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Principles of Quality and Metrics

Governance Board Quality and Safety

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SETMA's commitment to Primary Care is evidenced by my wife and I, with support from The SETMA Foundation and others, having endowed the Dr. & Mrs. James L. Holly Distinguished Professorship in Patient-Centered Medical Home at my school of medicine. This is an interdepartmental and interdisciplinary effort between the schools of nursing and medicine. My wife and I have also endowed a Distinguished Lectureship in PC-MH and have given the initial endowment for the establishment of The Primary Care Institute at the Health Science Center. It is our hope to establish a one year Post-Graduate Fellowship for Primary Care providers the year after they complete their residencies. The Fellowship would focus on practice management, healthcare transformation, public policy and the growth and development of primary care in a patient-centered environment.

While most of the material on our website about SETMA is not peer-reviewed, several pieces are:

1. Agency for Healthcare Research and Quality has published SETMA's LESS Initiative (Lose weight, exercise, stop smoking) on their Innovation Exchange.
2. SETMA received the HIMSS Davies Award in 2005
3. Dr. Holly's multiple presentations at HIMSS
4. SETMA's peer-reviewed Stories of Success was published by HIMSS in 2010.
5. American Medical Association - Care Transitions Quality Metrics Application to Hospital Setting
6. [Joslin Diabetes Center](#) PI-CME - Glyco and Cardio PI-CME

7. [Joslin Diabetes Center](#) PI-CME -- Eldercare PI-CME
8. Centers for Disease Control - Analyzing Cost Control for Medicare Recipients in the Medical Home Setting

The following is a link to my March 21, 2012 presentation entitled, [The Future of Primary Care](#) to the inaugural meeting of the University of Texas Health Science Center at San Antonio School of Medicine's Chapter of the Primary Care Progress.

A Brief History of SETMA

Southeast Texas Medical Associates, LLP (SETMA) is a medium size multi-specialty practice in Beaumont, Texas which began using electronic health records in March, 1998. Shortly after that we determined that our "real" goal was "electronic patient management," i.e., the leveraging of the power and capabilities of electronics to improve the quality of the care we provided to our patients. That history is well documented on our website at www.jameslhollymd.com where all of our electronic patient management tools are displayed.

In 2000, we began auditing and analyzing data including using statistical analysis to look beyond individual patients to assess the quality of our population wise. For diabetes, our mean HbA1c has improved from 7.54 in 2000 to 6.64 in 2011, and our standard deviation has improved from 1.98 in 2000 to 1.2 in 2011. Gradually, we realized that we wanted to do "real time" auditing and analysis of our care. In 2009, we adapted IBM's Business Intelligence software, COGNOS, to healthcare. In that year, we began Public Reporting on over 200 quality metrics on our website.

SETMA's Model of Care evolved to:

Tracking metrics one patient at a time

1. Auditing metrics over panels and populations of patients
2. Analyzing the audited data to find leverage points for improvement
3. Public Reporting provider performance and transparently sharing with our patients that performance.
4. Designing quality improvement initiatives based on these four steps.

A complete description and explanation of this Model of Care can be found here: [Primary Care: The Future - Primary Care Progress \(PCP\)](#)

In this process, SETMA, SETMA came to believe that the future of healthcare will be founded on four domains:

1. Method -- The methodology of healthcare must be electronic patient management.
2. Content -- The content and standards of healthcare delivery must be evidenced-based medicine.
3. Structure -- The structure and organization of healthcare delivery must be patient-centered medical home.

4. Compensation - The payment must be capitation with rewards for quality in both process and outcomes.

In this time, SETMA has become an NCQA Tier-Three Patient Centered Medical Home and a AACH accredited ambulatory care clinic, an AAACH Medical Home and the first multispecialty group to become an affiliate of Joslin Diabetes Center.. We document all patient care in the same data-base whether the patient is in the hospital, home health, physical therapy, hospice, nursing home, clinic or emergency department and are supporting the development of a regional health information exchange.

