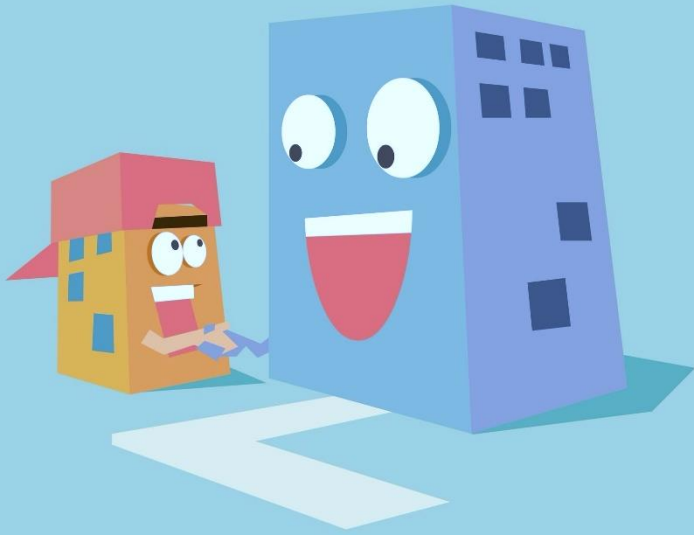


The Post-Acquisition Quality Trap

Avoiding Quality Declines During Hospital Acquisitions | Summer 2017

58%

The number of acquired hospitals with lower post-acquisition quality scores



Hospital M&A Transactions by year

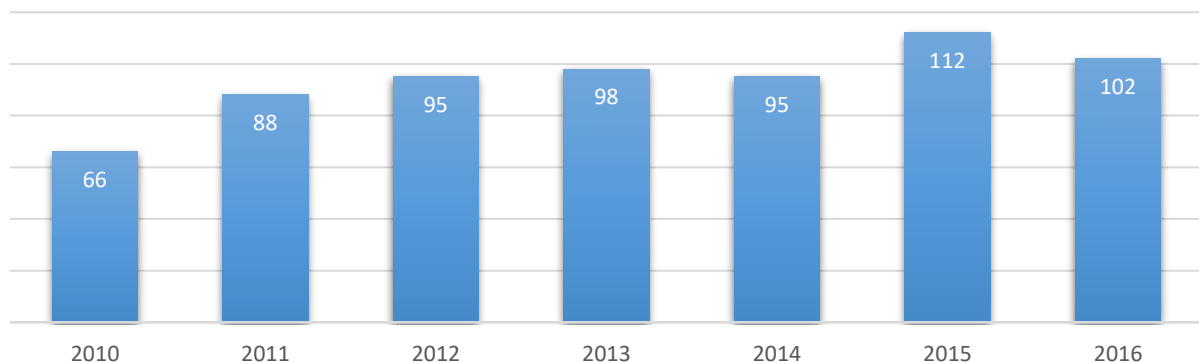


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What happens to the quality of care after a hospital is acquired?

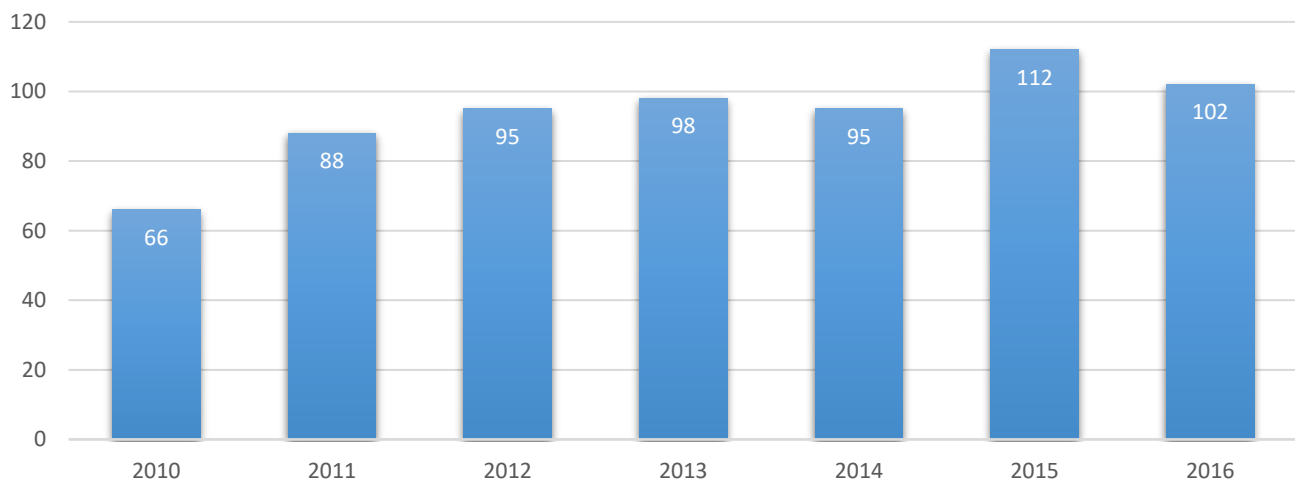
Given the increased number of acquisitions in recent years, we felt this was an important question to ask. To answer this, our firm conducted research on 41 hospital acquisitions taking place between 2014 and 2015 – comparing the quality scores reported through the Hospital Compare database for the years prior to and post-acquisition. Our findings indicate that the quality of care, in the acquired hospital, declines by an average percentile ranking of 5 points during the year immediately following the acquisition.

