Solving the Healthcare Value Equation

As a number of public and private drivers intersect, many of which contributed to legislative healthcare reform, patients are becoming increasingly involved in their care and embracing a self-oriented, more consumer-focused mindset to making healthcare decisions for themselves and their families. Solving the ‘Healthcare Value Equation’ merits a more consistent and transparent view of the quality and costs related to the care being delivered to patients as the consumers of that care. It also requires utilizing appropriate collection and risk-adjusted methods to ensure relevant data informs outcome-oriented, evidence-based approaches.
Introduction

One of the most notable shifts in healthcare is the growing active role of patients in their own care. Driven by the Patient Protection and Affordable Care Act (PPACA), or commonly called the Affordable Care Act (ACA), which mandates – among other things – that every state create a consumer-oriented marketplace where individuals are provided information and can purchase healthcare insurance. This mandate has been coupled with private and public reform that has continued its focus on the value-based reimbursement that requires healthcare providers to document quality of care outcomes. As a result, patients are becoming increasingly involved in their care and embracing a self-oriented and more consumer-focused mindset to making healthcare decisions for themselves and their families.

Despite this shift and the advent of healthcare reform, measurement and transparency of outcomes that matter to patients as consumers remains limited, although certainly becoming more relevant and demanded. As we contemplate unlocking the potential of the Value Equation, the importance of a more consistent set of standard metrics for major and chronic medical conditions is elevated to include well-defined methods for collection and risk adjustment.

The Value Equation

There is little disagreement that the U.S. healthcare economy is unsustainable. To address this situation, unparalleled public and private reform is underway to usher in a new economy that rewards quality, efficiency and collaboration. The continued reform effort is shifting focus from the volume of services delivered to the value created for patients. Value has been defined differently by several organizations. For example, University Hospital (UH) defines value as the sum of quality plus efficiency, with quality care being “care that is safe, effective, patient centered, timely, efficient and equitable.” For the purpose of this article, value will be defined as the outcomes achieved relative to the cost of services provided.

Hospital Value-Based Purchasing (VBP), Hospital Acquired Conditions (HAC) and Hospital Readmissions Reduction Program (HRRP) are part of the Centers for Medicare & Medicaid Services’ (CMS’) long-standing effort to link Medicare’s payment system to a value-based system to improve healthcare quality, including the quality of care provided in the inpatient hospital setting. All three of the programs are part of the recent public reform underway that attaches value-based metrics to reimbursement. The metrics that comprise these programs account for the largest share of Medicare spending, affecting payment for inpatient stays in more than 3,500 hospitals across the country.

The most recent research from the Agency for Healthcare Research and Quality indicates that approximately 1.2 million fewer patients were harmed between 2010 – 2013, which resulted in 50,000 fewer patient deaths and approximately $12 billion in costs saving. The data also indicate that there is still progress to be made, and HACs continue to be a significant source of morbidity in addition to healthcare costs.
The continued emphasis on value-based reimbursement by the nation’s largest payer has sponsored action by states and the private sector to create innovative payment models. Embracing the idea that today’s payment methods most certainly will be different going forward and understanding the potential opportunities and threats associated with the shift to value-based reimbursement remain crucial business issues for every provider across the country. University Hospitals (UH) has embraced this idea and modified its healthcare delivery model by investing in multiple payment models, including multiple ACOs for children and Medicare adults, and participating in state and commercial managed care contracts to live out its mission of no needless deaths, no needless pain and suffering.

Consumer-Oriented Healthcare Tools

**Hospital Compare and the Overall Hospital Quality Star Rating**

On January 16, 2016, the Centers for Medicare and Medicaid Services (CMS) announced that hospitals will have access to its Hospital Compare Preview Report through the QualityNet Secure Portal. The Overall Hospital Quality Star Rating provides a simple overall rating for informed consumers to use when accessing data from Hospital Compare to make healthcare decisions. The Star Rating used 62 of the 113 metrics in determining the summary score and then placed heavy emphasis on the outcome related categories over the process oriented categories through the weighting process.

