

Waging war on inefficiency

As hospitals continue to grapple with rising pay and benefits costs, executives look for new weapons in their fight for productivity

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In 2003, hospitals scored a victory in the battle to contain their single largest expense: labor. Continued improvements in productivity cut the number of workers needed to triage, treat and bill patients to its lowest point since 1980.

So why do hospital executives nationwide still believe there's too much wasted time and money bloating healthcare's payrolls? Because more aggressive efforts to track labor productivity--fueled by mounting labor costs and growing demand for healthcare workers--have found that hefty capital investments or operational reforms have failed to wipe out inefficient spending on wages and benefits, executives say.

It's "money sitting on the table" says Robert Stallone, vice president for laboratories at North Shore-Long Island Jewish Health System. The Great Neck, N.Y., system expects to boost its \$180 million in annual laboratory revenue by \$18 million in just 24 months by analyzing and improving the efficiency of its technicians and pathologists, he says.

Efforts to boost labor productivity have grown increasingly urgent of late, say hospital executives and consultants. "Interest has always been strong, but in the last two years it's been incredibly strong," says Phil Gaughan, an operational improvement expert with consultant Solucient, which declined to provide sales figures for competitive reasons. The push to get more from already-employed nurses, technicians and others is critical in order to tightly manage salaries and benefits, maximize the industry's thin margins and squeeze revenue from capital investments in technology, buildings and operations, executives say.

The incentive to erase excess salaries and benefits is great. Hourly wages for hospitals rose 4.8% last year, compared with 2.1% in all other industries, according to a June article in the journal *Health Affairs*. Rising labor costs made up three-fourths of the higher cost of goods and services hospitals reported in 2003; rising expenses for goods and services accounted for roughly half, or 52%, of that year's spike in hospital spending, according to the American Hospital Association (Aug. 29, p. 8). Meanwhile, nurses--healthcare's largest profession--saw the biggest two-year increase in wages since 1983 in 2002 and 2003, as employers scrambled to lure those sought-after workers, according to a study published in November 2004 in *Health Affairs*.

By comparison, hospitals reported uneven gains in productivity in 2003, the most recent year for which figures are available. The total number of full-time-equivalent employees per 100 hospital admissions--which includes inpatient and outpatient care--fell to 7.1 from 7.2 between 2003 and 2002, according to the AHA.

Meanwhile the number of full-time registered nurses per 100 hospital admissions rose slightly for the first time since 1992 to 1.77 in 2003, from 1.74 each of the two previous years. The slight shifts in 2003 are similar to hospitals' incremental productivity gains since the mid-1990s, according to efficiency data collected by the AHA that measure the ratio of labor to both outpatients and inpatients.

A third measure--full-time-equivalent employees per adjusted average daily census--saw productivity steadily decrease until it hit 4.7 workers from 1996 to 1998, and then leveled off to 4.6, where it has remained flat ever since as care moved from inpatient to outpatient settings. Investor-owned hospitals have fared better at reducing staff than private not-for-profit and public

hospitals, which reported 4.1, 4.7 and 4.3 workers per adjusted inpatient day in 2004, respectively.

Experts caution that such an emphasis on heightened efficiency carries significant risks in a labor-intensive industry already under scrutiny over cost and quality issues.

Healthcare's growing focus on labor productivity grew out of the industry's push to prevent medical errors, says Carolyn Pexton, communications director for GE Healthcare's consulting arm, Performance Solutions, which sold its database of productivity targets to Solucient in 2000, but continues to advise hospitals on improving operations, including labor.

The landmark 1999 Institute of Medicine report on patient safety shattered any illusions that hospitals operated efficiently, she says. No longer could hospital executives dismiss dangerous and costly dysfunction as someone else's problem. "Even the best (organizations) have problems with quality and safety," she says. Hospitals that once slashed payroll to manage labor costs must now consider how such short-term savings can harm patients and undermine operations in the long term, she says. "It's not a people issue, it's a system issue."

Little by little

North Shore spent a decade investing in laboratory technology, software and operations in an attempt to wipe out waste and boost efficiency, Stallone says. Today, tissue and blood samples flow to the health system's core laboratory, which churns through 4 million tests per year while 11 of the system's 13 hospitals handle the quick turnaround of simpler tests, such as general hematology and urinalysis, he says.

