Healthcare Benchmarks and Quality Improvement

The Newsletter of Best Practices

THOMSON AMERICAN HEALTH CONSULTANTS

IN THIS ISSUE

OCTOBER 2004
VOL. 11, NO. 10 • (pages 109-120)

Shifts go up for bid: Hospitals see boost in patient care, staff morale

Lower vacancies result; substantial savings seen in personnel costs

A number of hospitals across the country have found they can drastically reduce the cost of staff salaries, while at the same time ensuring full nursing shifts, through shift bidding. This on-line vehicle also has been shown to boost staff morale while improving patient care and satisfaction.

While it varies from facility to facility, shift bidding basically works like an "eBay in reverse." Available shifts are posted on-line, and interested staff can bid for them. A starting hourly salary is listed, and staff can bid a lower wage if they want, to win the shift.

"It has allowed us to communicate staffing needs much more clearly to staff, allowed staff to put in more time if they elect to do so, and to have more control over when they decide to do it," says **Christine McCarthy**, MSRN, nurse recruiter at St. Peter's Hospital in Albany, NY, one of the recognized pioneers of shift bidding. "It also decreases frustration and anger levels, as there is no forced overtime."

"We see it as an enhancement of our ability to staff our units," adds **Anne Davis**, vice president of workforce at Sharp Healthcare in San Diego, which uses an outside vendor called BidShift to conduct its on-line auctions. "We know our nurses pick up extra shifts outside of Sharp, so we've tried to find ways to keep staff within our company. If we have our own staff pick up an extra shift with

Key Points

- Having hospital staff fill all shifts leads to consistency of care, greater quality.
- Nurses can earn much more, while hospital outlays are lower without agency fees.
- Productivity also improves when in-house staff fill positions up for bid.

us, they know our policies and procedures and how to take care of our patients better than anyone; there's a whole lot less room for error."

Kathy Whelchel, RN, vice president of nursing at Spartanburg (SC) Regional Medical Center, sees another benefit. "We found a productivity issue with agency nurses," she asserts. "They are not your employees, and they do just what they need to do to make it work. For the most part, they are not team players."

The whys and hows

St. Peter's started its program in 2002, recalls McCarthy. "Like everyone else, we were looking at high vacancy, loss of staff to agencies, and travel because of perceived convenience and a higher pay rate; and the nursing shortage did not help replace people when they left. So we decided to look at how to keep our own staff here."

One of the hospital executives noted that he bought all kinds of things on-line by looking for the best price. "So we decided to kick that idea around," she notes. "We have a very talented IT [information technology] department, so we had a webmaster and another individual work with nursing administration and human resources." After about a year, the program went live.

They began with their own staff, with managers providing information as to who was qualified for specific units, and then held informational sessions for staff.

"We fiddled around until we got a product that was easy to use on the manager's part, easy to use on the nurse's part, and finally developed a methodology to bring people in from the outside and put them through an orientation that met the same quality indicators as our staff; and they eventually came on staff themselves," McCarthy explains.

This helped to gradually enlarge staff, through newspaper ads and e-mail exchanges.

The St. Peter's system works like this: The manager reviews the schedule, then decides to put shifts on the site to let people know there are openings.

People responding must meet the qualifications necessary to work on that unit (i.e., educational requirements, certifications).

If respondents are qualified, they are allowed to access the calendar. "We give them a salary range, and they put in what they want to make," McCarthy adds.

The negotiation starts between the manager and the nurse. For example, the manager can call and say, "I got your bid, but I also got three lower bids; do you want to stay in the game?"

Spartanburg Regional was another early adapter, after reading about the experience at St. Peter's.

"Our COO and I were in a regular management interview; and he said, 'I wish we could do this to help get the agencies out,'" Whelchel recalls.

"We found out that what St. Peter's was doing was proprietary, so we met with IS [information systems] and personnel, and the guy from IS got real excited," she says.

The programmer stayed up all that night and wrote the entire program for Spartanburg

Healthcare Benchmarks and Quality Improvement (ISSN# 1541-1052) is published monthly by Thomson American Health Consultants, 3525 Piedmont Road N.E., Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid in Atlanta, GA 30304. USPS# 0012-967. POSTMASTER: Send address changes to **Healthcare Benchmarks and Quality Improvement**, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421. Fax: (800) 284-3291. E-mail: customerservice@ahcpub.com. Hours of operation: 8:30-6 Monday-Thursday, 8:30-4:30 Friday, EST.