The overall rating is generated by combining multiple performance dimensions of quality into a single summary score. Hospital Compare enables consumers to select multiple hospitals and directly compare performance measure information related to heart attack, heart failure, pneumonia, surgery and other conditions. These results are organized by six categories:

1. Patient Survey Results
2. Timely and Effective Care
3. Readmissions, Complications and Deaths
4. Use of Medical Imaging
5. Linking Quality to Payment
6. Medicare Volume

---

**Figure 1: Interim Update on 2013 Annual Hospital-Acquired Condition Rate and Estimates of Cost Savings and Deaths Averted From 2010 to 2013**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse Drug Events</td>
<td>43.8%</td>
<td>11,540</td>
<td>$2,885,000,000</td>
</tr>
<tr>
<td>CAUTI</td>
<td>14.4%</td>
<td>4,427</td>
<td>$190,000,000</td>
</tr>
<tr>
<td>CLABSI</td>
<td>0.8%</td>
<td>1,998</td>
<td>$183,600,000</td>
</tr>
<tr>
<td>Falls</td>
<td>3.8%</td>
<td>2,750</td>
<td>$361,700,000</td>
</tr>
<tr>
<td>Obstetric Adverse Events</td>
<td>0.8%</td>
<td>20,272</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>Pressure Ulcers</td>
<td>21.2%</td>
<td>1,297</td>
<td>$4,760,000,000</td>
</tr>
<tr>
<td>Surgical Site Infections</td>
<td>3.5%</td>
<td>1,150</td>
<td>$966,000,000</td>
</tr>
<tr>
<td>Ventilator Associated Pneumonias</td>
<td>0.6%</td>
<td>1,150</td>
<td>$168,000,000</td>
</tr>
<tr>
<td>Post-op Venous Thromboembolisms</td>
<td>0.4%</td>
<td>520</td>
<td>$40,000,000</td>
</tr>
<tr>
<td>All other HACs</td>
<td>10.7%</td>
<td>6,387</td>
<td>$2,397,000,000</td>
</tr>
</tbody>
</table>

Source: Agency for Healthcare Research and Quality
Historically, CMS defined quality as compliance with evidence-based practice guidelines rather than improvement in outcome measures. CMS used evidence-based practice guideline measures as its primary quality barometer, which resulted in little documentation of patient health outcomes, experience and satisfaction. Hospital Compare was created through the public-private collaborative efforts of Medicare and the Hospital Quality Alliance in 2002. The focus of the organization has not changed – it continues to focus on improving the quality of care by providing documented quality information to healthcare consumers so they can make informed decisions. However, during the past 14 years, quality measures evolved to shift from process measures to quality improvement measures.

The Overall Hospital Quality Star Rating became available to consumers in April 2016. Hospital Compare will continue to offer valuable information in addition to the Overall Hospital Quality Star Rating, including digestible charts, real-time patient feedback and price comparisons by procedure. While the sheer amount of data presented on Hospital Compare can be daunting for the average consumer, the Quality Star Rating program will help people understand the aggregated date more easily to make informed decisions.

Despite the advent of a more patient-centric model, where patients are approaching their healthcare decisions with a consumer-oriented mindset, measurement of outcomes that matter to them remains limited. Many of the measurements only begin to differentiate excellent providers from merely competent providers. Identifying and understanding easily digestible data largely remains absent from the lexicon of patient care delivery and management still today, even as patients as consumers merit readily accessible, transparent information on the quality and cost of their care. That said, better, more accessible, more digestible data alone will not provide the full quality picture for a hospital. CMS, and other private and public institutions, will need to continue building on early foundational efforts to establish a standard set of well-defined, outcome-oriented measures that provide an accurate and common profile. This is to drive consistency across payers similar to the recent joint CMS and America’s Health Insurance Plan proposed core set of metrics across seven defined areas (e.g., primary care cardiology, accountable care organization and orthopedics).

Independent Rating Organizations

Driven in part by consumer demand for more information about hospital quality, the business of issuing quality rankings, as with cost and transparency information, has become a growth industry. The number of independent organizations that publish regular quality, safety and transparency ratings has increased rapidly during the past decade. The organizations range from familiar consumer-oriented publications to advocacy corporate entities to quasi-governmental organizations:

- **Consumer Reports** – The popular consumer magazine uses publicly available data for its Hospital Safety Ratings. Hospitals are ranked on a 100-point scale that takes into account information such as readmissions and hospital-acquired infections rates. Publication subscription is required to read individual hospital ratings online. [http://www.consumerreports.org/health/doctors-hospitals/hospital-ratings.htm](http://www.consumerreports.org/health/doctors-hospitals/hospital-ratings.htm)