Still, a yearlong analysis of laboratory productivity across the system found varying productivity levels despite use of identical equipment and software, which eliminated the chance that one lab performed well because of more sophisticated technology.

With all community hospitals using the same equipment to run an identical, limited menu of tests, "You would think everything would pretty much standardize themselves," including productivity, he says. Not so.

If North Shore successfully eliminates slack uncovered in the analysis, Stallone says he believes North Shore can boost its laboratory revenue by 10% in two years with "very little additional labor expense."

For example, North Shore's hospital labs have just enough work to keep technicians and pathologists busy, but not enough to be operating at full capacity, he says. By shifting roughly 2,000 tests each day from its core lab back to community hospitals, North Shore should be able to boost productivity in its small labs and free capacity at its larger lab to perform work outsourced from other providers, Stallone says. Such a shift could boost North Shore's laboratory volume by 15% without affecting its payroll, accuracy or turnaround time, he says. "We'll add a little bit more and a little bit more and a little bit more and we'll watch," he says.

And pooling North Shore's pathologists could help the health system handle 3,000 to 5,000 additional biopsies each year without additional labor costs, he adds; each biopsy pulls in \$100 in revenue, he says.

In early 2005, the health system, which reported \$29.2 million in net income on \$3.7 billion in revenue last year, launched similar productivity efforts in pharmacy, radiology and inpatient nursing. Overall, North Shore expects to improve labor costs per adjusted patient discharge by

5% during each of the next two years, says Robert Dubicki, deputy executive director for North Shore's hospital operations.

New York's consolidating insurance market prompted the system to target its productivity, he says. Recent wins at the negotiating table that boosted North Shore's payments from insurers won't last as consolidated payers gain clout, he says. But a competitive labor market and the national shortage of RNs, pharmacists and other skilled healthcare workers will force wages and benefits--North Shore's largest expense--to rise, Dubicki says.

To start addressing the issue, North Shore spent almost a year sifting through data from payroll, laboratory and pharmacy volumes as well as patient discharges to create productivity measures, such as hours worked per laboratory test or patient discharged. Data collection and analysis took about a year for radiology, pharmacy and the laboratory. North Shore's 13 hospitals won't begin reporting nursing data until January, he says. The system employs 7,200 registered nurses and has a vacancy rate of 3.5%.

Though executives believed each hospital was operating efficiently, the data indicated otherwise. Some differences proved bigger than expected. "I was pleased to see the opportunity and it was greater than I thought it would be," Stallone says of the differences from one laboratory to the next. North Shore responded by setting "aggressive" financial targets, Dubicki says.

Pressure to perform

Quality issues alone didn't drive the recent surge in productivity improvement, hospital executives and consultants say. Pressure to control spiraling healthcare inflation contributed as well. Medical costs "simply rise faster than what people are willing to pay," says turnaround consultant David Speltz, managing director for Huron Consulting. Demand for skilled labor and capital-intensive technology will only increase as baby boomers retire and hospitals struggle to widely adopt information technology or replace aging buildings, he says. "What are we going to do when we are short hundreds of thousands of nurses?"

Shortages of nurses, pharmacists and other critical workers mean increasing pressure to compete for employees with wages, benefits and bonuses. Hospitals reported vacancy rates of 8.1% for registered nurses, 7.4% for pharmacists and 5% for laboratory technicians in December 2004, according to a February 2005 survey of 700 hospitals by the AHA. And recruiting high-demand professionals got harder last year. Some 40% of hospitals say finding an RN grew more difficult in 2004 compared with 2003, and 38% say the same for recruiting pharmacists, AHA survey data show. Other critical positions also proved harder to fill: imaging and laboratory technicians, bill coders and licensed practical nurses.

Older nurses

Strong wages and a soft economy helped lure nurses into hospitals in recent years, a 2004 study published in *Health Affairs* shows. But two trends troubling to employers emerged in the data to suggest the boon may be short-lived and costly. Though hospitals benefited most from the largest two-year growth in nursing employment, roughly 60% of nurses who entered the workforce in 2002 and 2003 were ages 50 to 64--older workers closer to retirement. And the gains came at a cost: back-to-back wage increases after a decade of no growth in real earnings.

Not only do too few workers drive up wages and overtime but a short staff can eat into revenue, according to the AHA. Lack of needed staff forced hospitals to divert emergency patients, cancel surgeries, curb services and admissions, and scale back capital investments, according to the trade group's survey.