While the overall quality performance declined, some health systems showed quality improvements. Why do some hospitals see such improvements while others experience decline? To answer this, we analyzed the top and bottom performers, seeking common traits that may provide guidelines for smoother future transitions and less disruption to the quality of care.

94 / Year

The US Hospital market has averaged 94 acquisitions and affiliations per year since passing of the Affordable Care Act in 2010

Hospital M&A Transactions by year



Source: Kaufman, Hall & Associates

The Hospital Consolidation Trend

Consolidation in the hospital segment of the healthcare industry has been steadily on the rise since the Affordable Care Act was put into law in 2010. Since then, there have been over 650 announced hospital merger and acquisition transactions, climbing to a peak of 112 in 2015.

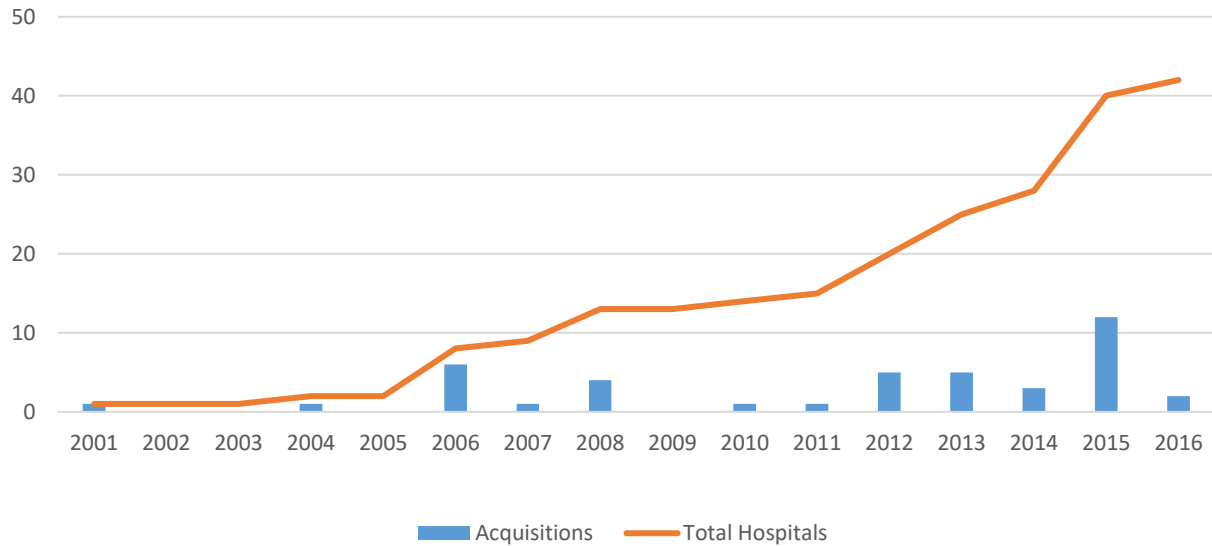
The consolidation spans all hospital types and governance structures. One of the largest sellers of hospitals has been Franklin, TN-based Community Health Systems (NYSE: CYH) who is spinning off 38 hospitals in communities of less than 50,000 residents into a new public company called Quorum Health Corporation. Per CYH, this move will allow the parent company to focus on larger hospitals in urban areas, while Quorum will focus on hospitals in smaller communities.

The acquirers vary from region to region, but usually involve a larger system assuming administrative responsibilities of a smaller hospital, either through acquisition or affiliation. The largest acquirer of hospitals in this study was Ontario, CA-based Prime

Healthcare. Prime has grown through acquisitions, purchasing 42 hospitals since it was established in 2001.

