



LESSONS LEARNED: AVOIDING SOME OF THE COMMON PITFALLS OF EHR ACTIVATION

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Healthcare organizations across the U.S. are moving towards the adoption and “meaningful use” of electronic health records (EHR) to improve care, reduce costs, and improve organizational efficiency. This is due in large part to the HITECH incentives; however, upcoming changes in the standards for electronic health care transactions, such as the ICD-10 coding requirements on all HIPAA transactions, are also increasingly proving significant drivers for adoption.

The implementation of these new technologies and workflows must occur on top of other organizational initiatives and costs can be enormous. Even after taking on the tremendous staff and financial commitments necessary to implement an EHR, the Department of Health and Human Services estimates a failure rate of 30 to 50 percent; some healthcare providers estimate it to be as high as 70 percent.¹

In light of these statistics, many organizations find themselves asking themselves questions such as:

“What are some of the factors that have contributed to success at other organizations?”

“Are there lessons learned that might make it more likely that our organization will be one of the 50 to 70 percent who succeed?”

The Congressional Budget Office estimates a cost of \$25,000 - \$40,000 per provider for EHR implementation in a physician’s office and an average cost of \$14,500 per bed for the implementation of CPOE in a hospital setting.

Evidence on the Costs and Benefits of Health Information Technology.
Congressional Budget Office.

Ultimately, success depends on a variety of factors including people, process, and technology, as well as the unique character of the organization. However, for those organizations that have gone through the EHR activation process, there are common successes. This paper identifies some of the most essential lessons learned gleaned from recent activation experience in multiple EHR systems in health care systems both large and small. Many of the most critical successes occurred during the following five activation stages: pre-activation planning, activation support staff management, activation support training, activation management (AM), and metrics and reporting. These successes, while not a comprehensive list, represent some of the consistent factors that have proven repeatedly to be just as critical to activation success as the technology and functionality itself.

¹ Charette, Robert. “Bush’s Proposal for Electronic Medical Records Poses Privacy Risks?” *CIO* April 1, 2006. Retrieved on December 8, 2010, <http://www.itmpi.org/assets/base/images/itmpi/privaterooms/robertcharette/WhatHappenedtoDoNoHarmEditorialCIO.pdf>.

Pre-Activation Planning

When pre-activation planning begins depends on the unique characteristics of the organization and activation; however, most of these activities begin no less than four months prior to go-live. During this phase of activation, strategic decisions are defined, impacted core business functions are identified, activation support tools and plans are created, and the activation timeline is finalized. Proper planning and preparation will improve the quality of the project, position the activation for success, and ultimately reduce costs. A few of the critical success factors identified during pre-activation planning include:

- **Development of a Change Management Plan:** Create a carefully crafted Change Management Plan that is in accordance with the organization's communication standards and processes. Messaging should address both the benefits of the new system's functionality and the changes that users should expect to everyday workflows.
- **Development of Support Requirements:** An organization cannot depend solely on their existing staff to support a large-scale activation. Experience shows that large enterprise implementations should plan for a three (or four) to one ratio of additional support staff to internal support. This level of additional staffing makes this one of the most expensive parts of any EHR activation.
- **Development of an Activation Plan:** The organization should thoroughly evaluate the activation and cutover steps for each process and area and include these in a clear and concise Activation Plan. A critical element to any successful Activation Plan is defining a protocol for information updates.
- **Development of Activation Metrics:** Activation metrics are those data points that will determine throughout the activation if the activation is going well. Prior to activation and in conjunction with the leadership team, a baseline should be established and key metrics defined and then clearly communicated to all activation stakeholders.
- **Define Downtime Policies, Procedures, and Tools:** This step ensures that all areas are aware of how to address issues that arise during activation downtime and have the potential to affect productivity and/or patient care. For instance, team members should know how to communicate orders and results in the event that a system, or multiple systems go down such as:
 - The order entry system is up, but lab system is down.
 - The order entry and lab system are both down.
 - Order entry system is down, but the lab system is up.

Each of these scenarios may have similar, but different, processes and tools, so it becomes critically important that leadership and operations agree on how orders and results that occur during downtime make it into the EHR.