Subscription rates: U.S.A., one year (12 issues), $539. Outside U.S., add $30 per year, total prepaid in U.S. funds. Discounts are available for multiple subscriptions. For pricing information, call Steve Vance at (404) 262-5511. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. **Back issues**, when available, are $87 each. (GST registration number R128870672.)

Editor: **Steve Lewis**, (770) 442-9805, (steve@wordmaninc.com).
Vice President/Group Publisher: **Brenda Mooney**, (404) 262-5403, (brenda.mooney@thomson.com).
Editorial Group Head: **Coles McKagen**, (404) 262-5420, (coles.mckagen@thomson.com).
Managing Editor: **Russell Underwood**, (404) 262-5521, (russ.underwood@thomson.com).
Senior Production Editor: **Ann Duncan**.

THOMSON
AMERICAN HEALTH CONSULTANTS

Editorial Questions

For questions or comments, call **Steve Lewis** at (770) 442-9805.

Regional. **(St. Peter's now is marketing its program to other facilities. See box, at right.)**

The program is similar to St. Peter's — nurses have to meet basic competencies to bid for a shift. It went live in August 2002 and proceeded very slowly at first. "We sent a letter to every RN's home but only sold 12 shifts in the first three weeks; then, all of a sudden, it was up to 35 a week," Whelchel adds. "Now, we've sold as many as 250 a week."

There is no agency nursing left in the system today, although at one point, the facility was using up to 54 full-time equivalents through agencies.

A newly added module has self-scheduling for the flow pool. Managers post the schedule, and the person goes on-line and fills in when he or she wants to work.

"This has totally changed how we do the flow pool," Whelchel notes. "If a shift is not selected, it goes into auction. We put out six weeks of schedules at a time; so if a shift is not picked, the managers can know four weeks ahead if they need to bid it out."

Additionally, Spartanburg Regional now has a quick-pick module, through which nurses can guarantee they get the shift they want by immediately accepting the stated wage.

At Sharp, not only do nurses bid for shifts, but also nurse assistants, respiratory staff, and physical therapists. Soon radiology staff will participate as well. Otherwise, the BidShift program, which was initiated in September 2002, is similar.

"The nursing units fill schedules as normal, and any open shifts not filled typically go to our large resource pool; those not filled are posted to BidShift," explains **Angela Athis**, director for the staffing resource network.

"Nurses have the ability to log on and view what is available. They see the wage we have posted, and they can take it, but then someone else can come on and take it for less," she says.

New York hospital markets successful job-bidding site

After saving a lot of administrative time and at least $1 million per year in expenses, St. Peter's Hospital in Albany, NY, is marketing its job-bidding web site to other hospitals.

Mercy Miami and Mercy Pittsburgh, and two other members of Catholic Health East (CHE), bought the first copies to improve their filling of vacant shifts for nurses and other key job titles. The buyers received a CD with the program, a manual, and one day of training.

In February 2004, St. Peter's signed an agreement for First Consulting Group (FCG) of Lexington, MA, (www.fcg.com) to market the plan to non-CHE facilities. St. Peter's will receive a fee for each site arranged by FCG. St. Peter's nformation management staff created the site and added it to St. Peter's web site.

For the two weeks ending May 24, 2003, 143 nurses bid for 383 shifts. The average bid accepted was $37.81 per hour, or 40% to 50% above the typical RN rate at St. Peter's. About two-thirds are St. Peter's regular employees who are seeking additional work. In 2002, 43,400 hours were filled by bidding at an average of $37 per hour. Compared to filling those shifts with agency nurses, costing about $54 per hour, St. Peter's saved $980,000.

At the height of the nursing shortage in 2000, St. Peter's Hospital's overall nurse vacancy rate was nearly 11%. Thanks to a comprehensive strategy involving pay and benefits, scheduling, professional development opportunities, and one-on-one recruiting efforts, by early 2003, it was cut to less than 5%. (In recent months, hospitals in eastern New York averaged 11%, according to the Iroquois Healthcare Association.)

[For more information, contact: Richard Chady, APR, St. Peter's Health Care Services, Albany, NY. Phone: (518) 525-1232. E-mail: rchady@stpetershealthcare.org. Web site: www.stpetershealthcare.org.] ■

More money, more flexibility

The health care professionals using shift bidding cite a wide range of benefits, but perhaps the most significant is the boost in staff morale and the ability to make more money while saving the hospital money at the same time.