There are many reasons behind the consolidation trend, including the increased need for cost reduction, improved positioning for value-based care business models and health system expansion and growth strategies. The health systems making the acquisitions are looking to provide broader services, financial stability, and the value associated with larger economies of scale; all with the aim of continuing to provide quality care to the communities served by the acquired hospital. In many cases, the acquiring system is bringing much needed infrastructure support, improved contractual agreements with payers and suppliers, and an avenue for the hospital to transition into alternative payment models necessary for value-based care. However, the road to these benefits is paved with many challenges, from increased turnover to transition of IT infrastructure. These challenges create disruption to the care provided by the hospital resulting into a chasm of quality performance at the acquired facilities.

Prime Healthcare Acquisitions



Assessing the Quality Impact

To assess the quality performance changes over time while controlling for policy changes that globally impact hospital performance, we compared each hospital's national percentile ranking. This ranking is provided for all hospitals reporting quality data through the Hospital Value-Based Purchasing program.

The Hospital Value-Based Purchasing (HVBP) program is a structure of Medicare's payment

system designed to reward providers for the quality of care they provide. The program adjusts payments to hospitals under the Inpatient Prospective Payment System (IPPS), based on the quality of care performance. The program uses the hospital quality data reporting infrastructure that was developed for the Hospital Inpatient Quality Reporting (IQR) Program, authorized by Section 501(b) of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

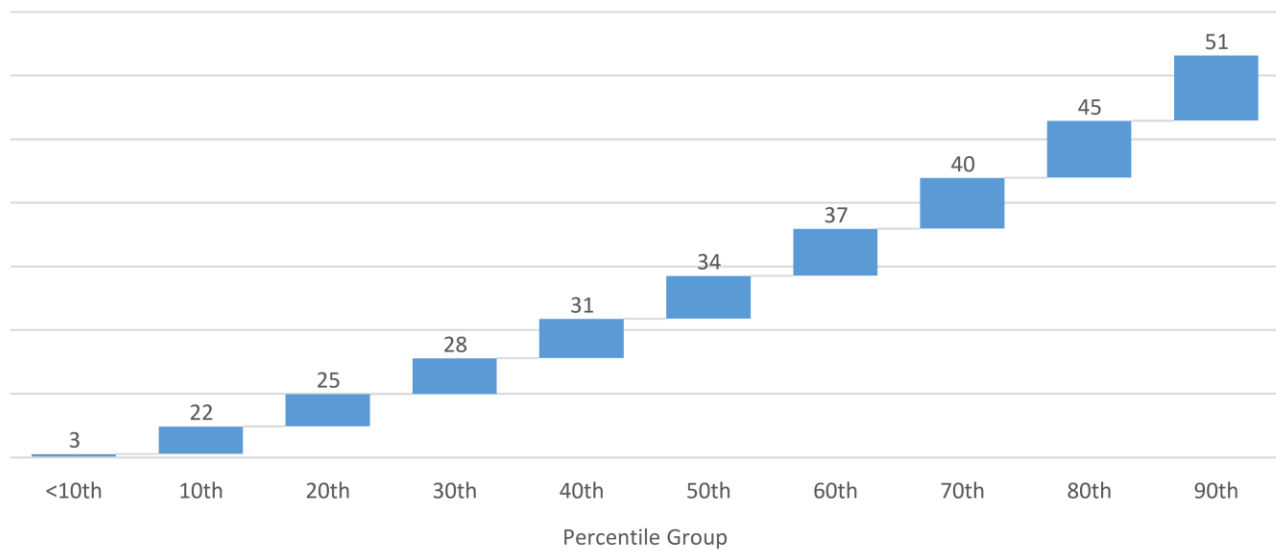
Total Performance Score (TPS)

The TPS is an aggregated score (0-100) based on individual domain scores, with each domain weighted separately. It is used to determine a given hospital's adjustment to DRG payments for an entire fiscal year (see Appendix A for details on the components of TPS).

National Percentile Ranking

To characterize a hospital's TPS, the report calculates a percentile ranking against the scores for all hospitals. The percentile ranking indicates how the hospital performed compared to its peers.

