Electronic Medical Record Implementation: Analytics for Optimum Best Practice

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ABSTRACT

Background
Attempting to keep up with current technological trends, healthcare systems are switching to an electronic medical/health record system, or EMR. A better patient experience, a better provider experience, and improved efficiency of patient services ensures seamless patient flow and access to relevant information. A major byproduct of the EMR is clinical and administration health care data that yields analytic, trending and predictive applications for patient services improvement.

Purpose
The purpose of this paper is to describe the most recent evidence in support of EMR implementation success and associated positive outcomes for health care analytics, including a patient engagement scale and a provider satisfaction scale. As background to understanding the current EMR marketplace, this paper will also provide a comparison of two commonly used EMRs, Cerner and Epic.

Project Description [EMR Implementation Best Practices and Outcomes Measurement]
The many benefits of electronic medical records is comprehensive and legible records, clinical decision support such as safety alerts, and remote access to records. These benefits should translate into improved safety/quality of care and improved patient engagement and provider satisfaction. To quantify these improvements, this report demonstrates the use of the Stanford Self-Efficacy Scale to quantitatively measure such patient engagement. Provider satisfaction, in this report, can be measured using the provider culture of safety survey available through CMS.

Methodology for Proposed Intervention
First, the approach for successful EMR/EHR implementation is appropriate data collection and analysis of key quantitative measurements such as patient engagement and provider satisfaction. To quantify these improvements, this report demonstrates the use of the Stanford Self-Efficacy Scale to quantitatively measure such patient engagement. Provider satisfaction, in this report, can be measured using the provider culture of safety survey available through CMS.

STUDY

Data Collection and Analysis

Results

Appendix A: Optimum Best Practices for Stakeholder Involvement in EMR/EHR Implementation
1. Two important stakeholders in the EHR implementation process: clinical providers inside the organization and vendors from outside the organization
2. Stakeholders’ perceptions of the importance of critical EHR implementation issues will differ in each phase of EHR implementation.
3. During the implementation process, priorities shift and stakeholders need to adjust accordingly.
4. Involving multiple stakeholders in meaningful ways means gaining their active participation and effective endorsement in the pre-implementation and implementation phases.
5. Studies point out that implementations that fail do so because implementers make assumptions about user’s requirements which are not shared by end-users and those implementations that enjoy broad-based stakeholder support are less risky and more likely to succeed.

Appendix B: Optimum Best Practices for User Experience/Satisfaction in EMR/EHR Implementation
1. Staff at all levels should be engaged early and throughout the process of refining how technology is used within the organization.
2. Quality improvement should drive system requirements.
3. Planning for changes in end user workflow is one of the first and most important tasks when implementing a new EMR. Companies should invest in workflow analysis so that they can be redesigned and the health IT customized for maximum benefit.
4. Ongoing workforce training and technical support are needed to maintain the system.
5. Leverage the skills of role models such as clinical leaders, super-users, and training coordinators.