

James L. Holly, M.D.

SETMA HIMSS Stories of Success Part II -- Improving Population Healthcare and Safety Through Real-time Data access, Auditing and Reporting Your Life Your Health The Examiner March 4, 2011

(Editor's Note: *The Health Information and Medical Management Society* (HIMSS) is the largest medical-information-technology organization in the world. Their annual meeting which ended today attracts over 15,000 people. Dr. Holly serves on several key committees with HIMSS. In 2006, SETMA was awarded the HIMSS Davies Award which is the most prestigious award for innovation and development in electronic medical records. *HIMSS Stories of Success* is in its second year. It is a high prized program with Tier 1 (the highest) and Tier II designations. **For 2011, SETMA has been awarded Tier I HIMSS Stories of Success**, and is only one of two organizations so designated. This two-part series is a summary of the content which resulted in this award.)

Changes in processes of care and patient outcomes associated with the intervention.

Through its EHR and BI data management tools, SETMA has eliminated any uncertainty about whether it is meeting national quality standards—and its providers no longer need to wait months to receive quality reports from payers. COGNOS software allows every provider to examine performance at the point-of-service on over 200 quality metrics, including age-appropriate screening and preventive care needs.

The discrete data capture capabilities of SETMA's EHR are used to measure, on a daily basis, each individual physician's performance of —best practice|| standards against every applicable healthcare quality measure available. Before a patient is seen, for example, his or her chart is searched to determine if all HEDIS, NQF, PQRI, PCPI, AQA or NCQA standards have been met. Nurses independently initiate the completion of preventive and screening services according to age requirements.

Software also allowed SETMA to create dashboards that display seasonal outcomes patterns. For instance, trending showed diabetes patients were less healthy from October to January because of lax diet, exercise, and medication interventions during the holiday season. Further analysis revealed lower visit and testing frequency as well. As a result, the practice designed a plan to encourage checkups during the holidays. This issue never could have been noticed, or addressed, by looking at individual patient data.

Dashboards allow the identification of population-wide trends that drive the changes in practice policies that improve care. SETMA has been able to analyze patient populations by: provider panel; practice panel; financial class (payer); ethnic groups; and socio-economic groups. Some of the metrics reviewed include: visit and test frequencies; number of medications taken; changes in treatments; and patient education levels.

SETMA feels that tracking only single or a few quality measures will not substantially change outcomes. So it has defined multiple groups of quality measures and reports on their outcomes as well: a cluster is seven or more quality metrics for a single condition (e.g., diabetes, hypertension); and a galaxy is multiple clusters for the same patient (e.g., diabetes, hypertension, lipids and congestive heart failure). Fulfilling clusters and galaxies of metrics at the point-of-care will lead to substantial outcomes improvement, SETMA believes.

Incorporating comprehensive disease management tools within EHR workflow also has furthered the ability of providers to deliver timely, quality care. Tools are available to help facilitate best practices in the diagnosis and treatment of diabetes, hypertension, lipid abnormalities, renal disease, cardiometabolic risk and congestive heart failure. Indeed, the ability to perform quality review while still in the room with a patient bolsters the provision of optimal care during every encounter.

A few noteworthy outcomes of SETMA's data-analysis capabilities include:

- **NCQA recognition** as a top-level, Tier III Patient-Centered Medical Home.
- **AAAH** accreditation in ambulatory care and medical home surveys.
- **Diabetes recognition** from the NCQA Diabetes Recognition Program and
- **Affiliation with the Joslin Diabetes Center** (affiliated with Harvard Medical School).
- **Treatment compliance** at 98% for SETMA providers in regard to guidelines for preventive services and chronic conditions like diabetes, CHF and hypertension.
- **Chronic disease management** tools entrenched in the EHR (for chronic kidney disease, diabetes, hypertension, lipid abnormalities, and more) are used to create highly personalized treatment plans. Even non-nephrology providers, for example, can quickly and accurately assess potential kidney disease.
- **Daily audits** give all providers feedback on patient encounters from the previous day. The immediacy of individual provider performance measurement helps rapidly effect positive change.
- **Activity reports** provided the day prior to a patient visit detail what each patient needs during the next day's visit—including requirements to meet all quality measures being tracked.
- **Personalized patient education** shows progress toward the accomplishment of quality measures. Printers for every exam room allow providers to print personalized education material from the EHR, within workflow, without needing to leave the exam room.

Barriers Encountered

SETMA has been capturing quality metrics for over 13 years, but drilling into the data to analyze results historically was time-consuming. With a huge patient database, it typically took 36 hours to run the reports SETMA desired on a daily basis. While quality metrics undoubtedly can unveil tremendously valuable care patterns, they require the tools and/or staff to analyze complex information quickly.

The most common barrier was the time required to fulfill the quality metrics and to capture the data in a reportable manner. This was overcome with SETMA's philosophy of soft ware development. One principle is, —We want to make it easier to do it right than not to do it at all. The development process resulted in systems design which makes it very easy for providers to track their own performance at the point of care

and for the healthcare team – nurses, aids, unit clerks and providers – to collaborate to perform the needed actions without interfering with patient care and without adding extensive time to the patient encounter. Provider anxiety about public reporting was one of the principles barriers which were overcome by:

- The determination to do this regardless of the data.
- The motivation to improve if the data was not good.
- Their ability to know at the point of care how they are doing.
- The auditing results which showed the areas in which they were performing well and education classes to show them how to improve their performance where it was substandard.

