SAFETY IN NUMBERS

Exclusive study: Impact of system membership on hospitals’ clinical and financial performance

TRUVERN HEALTH ANALYTICS

100 TOP HOSPITALS

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A
cquisition activity has reached a fever pitch, motivated in large part by healthcare reform and economic uncertainty. But what has long been a clear business case for consolidation may also be among best practices for clinical outcomes.

Squeezed by declining volumes and shrinking reimbursement, hospitals are finding it harder to go it alone. And new research from Truven Health Analytics has found that the impact of being an independent hospital is felt not only on the balance sheet, but also at the bedside.

Hospitals that are part of systems not only provide more cost-efficient care, but they also deliver a higher quality of care, according to the Truven analysis, which used data from its 100 Top Hospitals and 15 Top Health Systems studies.

Its research found that hospitals that were part of larger chains outperformed their independent peers on safety, quality and cost-effectiveness measures. In addition, hospitals that were part of systems were about three times more likely to appear on the 100 Top Hospitals list.

“While the formation of health systems was primarily for economic reasons, historically, we are finding that being part of a system is actually driving higher quality in today’s world, as of 2010,” says Jean Chenoweth, senior vice president of performance improvement and 100 Top Hospitals programs at Truven. “And that bodes very, very well.”

Previous studies have not been able to show that systems lower the cost of delivering care or improve patient outcomes. But systems have continued to
get bigger, seeking out opportunities to acquire acute-care hospitals and other facilities. Many independent hospitals, meanwhile, have sought to leverage partnerships.

The Patient Protection and Affordable Care Act in particular has encouraged collaboration among different parts of the healthcare system, Chenoweth says, particularly the push to form accountable care organizations or ACO-like programs.

In addition, healthcare reform has put the spotlight on improving the quality of care as well as lowering the cost of care.

“I think the systems offer many of the original benefits that systems always offered,” Chenoweth says, citing access to capital and economies of scale. But with the goals of healthcare reform requiring greater collaboration among different types of providers, “these systems are providing a continuum of care.”

And that means individual medical centers no longer have to be all things to all patients.

“What a smaller hospital gains from being part of a larger system is access to protocols, access to expertise,” Chenoweth says. She adds that, rather than invest in every latest piece of technology or try to add every service line, they can take advantage of telemedicine or the ability to transfer patients to another facility.

That’s how it works at Baystate Health, a three-hospital system in Springfield, Mass., which also includes a children’s hospital, large physician practice, visiting nurse association and hospice. The system has also built an academic affiliation with Tufts University School of Medicine and serves as the largest teaching site for the institution.

Dr. Evan Benjamin, the system’s senior vice president and chief quality officer, notes that its two smaller community hospitals—90-bed Baystate Franklin Medical Center and 31-bed Baystate Mary Lane Hospital—can draw on the resources of the flagship 659-bed Baystate Medical Center to provide tertiary care.

“That’s really the goal for us—to be a regional integrated delivery system,” Benjamin says. “The idea is to work together.”

The Truven study, Hospital System Membership and Performance, looked at performance measures for 2,791 short-term, general, non-federal hospitals. Of that group, 1,628 hospitals were identified as members of a larger system, and 1,163 hospitals as independent.

Hospitals were further classified into three subgroups: major teaching hospitals; teaching hospitals; and large, medium and small community hospitals. David Foster, lead scientist at Truven’s Center for Healthcare Analytics, notes that the subgroups helped control for differences in patient mix, such as the more complicated cases that tend to be treated at academic medical centers.

The study used data from the CMS’ Hospital Compare, MedPAR and Medicare cost reports to calculate performance on 30-day readmission rates, severity-adjusted average lengths of stay, adjusted inpatient expense per discharge, adjusted operating profit margin and patient perception of care.

The data covered a period from 2005 to 2010 and was used to analyze current performance as well as five-year performance improvement.

A composite score was used to identify the best performing hospitals, and a percentile rank was assigned to each facility. And the results found that hospital system members averaged a score in the 54th percentile, compared with the 45th percentile for independent hospitals.

The results were closer when Truven analyzed five-year improvement—52nd percentile versus 48th—but system members still had the edge over independent facilities.

As a result, hospitals had nearly a three-fold higher likelihood of earning a spot on Truven’s 100 Top Hospitals list if they were part of a system, Foster says. A total of 1.63% of independent hospitals made the list compared with 4.73% of hospital system members.

