

HIMSS Stories of Success! – Graybill Medical Group

1 Title

Improving Wellness and Care Management with an Electronic Health Record System

2 Background Knowledge

It is widely understood that providers' wellness and care management efforts serve not only to trim the number and/or severity of preventable diseases, but also to alleviate financial and operational stressors on the healthcare system. Traditional paper-based methods of collecting and disseminating patient data that many providers still cling to, however, are both inefficient and prone to errors, which can significantly degrade the quality of care an organization is able to provide.

3 Local Problem

Serving one in three families with primary care services in Southern California's Escondido, Fallbrook, and San Marcos communities, Graybill Medical Group recognized an opportunity improve the overall health not only of its patients, but also that of the regional population. The group wanted to promote comprehensive, coordinated, preventive care in line with the patient-centered medical home (PCMH) concept. But it knew that doing so would require better patient access and improved data monitoring.

Patient access was hindered by a wait time that averaged nearly 27 days for a preventive care visit and more than 18 days for an office visit. Like other healthcare providers, Graybill had long been monitoring quality indicators. However, the organization realized it didn't have the proper IT tools in place to effectively extrapolate the data and put it to use as a wellness and care management solution for PCMH, quality reporting and pay-for-performance initiatives.

4 Intended Improvement

Graybill desired to improve its wellness and care management efforts by implementing and manipulating technology to help identify and track patient conditions such as diabetes, as well as boost its patient testing/screening rates to ensure early interventions for diseases including cervical and colorectal cancers. Increasing the number of mammograms rendered was another key goal, as well as generating lists of patients eligible for a variety of other clinical quality improvement efforts (including childhood immunizations, CHF, and asthma).

Specifically, the organization believed an EHR would help improve overall quality by: ensuring consistent documentation among caregivers; improving patient safety by lowering the chance of medication errors and adverse effects; and enhancing providers' interventions and outcomes analysis capabilities, among other objectives.

Streamlining the 11-step prescription refill request process (which included taking the call, writing down the medication, waiting for medical records to pick up the request, chart pull, distribution, etc.), is just one example of the many ways Graybill believed technology could address these objectives. Another involved the use of bi-directional laboratory interfaces to support quarterly physician performance reports.

The organization's medical and nursing directors became the clinical champions, realizing the inefficiencies and errors common to manual data collection and dissemination processes. Additionally, the finance director had a vested interest in quality improvement to ensure the group was achieving optimal performance under pay-for-performance standards. Having

attempted and failed with an EHR implementation in 1999, Graybill applied lessons learned into a well-planned strategic deployment that could achieve its quality improvement goals.

5 Planning the Intervention

The EHR intervention would initially involve the creation of a multidisciplinary evaluation team, selection of an EHR system, implementation of the requisite networking and IT systems, rollout of the core software (functionality by functionality), customization of practice-specific templates, user training, and a “go live” in which the system was fully operational. Main factors that contributed to the choice of this intervention were discussed in *Question 4: Intended Improvement*, and plans for how the intervention was to be implemented are discussed in *Question 7: Outcomes*.

The organization delivered qualitative results for care management improvements and ROI through comparison data gathered in previous years.

6 HIT Dimensions Utilized

Graybill’s care management and wellness improvement intervention was centered on effective data management via an EHR system. The intervention began with deployment of the CCHIT-certified NextGen EHR. The comprehensive system features patient medical records; demographic, medication, and problem list data management; clinical decision support tools; coding and compliance support; order generation; integration with diagnostic systems; and data transmissions and communications.

Among the capabilities Graybill utilizes, e-prescribing is one of the more notable in terms of injecting safety into the care equation because it eliminates errors that result from illegible handwriting, incorrect dosing, and missed drug-drug or drug-allergy reactions. With the pharmacy interface, Graybill electronically prescribes medications and receives refill requests from pharmacies. The EHR also helps the organization maintain patient records, including demographics, problems, procedures, medications, and allergies; receive allergy, drug-to-drug, and disease interaction alerts; and check eligibility in real-time. Perhaps the greatest benefit to its wellness and care management improvement efforts is the EHR’s integration with digital imaging technologies such as mammography, x-ray, and ultrasound machines, along with a picture archiving and communications system (PACS). Not only does the system prompt the radiology department to schedule an appointment per a physician’s request, but the results are automatically loaded into the EHR, giving the referring physician immediate access to the images.

As a result, the organization is able to import critical data and automatically associate files with a specific patient, encounter, and category. This has enabled providers to more closely monitor patient compliance with preventive care and disease management services. And since radiology data is often directly linked to key pay-for-performance measures, the system allows for easy extraction and population of health maintenance and disease management reports.

7 Outcomes (Nature of setting and improved intervention)

Graybill operates in the highly regulated and extremely competitive Southern California market. It is the largest primary care provider in the inland region of San Diego’s north county with 50 licensed providers delivering more than 150,000 patient care visits annually. The organization has always considered itself among the more progressive in the San Diego region and, true to its nature, believed that IT would become the catalyst for wellness and care management improvements.

Following its decision to deploy an EHR, Graybill initiated an RFP process that narrowed the list of potential vendors and conducted site visits to view the technologies in action. A multidisciplinary team selected NextGen based on its proven success within large group practices and the company's commitment to helping Graybill achieve its goals of eliminating paper medical records from the practice, improving the quality of care, improving patient satisfaction, creating greater caregiver efficiencies, enhance revenue, and cut costs.