"Health professionals are at a premium," says Jeff Prescott, spokesman for HCA, the nation's largest for-profit hospital chain. "You have to be a competitive employer." HCA reported salaries and benefits as a percentage of its revenue dropped to 39.6% in the third quarter of 2004 from 40.6% for the same period a year earlier. Prescott credits the decline to the system's emphasis on efficiency in each of its 180 hospitals. The system's hospitals use daily productivity data to adjust staff levels to volume, fine-tuning that Prescott says requires both art and science to balance cost and quality. HCA relies on its subsidiary, All About Staffing, to provide temporary nurses without the markup of a middleman.

Contract labor, such as temporary nurses, and overtime bloat hospitals' labor costs, Speltz says. Inefficient scheduling or operations contribute significantly to hospitals' distress, though less so than a decade ago, he says.

Increasingly, hospitals have focused on managing disruptive spikes and dives in patient admissions that can leave units stretched dangerously thin or overstaffed. At the same time, they're designing and honing specific productivity targets.

At seven-hospital Mountain States Health Alliance, Johnson City, Tenn., the chief financial and nursing officers hope to further refine productivity data to allow managers to add or cut staffing based not only on patient volume, but the age and experience of its nurses and fluctuations--sometimes hourly--in patients' health on various hospital wards.

"A nurse of 15 years is different than a recent graduate," says Judy Ingala, Mountain State's CFO. Novice nurses need oversight and coaching that veterans don't require. Too often hospitals assign nursing ratios based on a poorly customized formula for how many workers are needed, instead of actual demand.

Emily Wong, director of Fitch Ratings' healthcare group, says many hospitals are focusing on flexible staffing to get a handle on labor costs. The rating agency relies on two measures--labor costs as a percentage of revenue and full-time-equivalent employees per adjusted occupied bed--to track productivity of healthcare borrowers. Wong says Fitch's analyses see potential for "significant savings" in productivity initiatives if they're executed properly.

Trinity Health's St. Alphonsus Regional Medical Center revamped 1,400 overtime contracts after a labor productivity analysis launched in March 2004 found ways the Boise, Idaho, hospital could reduce costs, says Janelle Weeks, whose title with the 355-bed hospital is Six Sigma black belt, the highest certification recognized by the American Society for Quality.

The effort standardized when and which workers get overtime. It also raised the threshold for when registered nurses qualify for overtime after 12-hour shifts. Nurses who work into a 13th hour must finish the full hour to receive additional overtime pay; anything less is paid at the regular rate, Weeks said. Overall, the changes are expected to save the hospital \$1.1 million in fiscal 2005.

The challenge was getting all 173 departments at St. Alphonsus to use identical measures when collecting and analyzing data, says Jeff Warner, the hospital's director of Six Sigma and performance improvement.

To contain labor costs safely, hospitals must "define what you're working on and measure it so you know what you're doing," he says.

Carrie Teaford, director of decision support for Ascension Health's Baptist Hospital, Nashville, echoes Warner's advice. It's crucial to clearly define data early on to prevent confusion and

resistance, she says. That's easier now than in 2000, when steep losses forced Baptist to begin using the first of two labor-efficiency software programs.

The 532-bed hospital hired turnaround giant the Hunter Group, now part of Navigant Consulting, in a bid to ready the hospital for an acquisition or merger. The firm designed a "glorified Access database" to manage productivity, says Teaford, since hospital productivity vendors were few.

Healthcare's complexity and the industry's slow adoption of all information technology meant sophisticated, useful productivity analysis has been slow to emerge in hospitals, she says.

Proponents within Baptist struggled to fine-tune productivity targets and win support from executives and management, she says. Managers' early hostility to productivity software spread to employees and doctors, who blamed the efficiency effort for leaving units understaffed.

"We did have some of that fallout," Teaford says. Working through managers' complaints uncovered data snags that, once corrected, helped overcome resistance, she says. In time, the efficiency effort led to greater flexibility for managers to boost or lower staff as admissions rose and fell.

Efficiency improved further when Baptist switched to popular commercial productivity software after its 2002 acquisition by St. Thomas Health Services, Nashville, a member of Ascension.

"It took a few years," she says. "We've made a lot of progress."

What do you think?

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