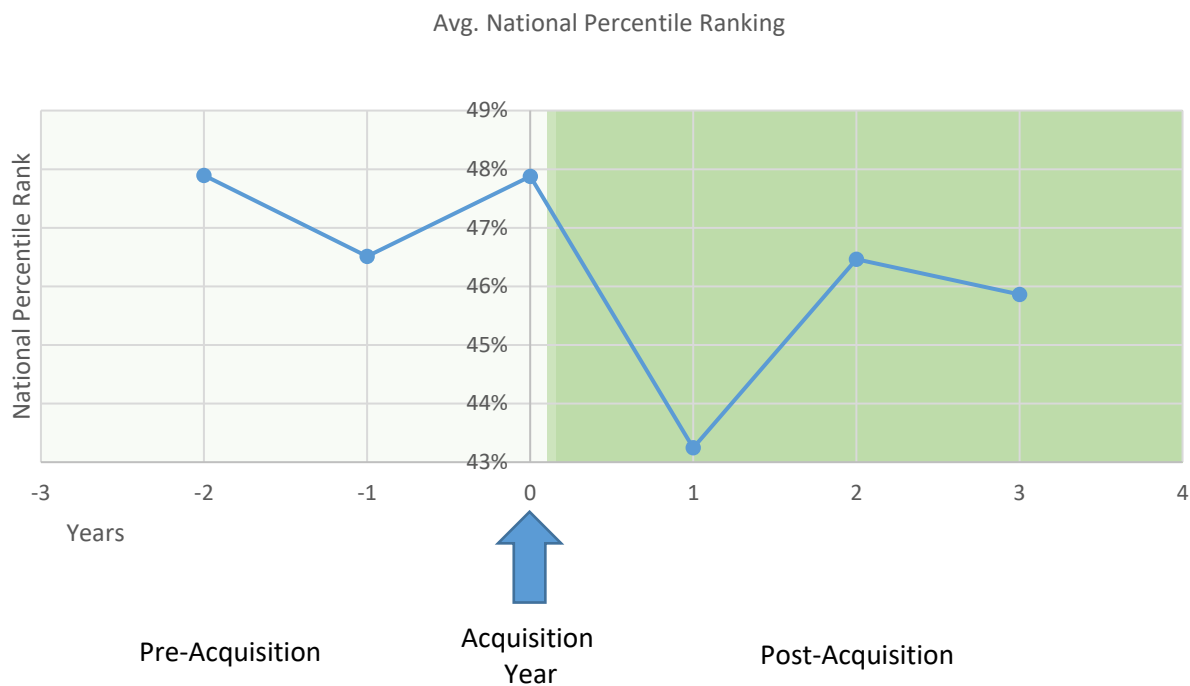
Minimum TPS Scores by Percentile Group



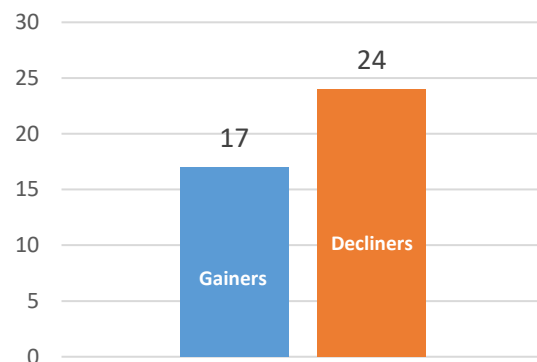
Just under 3,000 hospitals received TPS scores in 2017. Hospitals with a TPS score of 51 or above ranked in the top 90th percentile. Hospitals with a TPS score below 22, ranked in the bottom 10th percentile (see the minimum TPS scores by percentile group for the TPS score required to reach each new bracket). A change in a hospital's percentile ranking indicates a lower relative performance within the domain measures that make up the TPS score, including outcome measures such as 30-day mortality rate for heart failure patients (see appendix A for a list of domain measurements and weights).

The hospitals in this study ranked, on average, in the 48th percentile for the years leading up to the acquisition announcement. The year immediately following the acquisition, this ranking dropped 5 basis

points, to the 43rd percentile. While the 2nd and 3rd years post-acquisition did see recovery in the quality performance, these hospitals have still not returned to their pre-acquisition performance levels.