"There's no mandatory overtime; people make choices," McCarthy points out.

And while the nurses can make more than they would on overtime, "the costs to the hospital are absolutely less than when they used temp nurses," she says.

"There's probably a minimum 20% difference between agency fees and those bid on-line. We do expect the people bidding to make more than they would otherwise," McCarthy notes.

While agency use is way down at St. Peter's, she stresses, "We want to keep good relationships with the agencies."

Nonetheless, it is an advantage to have the

Need More Information?

For more information, contact:

- **Kathy Whelchel**, RN, Vice President, Nursing, Spartanburg Regional Medical Center, 101 E. Wood St., Spartanburg, SC 29303. Phone: (864) 560-6382. E-mail: cwhelche@srhs.com.
- **Christine McCarthy**, MSRN, Nurse Recruiter, St. Peter's Hospital, 315 S. Manning Blvd., Albany, NY Albany, NY 12208. Phone: (518) 525-1108. E-mail: cmccarthy@stpetershealthcare.org.
- **Anne Davis**, Vice President, Workforce, Sharp Healthcare, San Diego. E-mail: anne.davis@sharp.com.
- **Angela Athis**, Director, Staffing Resource Network, Sharp Healthcare, San Diego. E-mail: angela.athis@sharp.com.

open shifts filled by your own staff, she says.

"They are on board with the mission and philosophy and how that is carried out in patient care. Someone from the outside may not know all the resources available to them; and if they feel frustrated, they may show that to patients and family. We have found that patient satisfaction has improved [since the system was implemented]." The vacancy rate also has vastly improved, McCarthy notes.

Athis has had similar experiences. "Before we went live, we conducted focus groups with our RNs," she recalls. "To a person, they all said they preferred not to work with outside agency nurses, because it took time to orient them and then to follow up. We think this has been such a savings of time and has increased the quality of people who come to our unit."

As at St. Peter's, the posted rate on bid shifts is higher than what all the nurses make on an hourly basis (about $10 an hour more), but less than Sharp would pay to outside registries. "I know we have filled close to 3,000 shifts, and they would have gone to outside registries," Athis says.

Whelchel sees similar financial results. "Our average wage for an RN is around $23 an hour, and an agency nurse costs around $50. On shifts bid for, we average around $35 to $37." She adds, however, that bids have gone as low as $27 for the more popular units and shifts.

Again, however, this is not the greatest benefit. "It completely changes how staff feel valued by the system," Whelchel notes. "You give $50 to that agency, and they think you give that to the nurse, who they perceive as not working as hard, and that builds resentment. This takes them out of the equation, and lets our nurses choose when, where, and what to work. They came through for us and covered shifts, and we got the agency out," she says.

As for the hospital, "We are able to cover shifts with people who want to be at work," Whelchel explains. "And in terms of patient satisfaction, that is *huge*. You see it in demeanor at the bedside; if you want to be somewhere, you are happy, and it shows."

In the past, she notes, even though the hospital never had mandatory overtime, "We had to beg, and people were tired."

Vacancies today are way down, she reports. "In 2002, our high might have been 104, and now we are probably at 30 today," Whelchel says. Other departments, she adds, have begged to be included in the program.

Davis sees another major benefit. "I sit on a lot of patient safety committees, and as we have our own staff working here, they will clearly know what those efforts are about, what our resources, policies, and procedures are; and that puts our patients at far less risk.

"It also unburdens the nurses on the unit, because when you have outside registry nurses, a lot of that burden falls on those nurses. So we now have a safer, less stressful environment, and that improves quality all the way around," she adds. ■

Study: Top performers also can be top improvers

Lower baseline doesn't guarantee improvement

In a finding that many would consider counterintuitive, research by Evanston, IL-based Solucient demonstrates that continuous improvement over time is strongly associated with top performance.

"This research refutes the assumption that poorly performing hospitals are most likely to be advantaged when measured by rate and consistency of improvement while very high performers experience difficulty in showing continual high rates of improvement," notes **Jean Chenoweth**, senior vice president of performance improvement and the 100 Top Hospitals programs at Solucient's Center for Healthcare Improvement.

Key Points

- More than one-fourth of the variability on benchmark performance may be accounted for by sustained performance improvement.
- Hospitals were compared over several years using eight different performance measures.
- Most successful performers develop a culture of performance improvement.

"I was delighted to find that link between the two," she adds.

