James L. Holly, M.D.

SETMA -- HIMSS Stories of Success
Part I -- Improving Population Healthcare and Safety Through
Real-time Data access, Auditing and Reporting

Your Life Your Health

The Examiner

February 24, 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 award the HIMSS Davies Award (see www.jameslhollymd.com -- In-the- News) 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.)

Background knowledge

Beaumont-based Southeast Texas Medical Associates (SETMA) recognized early on that robust data management‖ rather than simple document management‖ would allow it to initiate effective quality improvement programs. SETMA was founded in 1995 by two visionary physicians who believed in continuum-wide healthcare integration. By 1998, SETMA had purchased the NextGen Healthcare Information Systems EHR with an overarching mission to preserve the health and quality of life for all patients – and do so cost effectively. It is now a multi-specialty clinic of almost 300 employees and 32 providers who annually record more than 120,000 clinic, 20,000 hospital, 9,000 nursing home, and 14,000 physical therapy visits. The EHR securely connects three clinics, two hospitals, emergency departments, 22 nursing homes, provider residences, and six non-clinical locations (e.g., business office, home health, hospice, physical therapy). It maintains a reference laboratory and mobile x-ray services.

Local problem

One of the chief problems confronting all healthcare organizations is something fundamental to human nature: discomfort in the face of change. For SETMA providers, this was compounded by the fact that they typically received retrospective performance reviews. True to what healthcare literature calls treatment inertia, SETMA found that delayed audit results seldom had much impact on provider behavior. The practice realized that overcoming treatment inertia, changing provider and patient behavior, and improving healthcare at the population level could only be accomplished if providers had immediate access to relevant patient data. The group had long used an EHR, but until 2009 did not have the tools or processes in place to allow real-time performance reporting and auditing to spur care-enhancing behavior.

Intended improvement

In February 2009, SETMA co-founder Dr. James Holly attended a workshop about a burgeoning National Committee for Quality Assurance (NCQA) recognition program called the Patient-Centered Medical Home (PCMH). He left the meeting believing that PCMH recognition was a way to demonstrate commitment to quality improvement—to both patients and payers alike. He also understood that it would require scrutiny of patient-care data in order to: change provider and patient behavior; change practice procedures and processes; and improve patient health through a focus on preventive care.

These efforts dovetailed smoothly with SETMA's long-standing dedication to maintaining patient health and quality of life, which incorporates several National Priorities Partnership goals (e.g., patient and family engagement in care; population health focused on wellness and prevention; and patient-centered care coordination). By achieving PCMH recognition at its highest level, SETMA saw opportunity to:

- Incorporate national quality-of-care standards into both the EHR and workflow
- Use tools at the point of service to enable evidence-based medical care
- Measure provider performance in real time
- Examine patterns of care and outcomes using statistical methodologies

To reach PCMH recognition, a practice must provide patient communication with a personal physician who accepts full, primary responsibility for each patient's care. It includes efforts such as answering health-related inquires at any time; providing telephone access with same-day response; and e-mail contact through secure web portals. Continuity of care in the electronic age also involves making each patient's record available at every point of care. The health information exchange (HIE) SETMA has launched will provide accessibility to the patient chart by hospitals, emergency rooms, specialists and primary care providers. In addition, SETMA's secure patient web portal lets patients maintain and periodically review their own personal health record. This places patients at the center of their healthcare decision-making processes, which encapsulates the PCMH ideal.

Planning the intervention

In 2009, SETMA performed a comprehensive analysis of its operations. While the group had focused on disease management during its EHR implementation, it concluded that future plans to improve patient- centered care—and apply for NCQA PCMH recognition—rested squarely on its ability to audit provider performance and patient information in real time against national quality-of-care standards.

The goal was to move from meeting national standards solely on a patient-by-patient basis to measuring treatment across broad patient populations. Toward this end, the cornerstones of the program SETMA developed—and now calls its Model of Care – focused on data tracking, auditing, analyzing, reporting, and improvement capabilities:

- **Tracking**—each provider tracks performance of preventive, screening, and quality standards for acute and chronic conditions while in the exam room with each patient. Tracking occurs simultaneously with the provision of care by members of the entire healthcare team (e.g., physicians, nurses, clerks).

- **Auditing**—over a given patient population, audits examine care patterns by provider, practice, or the entire clinic—with an eye toward identifying ways to improve care processes. This is performed using IBM COGNOS business intelligence (BI) functionalities and, SETMA believes, is the essential piece missing from most healthcare auditing programs.
- **Analyzing**—performance audits are analyzed statistically to measure improvement by practice, clinic or provider. This is how SETMA understands the *meaning* behind its processes and outcomes measures. Analysis focuses on any care discriminators—such as ethnic, age, gender, payer or treatment frequency disparities—to identify leverage points for care improvement.
- **Reporting**—SETMA publicly reports hundreds of quality measures on its website per provider. The goal is to motivate improved performance by providers and increased confidence among patients. Patients also are provided with documented plans of care to help empower their own healthcare involvement. Reporting functions all are designed to overcome both provider and patient—treatment inertia.
- **Improving**—the clinic uses its analysis tools to identify appropriate quality initiatives to pursue. One current initiative, for instance, involves the elimination of all ethnic diversities of care for diabetes, hypertension and dyslipidemia.