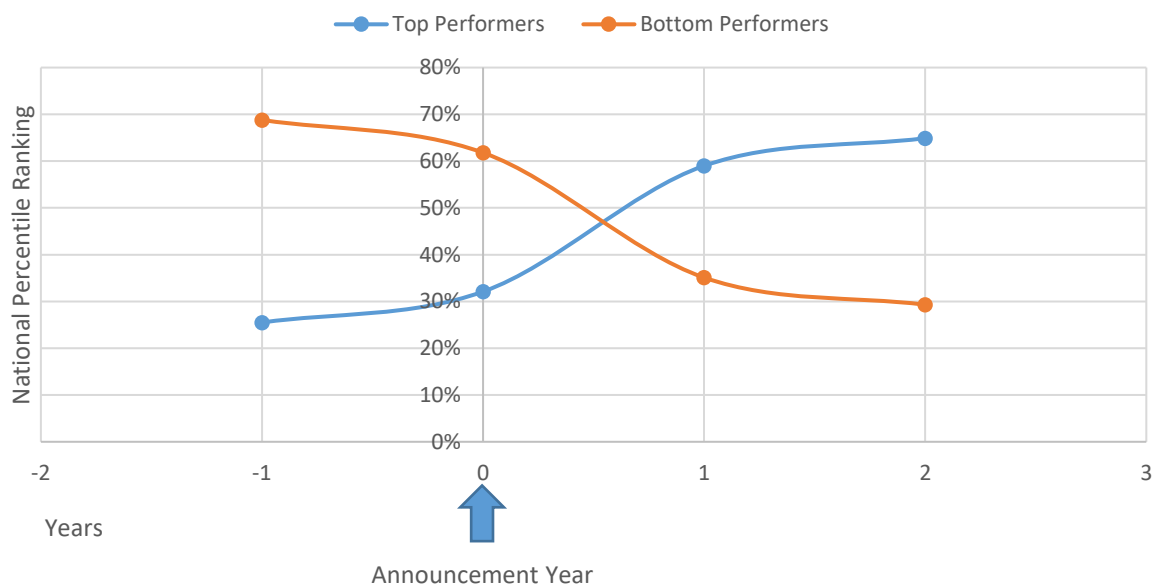


To better understand the individual performance variation, we segmented each hospital across their percentage change in ranking from the year prior to acquisition to the year after acquisition, a three-year total time span. This showed that 24 of the hospitals saw a decline in quality, but 17 hospitals experienced an improvement. This was surprising, as our assumption was that a transition would create disruption uniformly, but what we saw was wide variation across the groups, with some significant gainers and substantial decliners.



Top Performers vs. Bottom Performers

The top performers took hospitals with quality scores in the bottom quartile of the country and improved them to the top 1/3 of the hospitals in the country. These organizations had a median of 95 Medicare certified beds with bed size ranges between 54 and 281. These hospitals were acquired by 9 different organizations spanning 8 states. They had an average starting position in the 26th percentile, during the year prior to the announcement. They then improved to an average ranking in the 65th percentile, a 39-basis point improvement, leapfrogging over 1,000 other hospitals. The best performing hospital jumped from a pre-acquisition ranking in the 15th percentile to a post-acquisition ranking in the 90th percentile, jumping over 2,000 other hospitals.



The bottom performers took hospitals ranked in the top third in the country and reduced them to the bottom third. These organizations had a median bed count of 175 with bed size ranges between 39 and 326. They were acquired by 10 different organizations spanning 10 states. They had an average starting position in the 69th percentile during the year prior to the announcement and dropped to the 29th percentile, a 40-basis point drop in their quality ranking, falling below 1,200 other hospitals. The worst performing hospital dropped from the 67th percentile in the year prior to acquisition down to the 1st percentile 3 years later, a descent of almost 2,000 hospitals. The bottom performers had a median bed

size of almost twice that of the top performers, suggesting that hospital size may be a factor in complicating these transitions.

Guidelines for a Successful Transition

There are many factors impacting quality outcomes, several outside of an organization's control; however, our research has indicated that there are some best practices that can significantly improve the organization's ability to improve the quality of care in the acquired hospital.

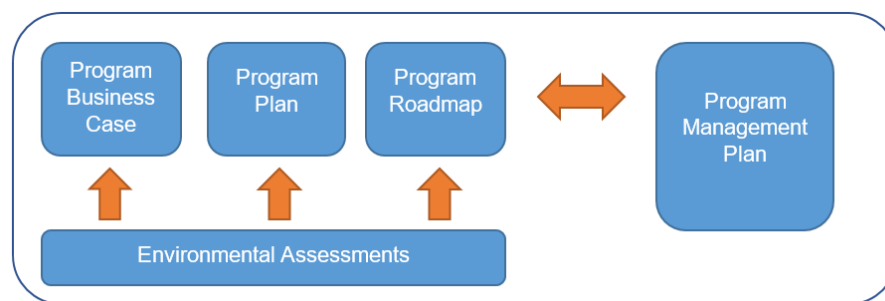
1. Engage the Board Early

In the Winter 2015/16 edition of *Great Boards*, published by The American Hospital Association, Kaufman, Hall & Associates outline a 10-question framework designed help organizations effectively engage the Board early and effectively. This framework aids to establish success criteria, readiness for the partnership and formation of governance structures needed to realize the benefits of the partnership.

