Recording data for performance metrics is a necessary component of any quality improvement project. Many hospitals and healthcare organizations have prioritized collecting data for Physician Quality Reporting System endorsed measures, particularly those utilized in programs created by the Centers for Medicare and Medicaid Services. With this prioritization, many hospitals have found that certain service lines have received less attention. Radiology in particular has seen little focus for many hospitals. Additionally, the radiology measures utilized by many hospitals reflect an elderly patient population; little attention has been placed on quality measures regarding pediatric patients.

One hospital that addressed this quality deficit is Cincinnati Children’s Hospital Medical Center. Cincinnati Children’s is dedicated to quality improvement, and the Radiology Department has developed a quality improvement culture that creates meaningful metrics, utilizes robust data collection, and functions within a formal improvement structure.

Creating Meaningful Performance Metrics for Radiology

The radiology department at Cincinnati Children’s develops their own metric sets, with input from employed medical staff and radiologists. Metrics are developed in accordance with the larger goals of the hospital. “The hospital basically sets their high-level objectives, or areas that they want to focus on. We then use those areas and find specific measures within our department that we think reflect how well we’re doing,” say David Larson, MD, MBA, Chief of Quality Improvement in the department. The focus of hospital improvement can change, but currently quality metrics address patient and employee safety, capacity management, and other important areas.

Identifying the Stages of Healthcare Quality Maturity

In a 2009 issue of Strategy+Business magazine, an article described the stages that a country passed through to become an industrialized nation. The four stages were labeled “survival,” “quality,” “convenience,” and “customization.” Interestingly, these labels can be used to identify the various stages of quality maturity for healthcare organizations. Knowing what stage a provider has attained guides quality program improvements in the future.

Meeting Requirements: Survival

“Survival” aptly describes the beginning stage of quality maturity for many healthcare organizations. Often, the quality goals for organizations in this stage are not particularly quality oriented. Reporting certain legislatively-required performance measures is the main focus. These organizations only wish to survive in the marketplace, gathering and reporting data because they have to. Measured performance is below the national average and high benchmarks seem unattainable.

The quality team in survival stage hospitals also struggles to survive. A majority of their time is spent in data collection, with a large amount of performance data gleaned from paper records and recorded manually. Because so much time is spent collecting information, little time is reserved for designing and implementing quality initiatives. The lack of programs results in almost no financial impact on the organization. This lack of success usually relegates quality teams to a “back-room” position and mentality, with little to no voice in corporate decision making. Additionally, quality is seen as a departmental prerogative, resulting in a deficit of centralized quality authority and no vision for the future.

Changing Focus: Quality

Healthcare organizations that fall into the “quality” stage have shifted the focus of their programs. Minimal quality successes provide the impetus to improve. Goals are quality oriented, and performance measures are improving, with scores falling near the national mean. National benchmarks become more realistic, and the organization strives to improve for financial reasons. Quality teams in this stage are more respected, and improvement goals are shared by many system personnel. Efforts have been made to improve data collection, through clinician involvement and technological upgrades. Collection gains free up time to plan and execute quality initiatives, although programs remain fairly isolated; specialties, clinics and other service lines are not collaborating frequently.
outcomes and clinical excellence, and patient and family experience.

When creating metrics, Larson stresses that Cincinnati Children’s strives to create measures that are meaningful. A good metric should be measurable, objective and reflect the aspect or attribute that is being addressed. “You know what we’re really all about is change, so if you’re doing a measure just to satisfy an external body, if you’re doing a measure just to tell yourself how good you are, or even if you’re doing a measure just to measure, without having in mind what you’re really going to do with it, then it tends to be less successful,” says Larson.

Collecting and Monitoring Data

Most performance data in the department is collected electronically, which makes it easier for the radiologists to assess improvement. The data is collated and presented in an online dashboard, where two department scoreboards can be found. One highlights performance metrics, while the other deals with financial aspects. The scorecards list each metric, the results for the current reporting period and the last two years, and the benchmark for each metric. Additionally, metrics are differentiated by their priority: improvement, sustain (short term), monitor (long term). The priority corresponds with the relative importance of each metric. Improvement status designates metrics whose improvement is a primary focus, while “sustain” and “monitor” denote metrics that are currently achieving the department’s goals.

Because of the relative ease of collecting the data, metrics are not retired. Focus is simply shifted to more relevant metrics or those that need more improvement. “Some measures will kind of move into the background, while others will either take their place or rise in prominence, depending on how well we’re doing and how well we would like to do,” notes Larson. In addition to the listed information, the dashboard also color-codes the results of each metric. Green indicates that the goal for that measure is being met, while red signifies that more improvement is needed. “You’ll see that [metrics] that have been green for a few quarters or a few years are really just in a monitoring status. Then the other ones are things that we just aren’t doing that great on so it’s listed as an improvement,” says Wendy Bankes, Radiology and Clinical Lab Project Manager. “The purpose is not really to make yourself look good on a scorecard.” Both Bankes and Larson stressed that there should be red on a dashboard, as it signifies that the department is accurately assessing itself and striving for improvement.