- **The Leapfrog Group** – The 15-year-old organization began as a group of large U.S. employers that came together to promote the safety, quality and affordability of healthcare. Today, it issues a bi-annual Leapfrog Hospital Survey that uses publicly reported data from various sources to grade hospitals. The group also issues its Hospital Safety Score and has an app for easy lookup by consumers on facility scores (graded A through F). [https://leapfroghospitalsurvey.org](https://leapfroghospitalsurvey.org)

- **Healthgrades** – Healthgrades issues its annual America’s Best 50 and 100 Hospital awards based on an analysis of risk-adjusted mortality and complication rates for common procedures and conditions. Hospitals also are awarded star ratings for clinical quality – 5 stars (better than expected), 3 stars (as expected) and 1 star (worse than expected). [http://www.healthgrades.com/quality/top-hospitals-2015](http://www.healthgrades.com/quality/top-hospitals-2015)

- **The Joint Commission** – The accrediting agency offers quality data for hospitals that it accredits through its Quality Check website, using data that the facilities report to the Joint Commission. It also highlights accredited hospitals that do well on various accountability measures through its Top Performers on Key Quality Measures program. [www.qualitycheck.org](http://www.qualitycheck.org)
• Health Care Cost Institute (HCCI) – HCCI is a non-partisan, non-profit organization with a public-interest mission. Its overarching goal is to provide complete, accurate, unbiased information about healthcare utilization and costs to better understand the U.S. healthcare system. Through research and access to a large health insurance claims database, HCCI seeks to offer answers to critical questions about healthcare spending and utilization for the entire privately insured health population. http://www.healthcostinstitute.org

• Health Care Incentives Improvement Institute (HCI3) – HCI3 (as does Catalyst for Payment Reform) aims to improve healthcare quality and value with evidence-based incentive programs and a fair and powerful model for payment reform. HCI3 is a non-profit organization guided by a Board of Directors that includes physicians, employers, health plans and others. http://www.hci3.org/about_hci3

• Castlight Health – Castlight Health, a consulting organization, works to empower people to make the best choices for their health and help companies make the most of their health benefits. It is comprised of engineers, economists, clinicians and product developers in support of that endeavor. http://www.castlighthealth.com

• U.S. News & World Report – The news magazine issues an annual Best Hospitals list for hospitals that provide complex care, and a High Performing Hospitals list for facilities that offer common (or less complicated) care. The top 15 hospitals on the Best Hospitals list also are named to the publication’s Honor Roll. U.S. News uses publicly reported data and the results of physician surveys to determine scores. It is the only ranking organization that includes “hospital reputation” among the factors that it considers when it compiles its quality reports. http://health.usnews.com/best-hospitals/rankings

A majority of these independent rating organizations are aggregating data and summarizing it for healthcare consumers into digestible reports or transparent applications. Some self-aggregate data through mandatory or voluntary audits or verification efforts. Meanwhile, others draw from the same publicly reported statistics from Hospital Compare to integrate into their reports, while using various weighted methodologies to calculate ratings. Certainly one of the conclusions drawn then is the disparate nature in methodology and approach, which yields different results, in many instances, for the same intended audience. This disparity is despite some commonality in usage of publicly reported information. All to say, these various summaries, more often than not, result in complication and confusion for the patient, further contributing to an already complex delivery model hoping to create a higher quality, lower cost landscape.

The Reporting Challenge

CMS’, as well as other private and public institutions, continuous evolution of quality measures has led to a patchwork of inconsistent metrics, definitions and risk-adjustments used by multiple provider organizations. This continues to compromise the comparability of data between providers, making it truly actionable data for patients, payers and other healthcare stakeholders. For example, readmission rates are not risk-adjusted for hospitals located in different parts of the country serving different socio-economic patient populations. Efforts are underway both legislatively and with various advocacy organizations to overcome this challenge. Said more simply, hospitals that treat a large proportion of low income, disadvantaged patients, who tend to have more complications, are rated exactly the same as hospitals located in affluent areas serving higher-income, more advantaged patients. As a result, estimates suggest that the majority of academic medical centers that serve a largely disadvantaged population, such as UH, are penalized by CMS. For UH, as with many others, this precipitates a significant question of measurement accuracy for the overall quality of care offered at the hospital.