The finding is the result of the latest research conducted about hospitals recognized through one of Solucient's 100 Top Hospitals programs and the 100 Top Hospitals programs at Solucient's Center for Healthcare Improvement.

Data from previous studies of the *100 Top Hospitals: Performance Improvement Leaders* and the *100 Top Hospitals: National Benchmarks for Success* were analyzed to determine the relationship between improvement and performance.

The research found a "robust and statistically significant" link between performance in the *Benchmarks for Success* and the *Performance Improvement Leaders* studies.

Specifically, it found that more than one-quarter of the variability on benchmark performance may be accounted for by sustained performance improvement. There also is a weaker but significant association between rank in the *Performance Improvement Leaders* study and the number of years a hospital has won the national study — that is, the more times a hospital has won the national study, the greater its improvement during the studied time period.

Tracking the trends

"We've been doing the 100 Top Hospitals study since 1993; and a couple of years ago, we tested out a trended database," Chenoweth recalls. "It took a year to build that database and normalize it so we could use the 100 top measures and apply them backward across time." The performance measures used by Solucient are:

- risk-adjusted mortality index;
- risk-adjusted complications index;
- severity-adjusted average length of stay;
- expense per adjusted discharge, case mix- and wage-adjusted;
- profitability (operating profit margin);
- proportion of outpatient revenue;
- productivity (total asset turnover rate);
- coding specificity.

By using six years of data, she explains, hospital executives can ask themselves and their staffs important questions.

"For example, if you have a high complication rate — but three years ago, it was even higher — you'd continue what you were doing. On the other hand, if you show high expenses and the previous year they were low, you need to ask what suddenly changed in terms of your cost of operations vs. those of other hospitals. Did they get better, or did you just get worse?" asks Chenoweth.

A culture of performance improvement

As Solucient started examining the data, it realized that since its measures covered clinical, efficiency, financial, and coding data, "We could tell if the hospital was improving only clinically, but not financially, or vice versa, and thus whether across the organization there was actually a culture of performance improvement [PI]," Chenoweth says. "That goes to the heart of one of our findings — that ranking and performance improvement appeared to be linked together."

Her team didn't believe that initially, she admits. "We thought that if you looked for the most improved hospitals, the best performers would be the big losers, but it wasn't that way at all."

Ultimately, it became clear "the reason hospitals that are already high performers also seem to be able to improve quickly is that they have that culture already built. Across the pattern of the organization they do PI well — they are used to it," Chenoweth says,

For example, if a hospital tries to improve financially but is not working on other areas, its performance graph will look like a zigzag. "You can't just improve in one area," she asserts. "We've just never shown it in data before."

The top performers/improvers also had something else in common: areas in which they are concentrating.

"We did an analysis of where the top 100 best of the best were placing their emphasis. And we found they tended to focus on cardiovascular technologies, adopting new stroke treatment, and new technologies for neurosurgery," Chenoweth notes.

"Think about it: Cardio is a cash cow; stroke is high volume, neurosurgery is one of the few

Need More Information?

For more information, contact:

- **Jean Chenoweth**, Senior Vice President, Performance Improvement, Solucient, 1007 Church St., Suite 700, Evanston, IL 60201. Phone: (800) 366-7526. E-mail: jchenoweth@solucient.com.

growth areas for the future. These hospitals have a sense of what the community is going to need, what makes business sense, and a sense of the growth of their population. They are being *very* selective," Chenoweth adds.

Does improvement have limits?

So, after years and years of improvement, can a hospital come so close to its goals that significant improvement is no longer possible? Chenoweth is not sure.

"I don't think anyone knows, but technology changes so rapidly and readily it would be hard to find a case where no improvement could be generated," she asserts. "Hospitals are very complex and mostly dependent on the behavior of human beings, so tell me — how can there *not* be improvement?"

In any organization, she continues, improvement is always an option.

"You can *always* do something better," insists Chenoweth. "In every single top 100 hospital, I can find areas where they perform poorly — no matter how many times they have won. They do tend to be early adopters [of new PI techniques], but not in everything."

She concludes by pointing out how rare PI success still is. "To give you a sense of how rare it is: Only 25% of all the U.S. hospitals significantly reduced mortality or length of stay over five years," Chenoweth notes. "Only 2% actually reduced expenses; only 4% were able to improve their profitability significantly."

PI is an enormous challenge to the health care industry, she continues, making it that much more important to be able to measure it and to measure the impact of consistently improving, and to show that it actually leads to performing at national levels.