Quality Metrics Philosophy

SETMA's approach to quality metrics and public reporting is driven by these assumptions:

1. Quality metrics are not an end in themselves. Optimal health at optimal cost is the goal of quality care. Quality metrics are simply "sign posts along the way." They give directions to health. And the metrics are like a healthcare "Global Positioning Service": it tells you where you want to be; where you are, and how to get from here to there.
2. The auditing of quality metrics gives providers a coordinate of where they are in the care of a patient or a population of patients.
3. Statistical analytics are like coordinates along the way to the destination of optimal health at optimal cost. Ultimately, the goal will be measured by the well-being of patients, but the guide posts to that destination are given by the analysis of patient and patient-population data.
4. There are different classes of quality metrics. No metric alone provides a granular portrait of the quality of care a patient receives, but all together, multiple sets of metrics can give an indication of whether the patient's care is going in the right direction or not. Some of the categories of quality metrics are: access, outcome, patient experience, process, structure and costs of care.
5. The collection of quality metrics should be incidental to the care patients are receiving and should not be the object of care. Consequently, the design of the data aggregation in the care process must be as non-intrusive as possible. Notwithstanding, the very act of collecting, aggregating and reporting data will tend to create a Hawthorne effect.
6. The power of quality metrics, like the benefit of the GPS, is enhanced if the healthcare provider and the patient are able to know the coordinates while care is being received.
7. Public reporting of quality metrics by provider name must not be a novelty in healthcare but must be the standard. Even with the acknowledgment of the Hawthorne effect, the improvement in healthcare outcomes achieved with public reporting is real.
8. Quality metrics are not static. New research and improved models of care will require updating and modifying metrics.

SETMA currently tracks the following:

- 34 NCQA HEDIS measures;
- 14 NCQA Diabetes Recognition Metrics;
- 35 NQF-endorsed measures;

- 27 PQRS measures;
- 9 PCPI measures related to the physician role in hypertension management;
- 43 measures of the Bridges to Excellence program for Asthma, Chronic Stable Angina, Congestive Heart Failure, COPD, Diabetes and Hypertension;
- 10 PCPI related to Diabetes;
- 6 PCPI for Stages 4 and 5 of Chronic Kidney Disease;
- 5 PCPI for Chronic Stable Angina;
- 7 PCPI for Congestive Heart Failure;
- 20 PCPI Transition of Care measures.

We are also participating in the Guidelines Advantage Program which is a collaborative between the American Heart Association, the American Diabetes Association and the American Cancer Society. And we are tracking the metrics associated with the MA STARS, the ACO quality metrics and the Meaning Use metrics.

In addition to endorsed-measurement sets, SETMA tracks these self-designed quality measures: 10 measures related to hyperlipidemia; 12 measures related to Chronic Kidney Disease Stages 1-III. Also, in the hospital setting, SETMA has designed an internal study to identify patterns in hospital readmissions, such as lengths of stay, morbidities and co-morbidities, socio-economic status, ethnicity, gender, age, follow-up calls, follow-up visits in clinic, etc.. The purpose is to control cost and increase safety by reducing preventable readmissions to the hospital.

Population Management and Quality Improvement Metrics

SETMA tracks a number of key data points for diabetes, hypertension and hyperlipidemia for its entire patient population. These measures are compared between patients who are controlled against patients who are not controlled. Secondly, the results for the controlled and uncontrolled populations are further analyzed by gender, age, ethnicity, numbers of medications, frequency of visits, frequency of test, income and other measures in an effort of to reduce disparities in patient care across all demographics.

To ensure timely compliance by providers, SETMA has designed functions with its EHR to alert providers to patient conditions which must be reported to local or state agencies for infectious disease control. SETMA reports the results of all of measures publicly, by provider name, at www.jameslhollymd.com.