Using real-time data and benchmarking tools, the SETMA Model of Care was designed to provide a framework for analyzing, making informed decisions, and continuously improving the quality of care. Even after successfully achieved NCQA and Accreditation Association for Ambulatory Health Care (AAAHC) medical home status, SETMA continues using innovative technologies and processes to more completely transform its Model of Care into a robust PCMH.

HIT Dimensions Utilized

When SETMA began evaluating business intelligence and reporting tools, it had over a dozen years of patient information in its existing electronic database. Generating the reports required for provider auditing typically took days, yet SETMA wanted to generate fresh reports daily. So the group's Chief Information Officer searched for business intelligence (BI) infrastructure that would work in tandem with its NextGen EHR and practice management systems to allow reporting, analysis, dash boarding and scorecards. He selected the IBM COGNOS BI data-mining software – which is based on a single, service- oriented architecture (SOA) – to help gain the desired range of reporting and analysis capabilities.

National quality care standards have been incorporated into SETMA's EHR, and from there into physician workflow. SETMA harnesses the discrete data capture capabilities of its EHR to measure—on a daily basis—each individual physician's performance against every applicable quality measure available. Providers have the capacity to perform real-time evaluation of their performance against measures from HEDIS, NQF, NCQA, PCPI, PQRI and AQA.

SETMA's Model of Care uses HIT for two very distinct purposes: data tracking and data auditing. Tracking is performed one patient at a time, at the point of care, through quality care standards embedded within the workflow of the EHR. By contrast, auditing looks at broad groups of patients. Using COGNOS BI, the practice puts its treatment data through statistical analysis to evaluate the validity of its treatment methods. This allows SETMA to identify disparities in care, gaps in care, potential staff training/education needs, and opportunities for

care improvement.

It remained to be determined how this was going to affect real change in provider performance and to overcome clinical inertia, the tendency upon the part of any provider not to change the treatment strategy even when the patient was either not at or not progressing to goal. In keeping with the patient-centered nature of healthcare in the health home environment, it was determined that this barrier could be met by removing another barrier which is the patient‘s lack of information on the basis of which to measure the quality of care they are receiving. It was determined that public reporting of provider performance on over 200 quality metrics would challenge the providers to improve and would allow patients to judge the quality of care they receive. Therefore, SETMA began in 2009 to report publicly provider performance by provider name.

There was resistance to this initially but this barrier was overcome by the resolution to do this with the determination to improve performance in any areas of deficiency. The results have been remarkable good for patient and provider.

Outcomes (a) Nature of setting and improvement intervention

SETMA has worked for 15 years to develop systems, processes and goals that enable state-of-the-art care for patients and the community. The 19 months spent on the journey to PCMH recognition—from February 2009 until September 2010—underscored the importance of engaging the entire practice in this transformative process. Even with a few providers leading the way, everyone had to set the foundation for creating and sustaining a PCMH. The practice has learned that flexibility and willingness to change must be demonstrated by all in order to fulfill PCMH demands—and its promises. Five of the numerous innovations now incorporated into the SETMA Model of Care:

1. **Strong transitional continuity of care**. All patients are called the day after a hospital discharge to address a list of continuity-of-care concerns. Rather than the typical two-minute ―follow-up call, SETMA staff is allotted 15-30 minutes for in-depth discussion.
2. **Effective care coordination**. SETMA has established a Department of Care Coordination headed by a Director of Care Coordination (DCC). When three or more referrals for consultations, studies, procedures or other care are generated by a provider, a referral automatically goes to the DCC, who then supervises the scheduling of those interventions in order to improve patient safety, convenience, satisfaction, compliance/ adherence, and outcomes.
3. **Targeted follow-up calls**. Physicians ensure that selected patients receive appropriate follow-up calls after clinic visits by using an electronic tickler to designate the appropriate time to call.
4. **Proactive assistance**. Providers can initiate a care coordination referral‖ by structured template whenever a patient needs financial assistance from The SETMA Foundation, faces safety issues, or has other barriers to care.
5. **Patient-centric reports**. At each visit, patients receive a ―coordination summary that provides a succinct review their preventive and screening care, as well as their providers’ performance on over 200 quality metrics. In addition, through automated and personalized ―plans of care and treatment plans, SETMA sustains continuity of care among hospital, outpatient facility, nursing home, clinic and home. These plans inform and empower patients in their own care decisions.

Part II, the conclusion of SETMA’s Stories of Success will appear next week.