After the vendor was chosen, the selection team became the implementation steering committee responsible for operational decisions including staffing and networking and supporting technology plans. It established an implementation timeline and installed an operations team comprised from various departments such as the clinical, medical records, IT and finance who devoted 50-100% of their time on EHR activities.

Other intervention activities included conducting a workflow analysis of both clinical and administrative processes to ensure information would flow freely; development of templates to support Graybill's specialty areas; document imaging to convert the paper records into electronic records; user training; software implementation; and "go live," in which users were fully operational on the system. For the most part, implementation went off as planned, largely the result of the organization's commitment to and discipline in sticking to the predetermined timeline.

8 Outcomes *(Changes in processes of care/patient outcomes due to the intervention)*

Graybill's EHR intervention produced many positive changes in the care delivery process. With a heightened focus on wellness and care management, there is greater emphasis on patients receiving recommended preventative services, particularly in the areas of childhood immunizations, breast cancer screening, cervical cancer screening, chlamydia, and diabetes care.

EHR use has enabled Graybill to lift the number of senior patients whose chronic conditions are addressed from 50.9 percent to 67 percent. This has occurred, in part, because the group now audits to ensure that chronic conditions have been addressed on an annual basis. Medicare's Hierarchical Condition Categories (HCC) Risk Adjustment score increased from .317 to .62.

The number of mammograms Graybill delivered increased by 10% between 2007 and 2008, and an additional 6% from 2008 to 2009. Overall, Graybill's mammography rate increased by 27% between 2005 and 2010. The group also has obtained the 75th percentile for cervical cancer screening, due to patient reminders.

For the 2009 payment year, Graybill scored in the 75th percentile for diabetic testing scores, which increased by 6% for LDL cholesterol and HbA1c results and 4.4% for microalbumin results. The group anticipates it will be in the 90th percentile for the 2010 payment year. Reporting tools enabled by the bi-directional lab interface allows providers to see which patients are meeting key clinical goals, including recommended levels for LDL, HbA1c, and microalbumin. Patients with unsatisfactory results are then asked by mid-level providers to come in for further services. An online portal allows diabetic patients to access additional educational information related to their condition.

EHR use has also greatly enhanced patient outcomes as measured by increases in patient satisfaction. That satisfaction is attributed to enhanced scheduling capabilities and improved caregiver productivity, which shortened the length of time patients waited for an appointment with their primary care physician to less than three days from a previous average of 18.25 days for office visits and 26.93 for preventive care visits. Automation of the referral process has

allowed the clinic to process 90% of routine referrals within 24 hours versus 48 hours allowed for a routine referral.

E-prescribing has taken handwritten prescriptions out of the equation in favor of safer, more efficient electronic submissions. With a pharmacy interface, providers submit prescriptions electronically with appropriate patient data, which improves patient safety by eliminating critical errors. An average submission rate of 75% for the 2009 calendar year has eliminated the 11-step prescription refill process.

Efficiency increases also led to a 5 percent increase in a physician's patient load. Meanwhile, staff expressed increased satisfaction levels due to automation that saves time and frees them to focus on their core clinical functions.

9 Barriers Encountered

Perhaps the largest barrier Graybill encountered in its implementation was the time and resources involved in scanning paper charts to populate the electronic record. The practice overcame this barrier by hiring additional medical records staff to ensure it kept to the rigorous rollout schedule.

10 Challenges Faced

The challenges Graybill face in implementation are covered under *Question 7: Outcomes*

11 Summary

The most important successes Graybill encountered with its implementation were related to its recognition of the importance of including a wide variety of stakeholders in the decision-making process, and its ability to unite individuals from different departments and levels into a functional Operations Team. The organization also placed a priority on change management, helping staff understand the EHR within the context of the organization's larger goals.

Technically speaking, Graybill ensured that its health records system would seamlessly integrate with the practice management system to ensure optimal workflow, user efficiency, and top-down analytics and reporting. It did this by standardizing on NextGen's Enterprise Practice Management (EPM) system in addition to the EHR.

12 Interpretation

While Graybill achieved outcomes exceeding its initial expectations, there are nonetheless activities the organization wish it had done differently. For one, it would move scanning of the paper charts earlier in the process to avoid a logjam as users went live on the system. Further, it learned a valuable lesson about template creation and the limitations of making changes when the templates are designed in a certain way. Going forward, Graybill has ensured its templates can accommodate future updates from the vendor.

13 Conclusions

Overall, Graybill's EHR intervention proved especially useful to achieving its objectives of improving quality through focused wellness and care management efforts. Graybill's clinical, operational, and financial challenges and successes serve as a practical example of how similar organizations can benefit from an EHR. Given that no two healthcare organizations are alike, another provider's approach to EHR would no doubt provide for an equally compelling story.

It's also important to note that Graybill's IT strategy is continually evolving to accommodate emerging technologies such as provider connectivity via iPhone, as well as the regulatory and

financial nuances of the healthcare delivery system. Among its future plans, the organization aims to expand its interface capabilities with local specialists to improve the flow of patient data.

14 Financial Considerations

Graybill funded the EHR intervention internally and began to realize financial benefits—more than \$5,600,000 directly credited to cost reduction and additional revenues—within five years of implementation.

Further, Graybill's wellness and care management have translated into pay-for-performance incentives. The company earned a total of \$334,596 in 2007 (up from \$128,050 in 2006) from bonuses attributed to clinical measures (\$97,251), patient satisfaction scores (\$163,649), implementation and use of IT (\$71,851), and efficiency quality measurement (\$1,845). The total gain recognized in the 2009 payment year amounted to \$213,297. The reduction is related to the use of IT now being split among other groups deploying an EHR.