"This is very doable; but you have to use business tools to get there, and you *have* to measure your performance," Chenoweth adds. ■

Study finds much higher rate of annual errors

Research examines three years of Medicare records

According to a new study of 37 million patient records by HealthGrades, a Lakewood, CO-based health care quality company, an average of 195,000 people in the United States died due to potentially preventable, in-hospital medical errors in each of the years 2000, 2001, and 2002.

The *HealthGrades Patient Safety in American Hospitals* study finds nearly double the number of deaths from medical errors found by the 1999 Institute Of Medicine (IOM) report, *To Err is Human,* with an associated cost of more than $6 billion per year.

The discrepancy in numbers should not be the focus of attention, however, insists **Samantha Collier**, MD, HealthGrades' vice president of medical affairs.

"A lot of what IOM did was chart review and input from clinicians and physicians, asking them if there was a mistake or not," she explains.

"Any time you have health care workers pore over charts, there is some bias. That's one possible explanation for the lower numbers in IOM. It's hard to make an apples to apples comparison, but the new thinking is it's 98,000 up to 195,000," Collier adds.

No matter which number you accept, "The magnitude is horrendous. We need to focus on ways to improve our delivery system to make sure patients have safe outcomes when they come to our hospitals," she emphasizes.

Other findings of the report include:

- About 1.14 million patient-safety incidents occurred among the 37 million hospitalizations in the Medicare population during 2000 to 2002.
- Of the total 323,993 deaths among Medicare

Key Points

- Institute of Medicine's use of health care worker's comments about charts may help explain discrepancies.
- Study indicates nearly $3 billion in excess Medicare costs every year.
- Superior hospitals had five deaths per 1,000 less than the hospitals in the bottom 10th percentile.

patients in those years who developed one or more patient-safety incidents, 263,864 or 81% of these deaths were directly attributable to the incidents.

- One in every four Medicare patients who were hospitalized from 2000 to 2002 and experienced a patient-safety incident died.
- The 16 patient-safety incidents accounted for $8.54 billion in excess inpatient costs to the Medicare system over the three years studied. Extrapolated to the entire country, an extra $19 billion was spent and more than 575,000 preventable deaths occurred from 2000 to 2002.
- Patient-safety incidents with the highest rates per 1,000 hospitalizations were failure to rescue, decubitus ulcer, and postoperative sepsis, which accounted for almost 60% of all patient-safety incidents that occurred.
- Overall, the best performing hospitals (hospitals that had the lowest overall patient safety incident rates of all hospitals studied, defined as the top 7.5 % of all hospitals studied) had five fewer deaths per 1,000 hospitalizations compared to the bottom 10th percentile of hospitals. This significant mortality difference is attributable to fewer patient-safety incidents at the best performing hospitals.
- Fewer patient safety incidents in the best performing hospitals resulted in a lower cost of $740,337 per 1,000 hospitalizations as compared to the bottom 10th percentile of hospitals.

The first statistic is one of the key findings of the study, Collier says. "The 1.14 million events just in the Medicare population alone in the three-year study average out to be just over 300,000 a year, which equates to $2.85 billion a year in excess Medicare costs.

"Those are *incidents*; they did not all turn out to cause death. The 195,000 is how many deaths were potentially preventable, which corresponds to IOM's 45,000 to 98,000," she notes.

The second key finding, she says, is that the better hospitals had five deaths per 1,000 less than the hospitals identified in the bottom 10th percentile.

"This also equated to significant cost savings, because [the better hospitals] had fewer incidents," Collier explains.

"There's a quality economic impact, and most people believe these statistics, at minimum, help make the business case for improving," she says.

By extrapolation, if all the Medicare patients who were admitted to the bottom 10th percentile of hospitals from 2000 to 2002 instead were admitted to the best hospitals, approximately 4,000 lives and $580 million would have been saved, Collier notes.

Building on past research

The HealthGrades study applied the mortality and economic impact models that were developed by Chunliu Zhan and Marlene R. Miller in a research study published in the *Journal of the American Medical Association* in October 2003.[1]

That study supported the IOM 1999 report conclusion, which found that medical errors caused up to 98,000 deaths annually and should be considered a national epidemic.

Whereas the IOM study extrapolated national findings based on data from three states, and the Zhan/Miller study looked at 7.5 million patient records from 28 states over one year, HealthGrades looked at three years of Medicare data in all 50 states and Washington, DC.