- 1 How do we define partnership/integration success?
- 2 How do we assess our organization's readiness for integration and partnership?
- 3 How do we coordinate the partnering/integration process to ensure a high probability of success?
- 4 How do we create a functional integration structure and ensure accountability?
- 5 How do we best communicate the vision and integration progress to key stakeholders inside and outside the organization?
- 6 What transition planning considerations do we need to address?
- 7 How do we address the best interests of our employees?
- 8 How do we navigate reshaping management and governance of the integrated organization?
- 9 How do we measure integration progress and success?
- 10 How will we achieve transformative change through high-performing partnership integration?

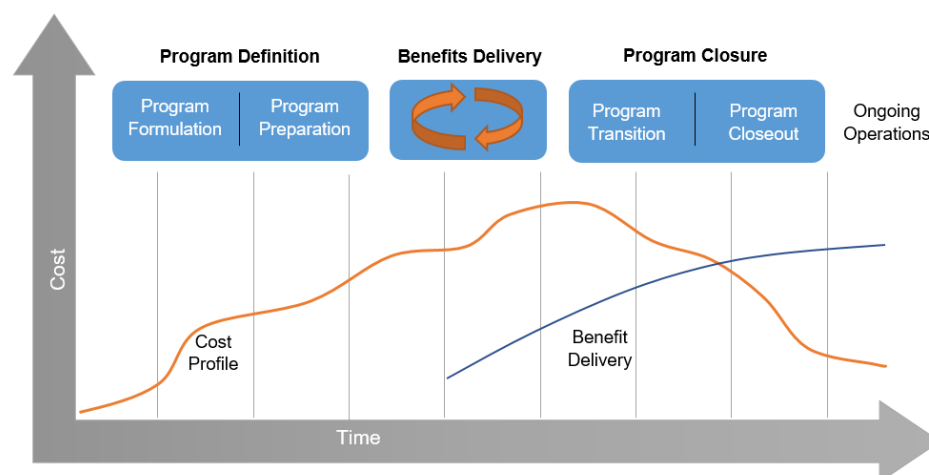
2. Form an Acquisition Focused Program Management Office

The acquisition program will include numerous projects crossing information technology, marketing, human resources and finance. These projects can be more effectively executed as a group and should roll up to a Program, managed under a Program Management Office (PgMO) that is distinct from the hospital's existing Project Management Office. The PgMO oversees the execution of the acquisition integration, with a focus on strategy alignment, benefits management and program governance.



Elements of Program Strategy Alignment

The PgMO should establish a benefit realization plan that aligns the program roadmap with the intended benefits. The diagram below shows a typical cost and benefit profile across the generic program life cycle, illustrating the relationship, in time, across the program phases.



Conclusion

As forces driving consolidation across healthcare persist, the need to integrate hospitals into larger systems will likely continue into the foreseeable future. These transitions create disruption. Disruption to the lives of the care providers, the hospital operations and most importantly the patients who seek care from these organizations. The quality of care delivered during these transitions can be maintained, even improved, during this time of change. Taking a measured approach to the post-acquisition integration can significantly improve the quality of care delivered to patients and should be assessed early and frequently to ensure continuity and safe care to patients.

How organizations approach the post-acquisition integration can play a significant role in determining whether the quality of care improves or declines from the pre-integration state. Organizations should engage their boards early in the process to define the vision, organizational goals and key performance indicators for the specific acquired facility. Executing on this strategy with an acquisition focused Program Management Office will ensure benefit realization and quality performance is managed through the program life-cycle.



