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Medical Home Series Two Part XVI Quality Metrics in the Medical Home By James L. Holly, MD Your Life Your Health The Examiner November 3, 2011

One of the greatest inventions in western civilization was the front porch. The porch so defined American culture that in the first decades of the “technological 20th Century,” the most popular magazine, *The Ladies Home Journal*, had an annual “Porch Edition,” in which illustrations, diagrams and building plans for various kinds of “front porches” were described. The front porch was the community center, family gathering place, neighborhood visiting center and the communication hub for much of what was great about America.

The porch was the coolest place in the house. It provided the opportunity for families to connect with their friends. It was the place where people who did not have the time to visit, greeted one another with a wave, or a loud “howdy.” I remember as a child sitting on the porch, or returning home to find my parents sitting on the porch. Whether singing “Swanee River” or reviewing the family album which is in my mind, the porch and my parents will always be cherished parts of my memory.

The Encroachment of Technology

The porch tied families and communities together. I remember sitting on the porch and wishing that there was not so much dust when someone passed on the dirt road in front of our house. Then one day, the road was paved. However, this technological advance of a “black top” road actually increased our isolation, as less and less time was spent on the porch and more and more time was spent on the smooth road. Then the ultimate advance came. I was a teenager when our family physician replaced the air conditioners in his home in town. He gave the old air conditioners to his dear friend, my father. I can feel the coolness today. It was a great day to have “conditioned air.” You could be warm in the winter – we had heat – and cool in the summer, but what you could not have was the community connection of the front porch because it was not air conditioned. We didn’t sit on the porch very often after that.

Healthcare Technology

Like the loss of the community created by the loss of the front porch, technology has improved what we can expect of healthcare but it has not necessarily ultimately improved the quality of our lives. There was a time, because there wasn’t much that we could do about it, that we did not spend all of our time thinking about extending the length of our life; we spent all of our time living.

The New York Times Magazine of May 2, 2010, carried an article entitled, “The Data-Driven Life,” which asks 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?” The article asks, “What happens when technology can calculate and analyze every quotidian thing that happened to you today?” I admit I had to look up the word “quotidian.” It means “daily; occurring or recurring every day; common, ordinary, trivial.” 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 on our technological obsession with measuring things. In doing so she echoes the reality that 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 practice, 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 problem” we face. It is my judgment that the major issue facing healthcare delivery today is that men and women, boys and girls have replaced the trust they once had in their physician with a trust in technology. It is as if the “front porches” of healthcare have disappeared and the air-conditioning has forced us inside the building so that we can’t say “howdy” to one another any longer.

The entire focus and energy of “health home” is to rediscover that 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 pure technology alone are not as satisfying as those where trust and technology are properly balanced in healthcare delivery.

The challenge for our new generation of healthcare providers and for those of us who are finishing our careers is that we must be technologically competent while at the same time being personally compassionate and engaged with our patients. This is not easy because of the efficiency (excellence x time) of applied technology. A referral or a procedure is often faster and more quantifiable than is a conversation or counseling.

Quality Metrics

No one would argue that quality metrics are the only solution to healthcare improvement. Those who grapple with the design of quality metrics do not sit around thinking up new ways to aggravate healthcare providers. Using scientific methodology and a growing body of medical literature on quality metrics, these pioneers look for leverage points in identifying potential for

real change in healthcare-delivery processes, which will reflect real change in the quality of patient health. Unfortunately, quality metrics are not static such that once you identify one metric that it will have permanent relevance to quality improvement. Once processes are in place, such that the outcomes are virtually totally dependent upon the process, rather than healthcare provider performance, new metrics must be found to move the system further toward excellence.

A single quality metric for a complex disease process will have little if any impact upon patient safety and health. And, all quality metrics of value should point to treatment change which will improve patient health. Though a single metric is of extremely limited value, a “cluster,” or a “galaxy” of quality metrics can effect real change in healthcare quality and in patient health. A “cluster” is defined as a group of quality metrics (seven or more) which define quality treatment standards in both process and outcomes for a single disease process. “Comprehensive quality measures” for diabetes are a good illustration. Unfortunately, PCPI, NQA, NCQA Diabetes Recognition, AQA, PQRI, HEDIS and Joslin Diabetes Center, all have comprehensive quality measures for diabetes; and, they are all different.