This Medicare population represented approximately 45% of all hospital admissions (excluding obstetric patients) in the United States from 2000 to 2002.

HealthGrades examined 16 of the 20 patient-safety indicators defined by the Agency for Healthcare Research and Quality (AHRQ), from bedsores to postoperative sepsis, omitting four obstetrics-related incidents not represented in the Medicare data used in the study.

Of these 16, the mortality associated with two, failure to rescue and death in low-risk hospital admissions, accounted for the majority of deaths that were associated with these patient safety incidents.

"If we could focus our efforts on just four key areas — failure to rescue, bed sores, postoperative sepsis, and postoperative pulmonary embolism — and reduce these incidents by just 20%, we could save 39,000 people from dying every year," Collier points out.

Laying the groundwork

Although it would appear at first glance that not much has changed since the IOM report, "the good groundwork of change has begun," she adds.

"We have gotten people over the denial stage and into the acceptance stage, which allows us to advance to the change stage." It takes time to change culture, Collier concedes.

"[However], unlike other health care issues,

Need More Information?

For more information, contact:

- **Samantha Collier**, MD, Vice President, Medical Affairs, HealthGrades, Lakewood, Co. Phone: (303) 716-6548. E-mail: scollier@healthgrades.com. Web site: www.healthgrades.com.

this is one in which every stakeholder has a significant stake. For the first time, we all have a similar agenda, a shared vision."

That shared vision involves running a health care organization like a public company, she concludes. "In other words, you meet certain metrics or you shut down. We have to get out of this box that 'health care is different.'"

Quality managers "must know what their adverse event rates are, whether they use the indicators in our study or others," and get beyond looking at medical errors as only commission and omission, Collier explains.

"You can't change what you don't know," she adds. Once you have your information, "You need to share it with your board and employees. When we start sharing information, that's when we make changes."

Reference

1. Zhan C, Miller MR. Excess length of stay, charges, and mortality attributable to medical injuries during hospitalization. *JAMA* 2003; 290:1,868-1,874. ■

'Most wired' hospitals widen gap over others

Wide range of offerings, emphasis on IT education

In much the same way as top performing hospitals continue to improve at a more rapid pace, so too are the most technologically adept facilities widening the gap between themselves and their competitors, according to the sixth annual Most Wired Survey and Benchmarking Study.

The study is a joint venture of *Hospitals & Health Networks,* the journal of the American Hospital Association, IDX Systems Corp., and the College of Healthcare Information Management Executives. **(See related article, p. 112.)**

The survey asks hospitals to report on their use of information technology (IT) to address five key goals: safety and quality, customer service, business processes, work force, and public health and safety. A total of 482 hospitals and health systems completed the survey, representing 1,298 hospitals contacted.

This year, there were actually four categories recognized:

- 100 Most Wired — The 101 organizations that scored highest on the survey.
- The Most Wireless — The 25 organizations that scored highest on the survey questions focused on wireless applications.
- The Most Improved — The 25 organizations not appearing on the Most Wired list whose score improved the most from 2003 to 2004.
- The Most Wired-Small and Rural — The 25 small and rural organizations not appearing on the Most Wired list that scored highest on the survey.

And what are these top facilities doing differently? According to this year's survey, the nation's "100 Most Wired Hospitals and Health Systems" accomplished the following:

- More than 90% of the most wired conduct either pre- or post-implementation return-on-investment analyses to justify expenditures, compared with only 59% of the least wired. (The least wired are the 100 respondents who scored the lowest on the survey.)
- The most wired have a wide variety of offerings available over the Internet for patient service and customer support, ranging from on-line patient registration to disease-specific self-triage.
- IT education is a priority among the most wired hospitals and health systems. The most wired have physicians and nurses dedicated to IT training and support. The most wired also are beginning to offer continuing medical education credits to participate in technology training.
- The most wired have significantly higher

Key Points

- More than 90% of most wired conduct return-on-investment analyses to justify expenditures.
- Computerized physician order entry is 10 times more likely to be used at most wired organizations than at least wired facilities.
- Information technology education of staff takes high priority at hospitals ranking high in survey.

adoption rates among physicians and nurses across a broad set of clinical activities, such as clinical order entry and results review, compared with the least wired hospitals.

In addition, the survey found that 90% of the most-wired hospitals provide access to current patient medical records on-line; 87% provide on-line access to medical history; 88% provide on-line access to patient demographics; and 69% provide on-line access to nurses' notes.