Hospital Acquisitions / Affiliations (2014-2015)¹

| Announced | Acquirer | Location | Target | Location |
|------------|---|----------|--|----------|
| 1/2/2014 | Alecto Healthcare Services | CA | Olympia Medical Center | CA |
| 1/8/2014 | Duke LifePoint | NC | Wilson Medical Center | NC |
| 1/29/2014 | Atlantic Health System | NJ | Hackettstown Regional Medical Center | NJ |
| 2/6/2014 | Prime Healthcare Services | CA | Garden City Hospital | MI |
| 4/7/2014 | Virginia Commonwealth University Health System | VA | Community Memorial Healthcenter | VA |
| 4/30/2014 | Mercy Health | MO | Oklahoma State University Medical Center | OK |
| 5/1/2014 | Alameda Health System | CA | Alameda Hospital | CA |
| 5/1/2014 | PinnacleHealth | PA | J.C. Blair Memorial Hospital | PA |
| 5/13/2014 | North Shore-LIJ Health System | NY | Phelps Memorial Hospital Center | NY |
| 7/8/2014 | Tenet Healthcare Corp. | TX | Saint Mary's Hospital | CT |
| 8/5/2014 | EMHS | ME | Maine Coast Memorial Hospital | ME |
| 8/12/2014 | Aurora Health Care | WI | Bay Area Medical Center | WI |
| 9/9/2014 | Billings Clinic RegionalCare Partners joint venture | MT | Community Medical Center | MT |
| 10/2/2014 | Duke LifePoint | NC | Watertown Regional Medical Center | WI |
| 10/13/2014 | Caplla Healthcare | TN | Carolina Pines Regional Medical Center | SC |
| 11/7/2014 | Prime Healthcare Services | CA | Riverview Regional Medical Center | AL |
| 11/7/2014 | Centura Health | CO | Longmont United Hospital | CO |
| 11/11/2014 | Prime Healthcare Services | CA | North Vista Hospital | NV |
| 11/18/2014 | Prime Healthcare Services | CA | Dallas Regional Medical Center | TX |
| 12/8/2014 | North Shore-LIJ Health System | NY | Northern Westchester Hospital | NY |
| 12/11/2014 | Tufts Medical Center | MA | Boston Medical Center | MA |
| 12/22/2014 | Bon Secours Charity Health System | NY | Westchester Medical Center | NY |
| 2/2/2015 | LifePoint Hospitals | TN | Nason Hospital | PA |
| 2/3/2015 | North Shore-LIJ Health System | NY | Maimonides Medical Center | NY |
| 2/23/2015 | Community Hospital Corporation | TX | Jellico Community Hospital | TN |
| 3/27/2015 | North Shore-LIJ Health System | NY | Peconic Bay Medical Center | NY |
| 3/30/2015 | SCL Health | CO | Platte Valley Medical Center | CO |
| 4/27/2015 | Ochsner Health System | LA | Lafayette General Medical Center | LA |
| 5/19/2015 | Mercy Medical Center - Des Moines | IA | Skiff Medical Center | IA |
| 6/1/2015 | Saint Louis University | MO | Saint Louis University Hospital | MO |
| 6/2/2015 | Adventist Health and Loma Linda University Medical Center | CA | San Geronio Memorial Hospital | CA |
| 7/9/2015 | Stony Brook University Hospital | NY | Eastern Long Island Hospital | NY |
| 7/31/2015 | Banner Health | AZ | Payson Regional Medical Center | AZ |
| 8/3/2015 | Regional Health Network of Kentucky and Southern Indiana | KY | Clark Memorial Hospital | IN |
| 8/3/2015 | LifePoint Health | TN | Fleming County Hospital | KY |
| 8/14/2015 | Wellmont Health System | TN | Takoma Regional Hospital | TN |
| 9/1/2015 | Cedars-Sinai Health System | CA | Marina del Rey Hospital | CA |
| 9/21/2015 | Prime Healthcare Services | CA | Lehigh Regional Medical Center | FL |
| 10/5/2015 | Community Memorial Hospital | IL | Anderson Hospital | IL |
| 10/16/2015 | Baycare Health System | FL | Bartow Regional Medical Center | FL |
| 12/1/2015 | Prime Healthcare Foundation | CA | The Memorial Hospital of Salem County | NJ |

¹ Retrieved from Modern Healthcare's Mergers and Acquisitions database which lists all deals announced each quarter in four different healthcare industry sectors — insurers, pharma and biotech, providers, and vendors.

Total Performance Score Components²

In 2017, the Total Performance Score is derived from 4 domains:

- 1) Clinical care domain, which includes:
 - a. **Process Measures** = 5% of a hospital's TPS
 - i. Heart attack patients given fibrinolytic medication within 30 minutes of arrival
 - ii. Patients assessed and given influenza vaccination
 - iii. Percent of mothers whose deliveries were scheduled too early (1-2 weeks early), when a scheduled delivery was not medically necessary
 - b. **Outcome Measures** = 25% of a hospital's TPS
 - i. Acute myocardial infarction (AMI) 30-day mortality rate
 - ii. Heart failure (HF) 30-day mortality rate
 - iii. Pneumonia (PN) 30-day mortality rate
- 2) Patient and caregiver centered experience of care/care coordination domain. This is composed of 8 dimensions derived from the HCAHPS Survey and accounts for 25% of a hospital's TPS.
 - a. **Communication with nurses** - Shown as percentage of patients who reported that their nurses "Always" communicated well. This means nurses explained things clearly, listened carefully, and treated the patient with courtesy and respect.
 - b. **Communication with doctors** - Shown as percentage of patients who reported that their doctors "Always" communicated well. This means doctors explained things clearly, listened carefully, and treated the patient with courtesy and respect.
 - c. **Responsiveness of hospital staff** - Shown as percentage of patients who reported that hospital staff were "Always" responsive to their needs. This means the patient was helped quickly when he or she used the call button or needed help in getting to the bathroom or using a bedpan.
 - d. **Pain management** - Shown as percentage of patients who reported that their pain was "Always" well controlled. This means the patient's pain was well controlled and hospital staff did everything they could to help.
 - e. **Cleanliness and quietness of hospital environment** - Shown as percentage of patients who reported that the hospital environment was "Always" clean and quiet. This means the patient's hospital room and bathroom were kept clean and the area around the patient's room was quiet at night.
 - f. **Communication about medicines** - Shown as percentage of patients who reported that staff "Always" explained about medicines. This means the staff told the patient what the medicine was for and what side effects it might have before they gave it to the patient.
 - g. **Discharge information** - Shown as percentage of patients who reported they were given information about what to do during their recovery at home. This means the hospital

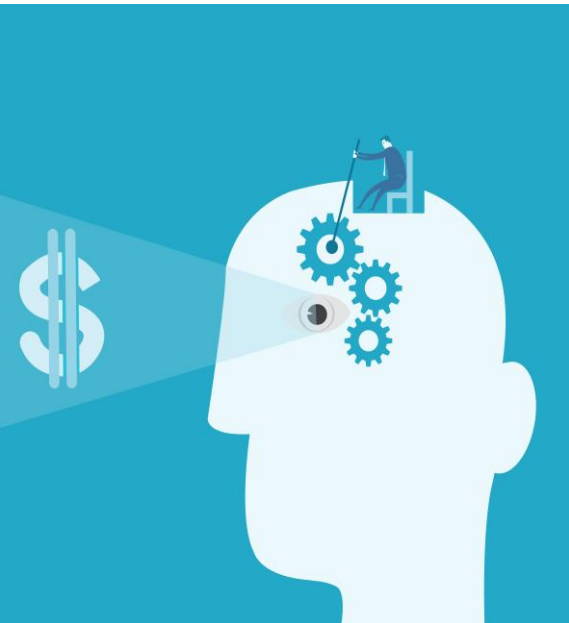
² Excerpt from <https://www.medicare.gov/hospitalcompare/data/total-performance-scores.html>

staff discussed the help the patient would need at home and the patient was given written information about symptoms or health problems to watch for during recovery

- h. **Overall rating of hospital** - Shown as percentage of patients whose overall rating of the hospital was '9' or '10' on a scale from 0 (low) to 10 (high).
- 3) **Safety domain.** This contains 1 AHRQ Patient Safety Measure and 5 healthcare associated infections measures and accounts for 20% of a hospital's TPS
- a. **AHRQ (PSI-90) patient safety for selected indicators (composite)** - The AHRQ PSI-90 is a composite of 8 underlying component indicators.
 - b. **Central line-associated bloodstream infection (CLABSI)** - The CLABSI measure compares the actual number of CLABSIs with the predicted number of infections based on the baseline U.S. experience.
 - c. **Catheter-associated urinary tract infection (CAUTI)** - The CAUTI measure compares the actual number of CAUTIs with the predicted number of infections based on the baseline U.S. experience.
 - d. **Surgical site infection (SSI)** - The SSI measure compares the actual number of SSIs from abdominal hysterectomies or colon surgeries with the predicted number of infections based on the baseline U.S. experience.
 - e. **Methicillin-resistant Staphylococcus Aureus (MRSA)** - The MRSA measure compares the actual number of MRSA blood laboratory-identified events with the predicted number of infections based on the baseline U.S. experience.
 - f. **Clostridium difficile Infection (CDI)** - The CDI measure compares the actual number of CDI laboratory-identified events with the predicted number of infections based on the baseline U.S. experience.
- 4) **Efficiency and cost reduction domain.** This includes 1 Medicare Spending per Beneficiary measure and accounts for 25% of a hospital's TPS.

Medicare spending per beneficiary (MSPB-1) measure - This measure of efficiency is based on an assessment of payment for services provided to a beneficiary during a spending-per-beneficiary episode that spans from 3 days prior to an inpatient hospital admission through 30 days after discharge. The payments included in this measure are standardized and adjusted so that variation in geographic costs are removed, as well as variation in patient health status.

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