Activation Support Staff Management

Large-scale activations require proper activation leadership teams to ensure that productivity levels and patient care standards remain consistently high during activation. These resources help gauge the pulse of the activation, proactively identify and address issues, and are able to make quick decisions to keep the

activation moving in a positive direction. Activation support staff team members cover a wide variety of responsibilities including, but not limited to:

- Coordinating the Command Center
- Leading debrief meetings
- Tracking activation metrics
- Tracking hot issues and escalations
- Ensuring proper activation staffing
- Providing additional nursing support on the units

Having a team of seasoned EHR implementation veterans is an important success factor. Just as important is finding the right Activation Manager to lead this difficult and challenging function. An Activation Manager:

- **Defines Staffing Needs:** When defining staff needs for a large-scale activation, organizations must identify:
 - Number of additional staff members necessary (in addition to current staffing)
 - Type of staff members needed
 - Specific skill types necessary
 - Cost for the defined staff member/skill set
- **Conducts External Staff Recruiting, Hiring, and Training:** It can be difficult to identify, hire, and train the significant number of necessary external skilled support resources necessary to support activation. This staffing challenge becomes especially difficult in an abbreviated period and in a job market where there is fierce competition for skilled IT professionals.
- **Identifies Internal Barriers:** Internal barriers can include difficulty in securing sponsorship from senior leaders and finding clinicians willing to serve as champions for the activation.

More than 60% of CIOs responding to a recent CHIME survey reported that IT staffing deficiencies will possibly (51%), or definitely, (10%) negatively affect their chances to implement an EHR and receive stimulus funding.

Healthcare CIOs Fear IT Staffing Shortages Will Affect EHR Implementations and Other Projects,
College of Healthcare Information Management Executives,
September 2010.

Activation Support Training

The accuracy, effectiveness, and efficiency of end-user and support staff training can mean the difference in activation success and failure. Without adequate and concise end-user training, productivity levels can fall, patient care can suffer, and even the best activation can fail. Training programs should be designed carefully, begin early, train for every step in the process, and address change in workflows, not just functionality. Training should address not only the hospital's staff and physicians, but also the needs of the activation management (AM) team members. These groups have many similar training needs, but each also has its own distinct training needs. A few of the important activities that should be included during activation support training include:

- **Provide Sandbox Time:** If possible, provide AM team members, staff, and physicians with hands-on time with the new system to familiarize themselves with the new technology and facility-specific workflows prior

to go-live. For AM team members, understanding the chosen technology is not enough. They must also understand the workflows that the organization's clinicians and physicians trained on in order to effectively manage and support the activation process. Someone who knows the basic workflow of the organization and is knowledgeable in the details of the selected technology can mean the difference in success or failure. For staff and physician members, this advance exposure allows hands-on experience to the new environment and significantly reduces end-user stress and anxiety during go-live.

- **Provide Training Specific to AM Team Members:**
 - Logistics: This training addresses all the information that AM team members will need to know about how to get to the facility and much about how they will operate when they get there.
 - Getting to Know the Organization: This training addresses information such as hours, culture, organizational structure, current volumes and staffing by department, and how well trained the organization's clinicians and physicians are.
 - Activation Support Goals: This portion of training ensures that all AM team members understand activation support goals and how to measure success against these goals.
 - Escalation Process: This process should be documented and each AM team member should understand the proper way issues are handled. This is a key component to ensure all issues are logged and accounted for at the debrief meetings.
- **Conduct a Dress Rehearsal/Mock Go-Live:** Conduct a combined mock go-live with all involved AM team members and operational areas. The areas addressed during this activity should include, at a minimum:
 - Timeline for cutover
 - Plans and tools for data entry (if data is not being converted from other systems)
 - Staffing plans for each area (operational coverage and leadership responsibility)
 - Contact lists with phone, cell, and pager numbers, for each operational area and the Command Center
- **Define and Train on New Tools and Procedures:** Ensure that both AM team members and the hospital staff and physicians understand the use of the new tools and associated procedures. Utilize departmental operating structures to conduct downtime training prior to go-live.

Activation Management

Projects do not manage themselves. The shift from siloed department-specific implementations to larger scale, organization-wide activations has resulted in the need for larger AM teams. An AM team helps the organization manage and coordinate the entire activation project from pre-activation planning, to post-activation support, through activities such as staffing optimization, issue management, Command Center management, and regular stakeholder debrief and status meetings. Some of the critical factors that a successful AM teams addresses during activation include:

- **Utilization of a Computer-Based Resource Management Tool to Optimize Staffing Levels:** Organizations can expect to increase staffing for the first three to four weeks post go-live. For example, nursing units should generally expect to add one to two additional end-user support resources per shift. Other areas in

the organization can expect similar support staff needs during their hours of operation. These resources are in addition to the necessary patient care clinical staff members and, for that reason, organizations should expect the cost for support hours to make up a significant portion of their activation management costs. The exact amount of time additional staffing is necessary, as well as the necessary staffing mix, varies by organization. This additional staffing must be defined, recruited, trained, managed on-site, and optimized over the course of the project. There is a science and art in the ability to scale up or down resources to effectively optimize support across the entire activation. This ability to optimize resources ensures continued productivity and patient care levels while also containing activation staffing costs. Excel spreadsheets are no longer an effective answer. A computer-based resource management application can take the needs of the organization into account and create staffing schedules optimized to the organization's unique needs.

- **Proactively Manages Issues:** Issue management is another significant factor in activation management. At the root of successful issue management is effective communication. There are endless opportunities for communication failure between stakeholder groups in the fast-paced, ever changing activation environment. Examples of issues a well thought out Issue Resolution Plan might address include:
 - Resource load “on the fly adaption” during activation and then communication of those changes to the appropriate parties
 - Workflow adjustments based on on-the-job work
 - Leadership or project managers caught by surprise when a problem arises
 - Conflict between support staff or trainers and organization staff and physicians around how the EHR changes the workflow and how they do their job
- **Creates a Centralized Command Center:** The activation management team establishes a Command Center that provides sufficient space for team members and then works with the organization's leadership to define senior nursing and medical staff leaders to staff the Command Center. These leaders should be relieved of their daily duties in order to focus completely on supporting the go-live. Successful Command Centers include planned seats for many different roles and functions including the Command Center coordinator, help desk, change management, EHR training, EHR build (multiple areas, if appropriate), and leadership.
- **Conducts Regular Status and Debrief Meetings:** A key part of activation management, as mentioned above, is communication. A comprehensive and clearly communicated meeting schedule ensures that meetings with the appropriate participants, on the appropriate topics, are happening in a timely manner throughout the activation process. Two key meetings that should be included in every meeting schedule include:
 - Command Center Daily Debrief Meetings: These meetings with operational leaders (not just the project team) should proactively share project status, current project team priority issues, and deliver key daily messages. These meetings are held as long as the Command Center is open.

- Hospital/Support Team Member Status Meetings: The support team members and the hospital should be meeting on a regular basis. The AM team is responsible for the meeting schedule, agenda, and conducting these meetings. These meetings ensure that meetings with the appropriate stakeholders are occurring in a timely manner and addressing appropriate agenda items.

Metrics and Reporting

With the opportunity for greater federal funding for the successful implementation and demonstrated “meaningful use” of EHR systems in healthcare organizations, the need for formal evaluation becomes necessary. In order to properly measure progress, a baseline should be taken first to gauge activation success against. Once a baseline is established, specific activation-specific criteria and statistical metrics are defined. Regular metric tracking and reporting is critical to determining if the system is meeting goals, objectives, and expectations. Examples of EHR activation metrics that an organization might report on include, but are not limited to:

- **General Metrics:**
 - # of service desk incidents opened for the facility
 - # of service desk incidents resolved for the facility
 - # of outstanding service desk enhancement requests
 - # of physician issues for the facility
- **Physician Metrics:**
 - # of physician logons
 - % of orders entered by physician
 - Utilization of physicians using documentation
 - # of verbal orders used
 - % utilization of order sets by physicians
- **Clinical Statistics:**
 - # of overdue tasks per person, per unit
 - % of cancelled orders
 - # of overdue medication(s) by unit, by person per 24 hours
 - # of documents signed electronically
 - # of unsigned documents
- **ED Statistics:**
 - ED patient volume
 - Average LOS in hours
 - % of patients LWOT
 - Patient average time from ED door to physician
 - Patient average time from ED door to triage

Summary

While activation success is dependent on a variety of different organizational people, process, and technology factors, experience proves that there are common factors that contribute to activation success. Proper pre-activation planning and preparation, experienced activation leadership teams, accurate and effective activation training, an optimized AM support staff, and the definition and measurement of key metrics are just a few of the many critical factors that make the difference in the 70 percent of organizations who are successful in their activation endeavors and the 30 percent who will fail.

About DIVURGENT:

Founded by a team of consulting veterans, DIVURGENT is a national health care consulting firm focused solely on the business of hospitals and other healthcare providers. DIVURGENT provides advisory, interim management, revenue cycle management, project management, and modeling and simulation services to help improve patients' lives.

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