In the end, patient and provider satisfaction with the patient encounter was outstanding. One illustration of this and the principle of making it easier, is in the cardiovascular risk assessment of patients. The AAFP recommends that providers calculate all 12 Framingham risk scores every five years for each of their patients. This would normally take 20-30 minutes to do this by pencil and paper. SETMA designed the ability for providers to calculate all 12 risk scores in **one second**. Thus it can be and is done at every visit and it is reported to the patient also. (We have since added the ability to show the patient how their risk would change if they make an improvement in their health.)

Challenges Faced

Quality in healthcare remains an elusive quest from the standpoint of definition, determination and demonstration. In quality metric design—whether process or outcomes—the piece which is most often missing is a combination of tracking and auditing. Without the right health IT functionalities and processes, SETMA could not address the complex patient-care issues that PCMH seeks to improve.

The absence of national quality standards, particularly in regard to process in critical areas of care was a challenge. SETMA has joined the National Quality Forum and participated in meetings and conferences to learn how to design and develop quality metrics. As a result, where no metrics existed SETMA developed one. SETMA's Lipid Quality Audit is one illustration. There are outcomes quality metrics defined for LDL levels but there are no process audits endorsed by any agency. In the appendix, SETMA's quality audit for the process of Lipid Management is detailed.

Summary

Transparency and quality outcomes measurement are the tools SETMA uses to achieve superior patient-centered care. Practicing medicine without daily analysis of the care provided hinders attempts to engage in best practices. By comparison, tracking provider performance against national quality care benchmarks in real time—and posting that information for internal and public consumption—quickly illuminates areas of excellence and areas needing improvement. The overarching goal: to bolster patient confidence in the standard of care, as well as motivate providers to continue to raise that standard.

Others can create their own tools or they can copy SETMA's. All of our auditing and performance tools are post on our website and can be used without payment to SETMA. The only restriction is that they cannot be copied and sold. By following the trail we have blazed

other practices can accomplish the same things we have in less time and with less cost than we have expended.

The keys to success are:

- Get started – we have never completed anything we did not start
- Accept imperfection initially – processes are not perfect instantly
- Celebrate accomplishments even if they are small
- Be relentless – don't give up and if you fail, start again.

Two events define our success with NextGen EMR and EPM. They occurred simultaneously in May, 1999, only four months after we started using the EMR. The first was our realization that this task was too hard and too expensive if all we were to get out of it was the ability to document a patient encounter electronically. It was this realization which pushed us past electronic patient records to electronic patient management. We realized that we had to develop the functionality for the EMR to enhance the quality of patient care, to increase the satisfaction of patients themselves and to expand the knowledge and skills of health care providers, if it were to be worth it. It also had to expand the healthcare team to include all participants as active, valuable contributions to the delivery of healthcare. In the spring of 1999, we made this transition to electronic patient management and the investment of time and money suddenly was worth it.

The second event occurred in May, 1999, and it set the tone for the next ten years of EMR implementation. In a moment of frustration at the new system, which at this point of development was cumbersome to use and yielded little more than an acceptable record of a patient encounter, one partner said, "We haven't even begun to crawl yet," speaking of the use of the EMR. SETMA's CEO said, "You're right, but let me ask you a question. When your oldest son first turned over in bed, did you lament to your wife, 'this retarded, spastic child can't even walk, all he can do is turn over in bed,' or did you excitedly announce to your wife, 'he turned over in bed!'" He smiled and the CEO added, "If in one year, all we're doing is what we are presently doing, then I'll join you in your lamentation. For now, I am going to celebrate the fact that we have started and that we are doing more than before."

That celebratory attitude has given SETMA the energy and resolve to face hard times and the vision of electronic patient management has given us direction and substance to our goal. Today, we are not what we were, and we are not yet what we shall be, but we are on a pilgrimage to excellence which will never end. We started eight years ago at MGMA; where is the end? There isn't one and that is what helps us get up day after day, excited about the prospect of the future. Mostly what we celebrate today is the team which EMR has facilitated our forming

Interpretation

The next steps SETMA plans to take will focus on improving operational results by analyzing outcomes with financial metrics. As a private practice, it must fund everything strictly on the income it generates. Going forward, the group increasingly

plans to use BI to analyze financial metrics to find ways to decrease costs while maintaining or improving care quality. In the end, SETMA hopes this will allow its providers to treat more patients with the same revenue stream. Data management, it believes, is crucial in efforts to control the costs while maintaining the quality of care and improving patient satisfaction and outcomes.

Conclusions

Physicians can make a difference in patients' lives when they give them the care, treatment, and education they need – and healthcare organizations can prove it with data management reports. Since starting to analyze daily care results for various patient populations, SETMA has found it much easier to comply with reporting requirements and enhance patient care. The practice, for example, used to develop diabetes care quality metrics based on results from 25 or 36 patients. Now, using EHR and BI tools, it generates those quality metrics based on its entire population of 7,600 diabetes patients. The end result is care that is delivered intentionally, rather than coincidentally.

The electronic patient-management tools that support SETMA's fulfillment of quality measurement sets are displayed on the practice website. Anyone can review the content and display of these EPM Tools, without cost, to help guide development of similar applications. Practices nationwide can adapt these powerful tools to inform and empower their own physicians and patients to achieve higher quality care.

Financial Considerations

As a private practice, SETMA funds everything on the income it generates. Cost savings/return on investment analysis will be undertaken in the next phase of operations.