The Limitations of Quality Metrics

The New York Times Magazine of May 2, 2010, published an article entitled, "The Data-Driven Life," which asked the question, "Technology has made it feasible not only to measure our most basic habits but also to evaluate them. Does measuring what we eat or how much we sleep or how often we do the dishes change how we think about ourselves?" Further, the article asked, "What happens when technology can calculate and analyze every quotidian thing that happened to you today?" Does this remind you of Einstein's admonition, "Not everything that can be counted counts, and not everything that counts can be counted?"

Technology must never blind us to the human. Bioethicist, Onora O'Neill, commented about our technological obsession with measuring things. In doing so, she echoes the Einstein dictum that not everything that is counted counts. She said, "In theory again the new culture of accountability and audit makes professionals and institutions more accountable for good performance. This is manifest in the rhetoric of improvement and rising standards, of efficiency gains and best practices, of respect for patients and pupils and employees. But beneath this admirable rhetoric the real focus is on performance indicators chosen for ease of measurement and control rather than because they measure accurately what the quality of performance is."

Technology Can Deal with Disease but Cannot Produce Health

In our quest for excellence, we must not be seduced by technology with its numbers and tables. This is particularly the case in healthcare. In the future of medicine, the tension - not a conflict but a dynamic balance - must be properly maintained between humanity and technology. Technology can contribute to the solving of many of our disease problems but ultimately cannot solve the "health problems" we face. The entire focus and energy of "health home" is to rediscover the trusting bond between patient and provider. In the "health home," technology becomes a tool to be used and not an end to be pursued. The outcomes of technology alone are not as satisfying as those where trust and technology are properly balanced in healthcare delivery.

Our grandchildren's generation will experience healthcare methods and possibilities which seem like science fiction to us today. Yet, that technology risks decreasing the value of our lives, if we do not in the midst of technology retain our humanity. As we celebrate science, we must not fail to embrace the minister, the ethicist, the humanist, the theologian, indeed the ones who remind us that being the bionic man or women will not make us more human, but it seriously risks causing us to be dehumanized. And in doing so, we may just find the right balance between technology and trust and thereby find the solution to the cost of healthcare.

It is in this context that SETMA whole-heartedly embraces technology and science, while retaining the sense of person in our daily responsibilities of caring for persons. Quality metrics have made us better healthcare providers. The public reporting of our performance of those metrics has made us better clinician/scientist. But what makes us better healthcare providers is our caring for people.

Team Approach to Healthcare Delivery

The ideal setting in which to deliver and to receive healthcare is one in which all healthcare providers value the participation by all other members of the healthcare-delivery team. In fact, that is the imperative of Medical Home. Without an active team with team-consciousness and team-collegiality, Medical Home is just a name which is imposed upon the current means of caring for the needs of others. And, as we have seen in the past, the lack of a team approach at every level and in every department of medicine creates inefficiency, increased cost, potential for errors and it actually eviscerates the potential strength of the healthcare system.

Why is this? Typically, it is because healthcare providers in one discipline are trained in isolation from healthcare providers of a different discipline. Or, they are in the same buildings and often are seeing the same patients but they rarely interact. Even their medical record documentation is often done in compartmentalized paper records, which are rarely reviewed by anyone but members of their own discipline. This is where the first benefit of technology can help resolve some of this dysfunction. Electronic health records (EHR), or electronic medical records (EMR) help because everyone uses a common data base which is being built by every other member of the team regardless of discipline. While the use of EMR is not universal in academic medical centers, the growth of its use will enable the design and function of records to be more interactive between the various schools of the academic center.

