Requirements
3) Links to legislation and websites of interest

Obtained through systematic collection of information from primary stakeholder sources. Validated through expert opinion.

As Meaningful use stages advance, this knowledge base can also grow with research and institutional policy.

Results - con't

MU Workflow Analysis Tool

Description

This tool is used with workflow diagrams to **assess and describe** the trajectory of **clinical processes** and integrate them to **EHR technology** in accordance with **MU requirements**.

Provide support for structured analysis of workflow attributes:

- Timeliness
- Sequence
- Author
- Secondary consequences (Ex. use of documentation by the next provider).

Provide a **common framework** for:

- Documenting knowledge of processes and the use of applications at point of care.
- For process validation, monitoring and improvement.

Based in AHRQ guidelines and literature review. Validated by expert opinion.

MU 101 Training Tool

In Summary	Maintain active medication list	C-106
What CMS says	**How to use the System**	**Exclusions**
More than 80% of all unique patients seen have at least one entry or an indication of not current medication prescribed recorded as structured data.	Review patient's medication list, mark current medication. Check for the option to discontinue. Click the " Reviewed" button when you finish.	None

In Summary	Implement one clinical decision support rule	C-116
What CMS says	**How to use the System**	**Exclusions**
One clinical decision support rule implemented.	We have enabled your system with Best Practice Advisories and Health Maintenance Alerts. They appear at the right time as a reminder to help your documentation.	None

Eligible Professional (EP)Training Competency Tool

PATIENT ENCOUNTER Patient seen by (EP) COMPETENCIES	TRAINED (Y/N)	OBSERVED (1-2-3)*
1. Record/ Update Problem list-Diagnoses		
2. Review Smoking status		
3. Review Allergies		
4. Review and Reconcile Medications		
5. Review Immunizations		
6. Check Health Maintenance/Best Practices		
7. Write Progress Note Free text/template		
8. Use alerts drug/drug-drug/allergies while prescribing		
9. Finish Clinical Summary (AVS)		
10.Provide patient education/materials		

MU Individual & Group Progress Evaluation Tool

Description

This tool is designed to:

- Review MU criteria,
- Measure performance and
- Risk status of individual providers.

Is useful to:

- Integrate notes and metrics
- Summarize status
- Prioritize issues
- Organize accountabilities
- Manage action items
- Orient best practices

Based in literature review. Validated by expert opinion.

Allows **participation** and **transparency** between **process owners**, **system analysts**, and **end-users** to identify gaps and bring them to the right group for solution.

Results - con't

The Strategy

Meaningful Use Institutional Project

Planning	Analysis	Design		Implementation		Continue Improvemt.
Project Charter	MU Requirements QM & Obj	MU Build/ Reengineer	Test application	Go live		Optimization
			Application Training	Compliance initiatives for End Users		Attestation
Report Plan	Report setup/optimization		Configure test & validate reports	Report Product Baseline data	Report distribu tion	Begin 90 days of MU reporting

MU End User Strategy

Knowledge Base	MU End User workflow analysis	Training & Comp. Evaluat.	MU End User evaluation and action plans	Best Practice Institutionlz. New Research
	Knowledge Base optimization			

Discussion & Projections

Much effort implementing information systems today is focused on technical challenges associated with functionality issues, system specifications, and requirements needed to qualify for funding under the Health Information Technology for Economic and Clinical Health Act (HITECH) (De Vore & Figlioli, 2010). These are important aspects; however they **do not address the "gray areas" that will ultimately have a bigger impact on the success or failure of the MU project and vision.**

Stage I main actors are providers; stage 2 consumers; stage 3 populations, organizations and ultimately society, who will operationalize data. It is necessary to develop best practice strategies oriented to end users to achieve clinical performance improvement and business value (Boberg, 2012).

Conclusions

Reaching Meaningful Use is an organization-wide initiative. It is necessary to review and understand MU requirements as they apply to the organization, providers and consumers. Success will be attained with attention to user particular workflows, understanding of criteria, critical evaluation and the involvement of stakeholders and system users. **Meaningful use is more than an IT Project.**

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