A “galaxy” of quality measures is a group of “clusters” which relate to the health of a single patient. When “comprehensive quality measures” for diabetes, hypertension, dyslipidemia, CHF, Chronic Stable Angina, Cardiometabolic Risk Syndrome, Chronic Renal Disease Stage 1-III and then Stages IV-ESRD are identified and measured for a single patient, the successful meeting of those metrics, which may exceed 50 in number, WILL reflect quality treatment and WILL result in improved health.. Quickly, physicians will say, “But, that will take a two-hour visit for each patient.” That would be the case if we were using paper records; in fact, two hours by paper may not be enough time to accomplish all of this. However, with electronic patient management via a well-designed electronic patient record, and with a well-trained and highly functioning healthcare team, this “galaxy” of metrics can be met within in the time and economic constraints currently existent in healthcare in the United States.

How Can Quality Metrics Effect Quality Care?

While quality metrics will always reflect quality, they will not always effect quality unless they are transparent to the healthcare provider at the time and point of a patient encounter. A “report card” delivered retrospectively, six months to two years after the care event which was measured, will have absolutely no impact on provider behavior. But, if the provider is able to “see” his/her performance at the time of the patient encounter, behavior will begin to change. And, if the panel or population a single provider manages, or participates in managing, has data aggregated daily, monthly, quarterly and annually, treatment inertia can be overcome. And, finally, when that provider’s performance is publicly published by provider name, treatment inertia will disappear.

As the pressure increases for healthcare organizations and for healthcare providers to produce quality outcomes in healthcare delivery, to prove that they are delivering quality and to report the results of their performance, there are an increasing number of agencies who are publishing standards of measurement of quality. The simplest way to measure quality is via data analysis, but this restricts measurement to processes or outcomes which can be expressed numerically or

with simply “yes” or “no” answers. The problem with identifying and measuring quality is that quality in healthcare is often the result of complex processes which are not subject to simple measurement.

Diabetes is a target of quality measures for several reasons:

1. Process Quality Measures, i.e., was a hemoglobin A_{1c} (HgbA_{1c}) done, and Outcomes Quality Measures, i.e., what was the HgbA_{1c} value, are easy to determine and to report.
2. Standardization of the treatment goals for the elements of diabetes are generally known and accepted.
3. Standardization of methods for laboratory testing is generally accepted.
4. These three make diabetes a model for the idea of “precision medicine” presented in *The Innovator’s Prescription: A Disruptive Solution for Health Care*. “Precision medicine,” exists “Only when diseases are diagnosed precisely...can therapy that is predictably effective ...be developed and standardized. We term this domain *precision medicine*.” The care of diabetes calls for little intuitive judgment or guess work. Anyone willing to learn the principles can do excellent care of diabetes.
5. Diabetes is a devastating disease but evidence-based medicine demonstrates that aggressive and successful treatment dramatically changes the outcome of the disease.
6. Diabetes is a major public health problem in that the increasing prevalence of diabetes is almost on the scale of a pandemic.
7. The cost of caring for diabetes and its complications is enormous making the potential benefit of treating the illness both for the individual and for the society large.

Each of these makes diabetes an ideal condition for the development of quality metrics. Yet, one of the problems with quality measures is demonstrated here. There are seven “comprehensive diabetes quality measures sets” and all of them are different. They are not contradictory; they are just not the same. This complicates tracking and auditing of provider performance. SETMA and others are encouraging that one standardized quality measures set for diabetes be adopted by all. Eventually this will happen, but even as we argue that the treatment of diabetes is an example of “precision medicine,” some of the elements of that process are imprecise.

Limitations of Quality Metrics

Even as we want to talk about ‘precision medicine’ and even as we want to measure quality using quantifiable processes and outcomes, we still have to admit that there are limitations to quality metrics. Because healthcare does not deal with machines but with people, there will always be subjective, poorly quantifiable elements to quality in healthcare.

There are several critical steps which can help bridge the gap between quality metrics and true quality in healthcare. At the foundation of quality healthcare, there is an emotional bond – a trust bond –between the healthcare provider and the patient. It is possible to fulfill all quality metrics without this bond; it is not possible to provide quality healthcare without it. That is why the

patient-centered medical home (PC-MH), coupled with the fulfilling of quality metrics is the solution to the need for quality healthcare.

Quality healthcare is a complex problem. Measureable processes and outcomes are only one part of that complexity. Communication, collaboration and collegiality between healthcare provider and patient, between healthcare provider and healthcare provider, between healthcare providers and other healthcare organizations are important aspects of that complexity also. Data and information sharing within the constraints of confidentiality add another layer of complexity. All of these aspects of healthcare quality can be addressed by technology but only when that technology is balanced by humanitarianism. .

The good news is that the right questions are being asked and historically in that setting .the right answers have been found. We will continue to pursue quality healthcare and we will continue to use quality metrics. We will also realize that the one does not necessarily produce the other and viewed incorrectly the two can become incompatible.