Chenoweth notes that the results were “really highly significant” with

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**TRUVEN HEALTH ANALYTICS’ 100 TOP HOSPITALS: TOP HEALTH SYSTEMS**

*Listed in alphabetical order*

**Top Health Systems in the medium category**

<table>
<thead>
<tr>
<th>MEDIUM HEALTH SYSTEMS</th>
<th>Location</th>
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<tbody>
<tr>
<td>Baystate Health</td>
<td>Springfield, Mass.</td>
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<tr>
<td>Geisinger Health System</td>
<td>Danville, Pa.</td>
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<tr>
<td>HCA Central and West Texas Division</td>
<td>Austin</td>
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<tr>
<td>Mission Health System</td>
<td>Asheville, N.C.</td>
</tr>
<tr>
<td>Prime Healthcare Services</td>
<td>Ontario, Calif.</td>
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<tr>
<td>Franciscan Missionaries of Our Lady Health System</td>
<td>Baton Rouge, La.</td>
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<td>Integris Health</td>
<td>Oklahoma City</td>
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<td>John Muir Health</td>
<td>Walnut Creek, Calif.</td>
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<td>Kettering Health Network</td>
<td>Dayton, Ohio</td>
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<td>Lehigh Valley Health Network</td>
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<tr>
<td>Mercy Health Partners (Southwest Ohio)</td>
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<td>Ministry Health Care</td>
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<td>Spectrum Health</td>
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<tr>
<td>St. Luke’s Health System</td>
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<td>TriHealth</td>
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<tr>
<td>West Penn Allegheny Health System</td>
<td>Pittsburgh</td>
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1 $750 million to $1.5 billion in operating expenses

*Source: Truven Health Analytics*
a p-value less than 0.0001. “The end result was really important because most studies looked at the value of systems based on economics,” she says.

While systems do provide opportunities to lower the cost of care, Chenoweth notes that quality, safety, cost and efficiency must be in balance in order for a hospital to be a top performer. “Those organizations are providing higher value and they’re stable,” she says, adding that many systems are taking it upon themselves to implement quality improvement measures.

Prime Healthcare Services, Ontario, Calif., has been an active acquirer of underperforming hospitals, closing on one deal June 1 with two more in the pipeline. The hospitals on its radar were “struggling financially, operationally—pretty much everything,” says Luis Leon, chief operating officer, who notes that it typically takes about a year to get them up to its standards. “It’s a complete overhaul; it’s overall from A to Z.”

Some of the resources Prime provides to the new hospitals in its system include running training programs for medical staff, building a case management team, establishing a hospitalist program, and installing a medical director to focus on patient care and quality of care. The system has also strengthened the corporate position of performance improvement directors.

“We tend to put emphasis on all those clinical areas that are probably the vehicle to quality and good patient care,” Leon says. “We start from the clinical point of view” and financial benefits follow.

One strategy the system employs is identifying successful practices at one hospital and trying to replicate them across the organization—whether it’s a facility that has a particularly efficient linen department or Desert Valley Hospital, Victorville, Calif., becoming the first Prime hospital to win a 100 Top Hospitals award seven years ago.

After Desert Valley won its place on the list, Leon, who was then its administrator, recalls that an effort was made to use the award criteria to reproduce the results across the system.

“It’s that sort of exchange that helped a facility such as 369-bed Centinela Hospital Medical Center in the underserved community of Inglewood, Calif., earn its spot on the 100 Top Hospitals list, Leon notes. Prime itself, which owns 17 hospitals, has twice been named a Top Health System.

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“We are a hands-on system,” Leon says, adding that hospitals are compared against each other and held to task to raise standards. CEOs also meet regularly to discuss what’s going well and what’s not going well. “For us, the motivation is to be the best.”

At Baystate, which this year was named a 15 Top Health System for the first time, board members set a goal last year of eliminating hospital-acquired infections and getting bloodstream infections down to zero. The system tracked measures that led to those complications and instituted best practices to prevent them, Benjamin notes.

“It essentially starts at a board level and cascades down to the individual level so that everyone is aligned around that goal,” he says.

Health systems, Benjamin notes, have the advantage of being able to tap into a centralized quality department to make improvements across the organization.

“To do quality well, you need an infrastructure,” he says. “From my experience, most health systems take advantage of back room economies of scale to focus not only on financial (measures), but also quality.”

The difference in clinical outcomes between 100 Top Hospitals winners and their peer group is apparent.

In 2005, patients treated at both groups of hospitals had about a 4.3% 30-day risk-adjusted mortality rate. But their performance diverged over the next five years.

“Overall, post-discharge 30-day mortality is going up,” Foster says. But not necessarily at Top Hospitals, which outperformed their peer group every year between 2006 and 2010.

In 2010, the most recent year the study looked at, patients treated at a 100 Top Hospitals facility had about a 4.4% risk adjusted 30-day mortality rate compared with 4.6% for patients treated at a hospital in the comparator group.

Baystate has formalized its focus on patient outcomes in its own Center for Quality of Care, which works closely with its Division for Healthcare Quality. The system established the center in 2008 to conduct research on safety, quality and effectiveness.

Its studies have looked at clinical issues such as getting doctors to wash their hands, improving treatment options for sepsis and inappropriate medication use in surgery patients.

Benjamin notes that the center came to much of the same conclusion in its own work to try to understand why some hospitals improve while others lag behind. “Hospitals that really have robust infrastructure for quality, have leadership for quality, tend to do better,” he says. ☐