Utilizing a Formal Improvement Structure to Drive Quality

There are several factors that have made the department successful in their quality improvement endeavors. Perhaps the most important is infrastructure to drive improvement. “[Quality improvement] really requires formal organizational support, meaning resources and people,” says Larson. “I just don’t think a relatively informal group of people would be able to accomplish these sorts of things.”

Both Larson and Bankes also stress that quality programs have to be supported by hospital leadership. At Cincinnati Children’s, hospital leaders express that having red in a scorecard is beneficial, and that being off target is acceptable as long as there is improvement.

Another important factor for quality improvement is hospital culture. “It needs to be unacceptable to start a project and then let it die,” says Larson. “We aren’t used to diving into projects and then neglecting them, or not reaching our goals.” To ensure that programs are brought to fruition, the hospital has daily briefings, while the department will discuss operational priorities and give feedback in frequent meetings. Additionally, the hospital tends to hire internally from their own trainees, helping to ensure that employees all share the same quality improvement priorities. On the rare occasion that a target isn’t met, the situation is usually rectified by pulling someone aside and speaking with him or her. “We really try to avoid using financial incentives or punitive measures. We only use those as last resort kind of things,” say Larson.

A hospital or healthcare organization looking to institute quality improvement in radiology will benefit from the experience of Cincinnati Children’s radiology department. The metrics developed by the hospital might be valuable for a hospital of similar characteristics, but more importantly the priorities that Cincinnati sets when creating metrics and quality programs are significant. Easily accessible data and a hospital culture that stresses quality are valuable to any hospital.
A Brief Glance at the Medicare Shared Savings Program

The healthcare industry’s infrastructure underwent a major realignment as doctors, hospitals, clinics, and other healthcare providers became eligible to join accountable care organizations (ACOs). ACOs, as defined by CMS, “create incentives for health care providers to work together to treat an individual patient across care settings—including doctor’s offices, hospitals, and long-term care facilities.” The incentives for ACO formation stem from the Medicare Shared Savings Program (SSP), a federal initiative which provides monetary reimbursement to ACOs that are progressively increasing quality of delivered care and bending annual cost curves. Due to its relevance, this article briefly overviews the key facets of the Medicare SSP, specifically, attention is paid to SSP eligibility requirements, quality measures used when assessing ACO care, and the incentive structures.

Qualifying for Medicare SSP
CMS cites the following healthcare providers as eligible participants
- ACO professionals (e.g. physicians and hospitals meeting the statutory definition) in group practice arrangements
- Networks of individual practices of ACO professionals
- Joint venture arrangements between hospitals and ACO professionals
- Hospitals employing ACO professionals

Furthermore, ACOs must be providing treatment to a minimum of 5,000 Medicare beneficiaries to be considered for program participation. Additional incentives for ACO formation stem from the Medicare Shared Savings Program (SSP); specifically, attention is paid to SSP eligibility requirements, quality measures used when assessing ACO care, and the incentive structures.

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However, impetus is developing for centralized authority and greater integration. Successful quality improvements are few, but they receive attention from administrators and clinicians and may have a beneficial financial impact.

Improving Initiatives and Processes: Convenience
The “convenience” stage describes organizations that are improving processes initiated in the quality stage. Performance data collection is fully electronic. Quality improvement is entrenched as a system goal, with collaboration across the care continuum. Many initiatives result in above-average improvements in areas receiving focus from national and government entities, providing convenient financial gains. These gains are used to facilitate additional initiatives that are organization specific.

The quality team has morphed into a centralized quality department. Quality leadership is encapsulated in the CQO, who has an important place within the C-suite. Data collection improvements have freed up a majority of the department’s time to focus on creating and implementing quality initiatives. These programs result in significant cost improvements that help solidify gains.

Dictating Focus: Customization
Healthcare entities that reach the “customization” stage of quality maturity are the true innovators. Often, they are larger organizations, such as ACOs and clinically integrated networks. Quality improvement efforts address multiple care focuses, improving quality along the entire patient care pathway. Government programs are less important; focus is customized for the organization’s goals. Consequently, the financial gains that result from quality improvement are almost secondary; the primary goal is constant quality improvement. The organization often selects its own performance measures, and benchmarks are higher than national targets.

The quality leadership of an organization in this final stage has a large voice in administration decisions. The CQO is valued as high as many other C-suite members. Strategy planning is customized to meet the goals of the organization and direct financial impacts are measured. The focus of quality improvement efforts at these organizations often predicts trends at other hospitals. Additionally, healthcare organizations that have reached this stage of quality maturity are progressive with their payment models and are willing to utilize new methods, such as payment bundling or population risk management.

The maturity level of any given healthcare organization doesn’t necessarily have to be relegated to four stages. Determining quality maturity simply assesses the relative development of quality within an organization, providing the self-insight needed to spur further improvement.