And, why is that important? Principally, because more and more healthcare professionals are discovering that while their training often isolates them from other healthcare professionals, the science of their disciplines is crying for integration and communication. For instance, there was a time when physicians rarely gave much attention to the dental care of their patients, unless they had the most egregious deterioration of teeth. Today, however, in a growing number of clinical situations, such as the care of diabetes, physicians are inquiring as to whether the patient is receiving routine dental care as evidence-based medicine is indicating that the control of disease and the well-being of patients with diabetes is improved by routine dental care. Also, as the science of medicine is proving that more and more heart disease may have an infectious component, or even causation, the avoidance of gingivitis and periodontal disease have become of concern to physicians as well as dentist.

Disruptive Innovation

In addition, Medical Home places major emphasis upon issues which historically have been the concern of nurses. Physicians who use EMRs are discovering that the contribution of nursing staff can make the difference in the excellent and efficient use of this documentation and healthcare-delivery method. No longer is the nurse a “medical-office assistant” ancillary to the care of patients, but the nurse is a healthcare colleague central and essential to the patient’s healthcare experience. As evidence-based medicine expands the scope of what The Innovator’s Prescription: A Disruptive Solution for Health Care By Clayton M. Christensen labels as “empirical medicine” which ultimately leads to “precise medicine,” it is possible for physicians and nurses to be a true-healthcare delivery team, as opposed to the nurses only being an aide to the physician.

It is as a result of the need for the integration of healthcare disciplines at the delivery level, that the imperative becomes obvious for the restructuring of the training of the members of this healthcare team. And, the first change must come in the relationships between the leaders of the training programs who educate and mentor future healthcare scientist, teachers, caregivers and researchers. The educational leaders must model this integration for their disparate student bodies and that modeling will require the investment of the most precious and rare resource: time.

Glue? Adhesion and Cohesion

What is the model for this restructuring of the relationships between schools in the academic healthcare centers? It has been suggested that there is “glue” which unites the members of the various schools in an academic healthcare center, which will ultimately create this team. I would argue with that. Glue is an adherent. “Adherence” is described and simultaneously defined by the following:

- “Two dissimilar parts touching each other but not fused.”
- “The union of separate parts; tending to adhere to or be connected by contact.”

If propinquity is the principle motivation for the forming of a team, it will not survive the stresses and pressures which tend to make the team fly apart.

On the other hand, “cohesion” is “the bonding together of members of an organization/unit in such a way as to sustain their will and commitment to each other, their unit, and the mission.” Synonyms of “cohesion” are “harmony, agreement, rationality.” Here is the source of the union of the various elements of the healthcare team in training. It is in the recognition of their commonness and in the acknowledgment of their being part of the same “organism.”

Harmonics

The concept of “harmony” is valuable here also. Harmony is not the absence of discord; it is the presence of a common nature. The typical definition for a harmonic is “a sinusoidal component of a periodic wave or quantity having a frequency that is an integral multiple of the fundamental frequency.” I smiled and chuckled aloud as I wrote this last sentence. It is a mouthful, but how is it related to our problem of healthcare delivery? If you have a room filled with tuning forks of different frequency and you strike one of the forks, all of the forks which are of the same frequency or a multiple of the same frequency, as the one struck, will begin to sound. Those which are intrinsically different will remain silent.

In a room of educators, some health science, some historians, some vocalists, some archeologists, etc., when the sounding is of excellent in healthcare delivery; when the sounding is of evidence-based medicine; when the sounding is of containing the cost of healthcare while maintaining the quality; when the sounding is of increasing the accessibility of healthcare by removing barriers of affordability, linguistics, literacy, etc; each member of the healthcare-education team, whether nurse, dentist, physician, scientist, physical therapist, laboratory technician or other, will begin to resonate, as they are all coherent, by their nature, to the process of sustained improvement in the delivery of healthcare.

It is as if the healthcare-education team, as the healthcare-delivery team, has become a symphonic orchestra made up of instruments which are different in sounding method but which harmonize to produce an aesthetically satisfying result. Remember, the Greek word “symphonia” means “sounding together.” So it is that the members of the healthcare-education and the healthcare-delivery team “resonate together” to produce the results we all desire.