In 2014, the Association of American Medical Colleges issued a list of 25 guiding principles to help evaluate the growing number of organizations that rank quality of care. The principles were organized into three broad categories:

1. Purpose – What is the purpose of the report?
2. Transparency – How are the measures calculated? How should the results be interpreted?
3. Validity – Is the measurement appropriate?
These guiding principles are intended to help avoid persistent contradictory results impacting the level of confusion for the public, providers, governing boards and advocacy organizations, as well as the ongoing detriment to a patient’s ability to make well-informed choices about the quality of care received.

To unlock the potential of the Value Equation, patient and consumer demands necessitate further advancements in the movement to a common set of quality metrics, with transparent cost information. Such metrics should effectively and accurately contemplate socio-economic population data, while encouraging a comprehensive profile of the provider industry. Compressing the timeline for success here requires unified momentum towards a standard set of outcomes for every major medical condition with well-defined methods for collection and risk adjustment.

Final Considerations for Providers and Consumers

With no easy path forward, a battery of organizations focused on these efforts, and an increasingly educated consumer population, the following considerations may be worthwhile in simplifying the overwhelming information available across a dynamic healthcare landscape

**HOSPITALS / HEALTH SYSTEMS / PHYSICIANS**

It is important for healthcare providers to develop a deep understanding of the structure and limitations of the current measurement system and, in the process, consider the following action items to address potential gaps:

- Establish tight working relationships with hospitals, nursing homes and home health agencies to improve discharge coordination and prevent readmissions
- Develop a team-based, multi-disciplinary, multi-specialty approach to treatment based on payment model for specific services
- Incent panels of physicians to collect data and comply with “best practice” protocols for reporting outcome measures and managing chronic conditions
- Establish a governance model that brings key community health players to the table with hospitals to plan and allocate resources to high impact health improvement strategies that influence quality of care and outcomes
- Create a data collection and management system that is systematic, that facilitates risk stratification, and that is designed to guide and inform providers, programs and patients, as well as track progress
- Monitor national collaborations that are working to coordinate, streamline and simplify metrics

**CONSUMERS**

It is important for patients to consider the following questions when reviewing the new publicly available data to make their healthcare decisions:

- Analyze, compare and contrast data from multiple public and private organizations on local healthcare facilities
- Engage the healthcare provider in discussions on health conditions and remedies, recommended caregivers, and documented outcomes
- Learn about local, state and national initiatives related to quality, safety, cost and transparency
- Monitor national legislation and regulation impacting the delivery of patient-centric, high quality affordable care
- Engage in discussion with caregivers at local healthcare facilities to learn more about patient satisfaction, patient outcomes and quality improvements
Conclusion

Informed patients with a consumer-driven mindset, armed with accessible, digestible data on value, should benefit from higher quality, lower cost care for themselves and their families. This growing self-orientation around care will continue placing increased purchaser pressure on the players across healthcare to advance more collaborative and consistent delivery approaches. More prepared providers will use innovative payment models, margin retention/ enhancement opportunities, and other distinctive care-related tools and techniques to translate value across the delivery system. Solving the Value Equation and meeting evolved patient needs will require all of this and more to further advance the movement toward a common set of quality metrics with transparent cost information that effectively and accurately present a comprehensive profile.

Contributing Tenant Partners

- **DHG Healthcare** – A top 10 private healthcare consulting firm ranked by Modern Healthcare, with approximately 300 dedicated healthcare industry professionals across consulting, assurance and tax. DHG Healthcare’s consulting business includes five distinctive service platforms (CFO Advisory, Enterprise Intelligence, Reimbursement, Strategy and Enterprise Solutions) sharply focused on the critical healthcare business issues in today’s transformative environment. More at: [www.dhgllp.com/healthcare](http://www.dhgllp.com/healthcare)

- **University Hospitals** – Founded in May 1866, University Hospitals (UH) serves the needs of patients through an integrated network of 18 hospitals, more than 40 outpatient health centers and primary care physician offices in 15 counties throughout Northeast Ohio. UH is home to some of the most prestigious clinical and research programs in the nation, including cancer, pediatrics, women’s health, orthopedics, neuroscience, cardiology and cardiovascular surgery, digestive health, transplantation and genetics. More at: [www.UHhospitals.org](http://www.UHhospitals.org)