<table>
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<tr>
<th>Aspects of Quality Maturity by Stage</th>
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<tbody>
<tr>
<td>Survival Stage</td>
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<tr>
<td>- Few quality-oriented goals</td>
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<tr>
<td>- Reporting performance measure data because it is required</td>
</tr>
<tr>
<td>- Small quality team, little influence</td>
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<tr>
<td>- Manual data collection</td>
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Growth of Accountable Care Organizations in the U.S.
Source: Center for Medicare and Medicaid Services

In the past two years, the number of ACOs has spiked significantly.

Nov. 2011: 160
June 2012: 212

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ACO’s are critiqued on their ability to provide quality care in an efficient manner. To monitor care quality, CMS finalized 33 measures that fall under four quality domains: Care Coordination/Patient Safety, Patient Experience of Care, Preventative Health, and At-Risk Population. CMS will receive quality reports by a multi-faceted collection system including claims submissions, surveys, and electronic data collection tools designed for clinical quality measure reporting. All ACOs approved for the Medicare SSP are required to participate in the program for three years, and the quality standards used to determine incentive reimbursement will change each year.

- **Year 1**: Pay-for-reporting (P4R) applies to all 33 measures.
- **Year 2**: Pay-for-performance (P4P) applies to 25 measures. P4R applies to 8 measures.
- **Year 3**: P4P applies to 32 measures. P4R applies to 1 measure (used to ensure reporting is still functioning properly).

CMS recognizes that ACO governing bodies may require a significant amount of time to affect the way healthcare is delivered within individual systems. This recognition served as the catalyst for installing the three aforementioned phases of quality appraisal. The performance benchmark used for each ACO is derived from the estimated fee-for-service expenditures that a beneficiary would have incurred had the ACO not been established, also known as a minimum savings rate.

**Structuring Incentives**

The Medicare SSP provides eligible participants with the option to enter one of two program tracks. Under both track models, ACOs that yield higher quality and performance scores receive greater portions of shared savings. However, one track is subjected to risk while the other is not. The Missouri Hospital Association defines these two tracks as follows:

- **Track 1** – Shared Savings Only for the Initial Agreement: Under Track 1, an ACO is eligible for an annual shared savings payment based on the difference between Medicare’s actual expenditure for the ACO’s beneficiaries and the ACO’s pre-established benchmark. A Track 1 ACO, however, is not penalized if actual expenditures exceed the benchmark. A Track 1 ACO automatically becomes a Track 2 ACO for the third year of its contract.

- **Track 2** – Shared Savings and Shared Losses for All Years of the Agreement: A Track 2 ACO pays a penalty based on a percentage of expenditures in excess of the benchmark. In exchange for this risk, the ACO receive a higher percentage of shared savings if expenditures are less than the benchmark.

**Gauging the Effects of ACOs and the Medicare SSP**

Physicians and healthcare providers who have undertaken the task of forming ACOs and applying for the Medicare Shared Savings Program have recognized the quietly growing call for healthcare reform. The SSP could present tremendous financial opportunity for ACOs, but the upside has not been witnessed given the program’s relative infancy—SSP was implemented on January 1st, 2012 with the first applicants being notified of their acceptance on April 1st, 2012. Furthermore, economists have speculated that the SSP may prove unsuccessful given the considerable initial investment healthcare providers must provide to establish individual ACO infrastructures. However, if cooperation among healthcare providers can be realized and savings are created, then perhaps SSP will become a popular and successful program. In future research, the Academy will explore the pros and cons of the SSP, as well as alternative payment models.

<table>
<thead>
<tr>
<th>Quality Measures Used in the Shared Savings Program</th>
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<tbody>
<tr>
<td>7 Patient Experience of Care Measures</td>
</tr>
<tr>
<td>33 Quality Measures</td>
</tr>
<tr>
<td>25% Equal Weight</td>
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**Two Models of ACOs**

<table>
<thead>
<tr>
<th>ACO Risk Model</th>
<th>Risk Structure</th>
<th>Intended For</th>
<th>Min. Savings Rate</th>
<th>When Shared Savings Begin</th>
<th>Max. Sharing Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-sided (Max. share: 50%)</td>
<td>None, ACO operates on a shared savings for entire agreement period</td>
<td>ACOs with less experience with risk, limited population management experience, physician-driven organizations</td>
<td>Varies by population (smaller populations smaller MSR, larger populations larger MSR)</td>
<td>First dollar after the minimum savings rate is achieved</td>
<td>Payment capped at 10% of benchmark</td>
</tr>
<tr>
<td>Two-sided (Max. share: 60%)</td>
<td>ACO shares in savings and risk liability for losses beginning in their first performance year, in return for a higher share of any savings it generates</td>
<td>ACOs with more experience with risk and population management, more equipped to repay losses</td>
<td>Flat 2% regardless of size</td>
<td>First dollar after the minimum savings rate is achieved</td>
<td>Payment capped at 15% of benchmark</td>
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