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EMR and EHR System Implementation Best Practices - Case Studies

By Keith Fulmer

As EMR systems become more prevalent, more information is being made regarding the success or failure of the final integrated system.

Bellevue Family Medicine Association (BFMA) in Bellevue, Washington is a healthcare provider with over 100 patients in daily care. Additionally, they had over 10,000 active patient charts. BFMA implemented a new charting system that took two years. BFMA's implementation succeeded due to the flexibility they gave their physicians on entering data into the system. The use of tablet PCs allowed the user to either type or write into the system. BFMA paid particular attention to how people would utilize the system and accounted for those aspects in their planning and implementation (Schock, 2007). BFMA also utilized structured training on the use of the new charting system. Additionally, BFMA leveraged an outside IT firm to implement the technology in order to free up their own resources.

Yakima Valley Farm Workers Clinic (YVFWC) is a multispecialty community practice. YVFWC operates 18 clinics in Washington and Oregon. YVFWC purpose for implementing an EMR system was to improve patient care and portability of medical information between the various clinics. Patients would commonly visit multiple clinics depending on where they were located at the time they needed service. Without access to all of a patient's records, it became difficult to keep them synchronized. YVFWC decided it was time to implement an EMR system that could be accessed by all sites. TVFWC conducted research to determine the best way to implement their EMR system and discovered that "big bang" approaches were to be avoided.

They leveraged a pilot approach to ease the transition to the EMR by implementing just one module at time. Doing this, they were able to avoid the frustration that quick change brings on along with the unintended consequence of user resistance and distrust. The pilot approach allowed them to continually refine the implementation tactics and overcome obstacles before the larger organization was affected. TVFWC did run into issues related to the lack of standardized processes from site to site. This led to some resistance at local site. They overcame this deficiency by leveraging a consistent rollout team to help train new and consistent processes in the local sites. Training regimens

were utilized before, during and after implementation (Simmons & Tschauner, 2006).

Cayuga Family Medicine in Ithaca, New York, is a small practice consisting of pediatrics and obstetrics employing two physician partners and a nurse practitioner. They implemented an integrated practice management system and electronic chart system when they opened in 2000. The system served primarily to provide electronic versions of the patient chart until one of the partners realized that the software could do more through the use of data entry templates. Once he gained understanding, the physician created a number of electronic forms to facilitate data entry and coding. The effect of this activity provided immediate benefits to improved workflow and data entry. Additional gains in billing were achieved due to the more accurate data (Loehr, 2006). The ultimate improvement in the system utilization came from a small scale version of process engineering and showed that it can work even on a smaller level.

Healthcare Partners Medical Group (HCP) located in California moved from an older EMR system to a newer product. HCP operates 38 sites, and four urgent care centers serving half a million patients. The overall project cost 4 million dollars and was scheduled to last 3 years. HCP leveraged a multifunctional team to identify requirements for the new system and break them down into "must haves" and "nice to haves". The team was also leveraged to evaluate and select the new software package. Vendor considerations were heavily weighted in selecting the new product. HCP focused on ensuring vendor stability and ability to support such a large implementation. HCP analyzed workflows in order address changes to fit the new system and also completed performance testing to ensure the systems could handle large amounts of data transfers. Training was a critical focus for all the users of the systems and included e-learning, instructor led training and individualized training. HCP adopted the use of super users to help field questions during and post go-live. The rollout of the software was accomplished using a pilot method bringing up each location independently. Prior to each location go-live event, managers conducted dry runs of the implementation to ensure that systems and personnel were ready (Yocum, 2006).

A study conducted by Miller and Sim (Miller & Sim, 2004) analyzed survey data provided by 90 respondents regarding their use and perceptions of their EMR installations. It was noted that physician's attitudes were of utmost importance in determining the success of an implementation. Those practices that had an "EMR champion" were more successful and had higher usage of the EMR systems. In contrast,

those practices where there wasn't a champion of the technology, the use of the system was minimal. Also noteworthy was that larger practices with more staff tended to be higher users than smaller practices and the authors associated this phenomenon with the ability of the practice to absorb implementation costs with regard to additional personnel needed to integrate the project.

All references can be found at <http://www.keithfulmer.com>