Furthermore, 90% of the most-wired hospitals provide on-line radiology report reviews; 88% provide on-line lab results; and 84% have on-line radiology image review.

CPOE is widespread

CPOE, or computerized physician order entry, is 10 times more likely to be used at most wired organizations than at least wired facilities.

On average, nearly 27% of medication orders are entered electronically by physicians at most wired organizations, compared with 2.7% at the least wired institutions.

What's more, the least wired also are more likely to have medications that are ordered manually. In fact, 20% of medications at the least wired organizations are ordered manually, compared with an average of 3.1% of medications ordered manually at the most wired.

Furthermore, nearly 35% of the most wired say 81% to 100% of their medications are matched electronically to the patient and order at the time of administration. This compares with only 5% of the least wired, 84% of which do not electronically match any medications to the patient at the time of administration.

Education is emphasized

Training in IT is another strategy that sets the most wired facilities apart. According to the survey, more than 95% of these facilities have a nurse dedicated to IT training, compared with 41% of the least wired.

In addition, more than 60% of the most wired have a physician dedicated to IT training, compared with 3% of the least wired; and 8% of the least wired do not provide any educational resources on IT whatsoever.

Approximately 60% of the most wired offer continuing education credits to pharmacists and IT professionals who participate in technology training. This compares with 6% or less among the least wired. More than 75% of the most wired provide education credits to physicians and nurses; but only 31% of the least wired provide credits for physicians, and 15% provide them for nurses.

Adoption rates at the most wired facilities also are much higher. For example, in terms of routine access to patient medical histories, 72% of most wired organizations say that their physicians have achieved the highest adoption rate measured on the survey: that 81% to 100% of their physicians routinely use IT to access medical histories. This compares with 29% of the least wired organizations responding that their physicians have achieved the highest adoption rate.

Clinical quality a key area

There also is a dramatic difference between the most wired and the least wired in terms of tools for improving clinical quality.

More than half of the most wired (54%) report they have achieved the highest level of adoption for physician use of drug interaction alerts — an 81% to 100% use rate — compared with 16% of the least wired. And 56% of the most wired report they have achieved the highest level of adoption for nurse use of drug interaction alerts, compared with 17% the least wired.

More than 80% of the most wired provide bedside access to drug interaction alerts, compared with only 15% of the least wired. In terms of bedside pharmacy order entry, 79% of the most wired provide this service, compared with 19% of the least wired.

Many of the most wired, and all of the 25 organizations named to this year's Most Wireless list, are providing ubiquitous access throughout their organizations using wireless systems.

Many organizations are beginning their initiatives by providing wireless access in clinical areas of their institutions.

More than 75% of the most wired provide wireless access to clinical information functions such as drug interaction alerts, pharmacy order entry, and lab results review.

Only 13% of the least wired provide wireless access to drug alerts; 14% provide wireless pharmacy order entry; and 24% provide wireless lab results review. Adoption rates among the least wired for wireless access to clinical information are minimal.

(The 2004 Most Wired and Benchmarking Study can be found at: www.hhnmag.com.) ■

NCQA's Quality Plus will highlight web plans

Program to recognize health plan innovators

The Washington, DC-based National Committee for Quality Assurance (NCQA) has released for public comment draft standards for Quality Plus, a new supplemental accreditation program it claims "breaks new ground" in content and intent.

The program is designed to highlight health plans whose innovative approaches to member communication, care management, physician compensation, and other activities are models for the industry.

The voluntary program also seeks to engage newer health plan types such as consumer-directed health plans that represent a growing sector of the health care industry.

"Quality Plus will allow us to better recognize leaders and innovators regardless of plan type," says NCQA president **Margaret E. O'Kane**.

"Recognizing these innovations will speed their adoption so that in the future, we'll *all* be able to do things like track claims on the web, order prescription refills on-line, and get answers to our questions 24-hours a day," she adds.

The initial set of draft standards focus on how well a plan uses technology to provide members with interactive health tools and information about pharmacy benefits, claims, and health improvement. The main categories include:

- health risk appraisals;
- interactive consumer health tools;
- functionality of claims processing;
- using pharmacy benefits;
- personalized information on health plan services;
- innovations in member service.

The new standards will allow NCQA to recognize plans that lead the market in areas such as leveraging the web to promote members' self-management of chronic conditions and allowing members to track claims on-line.

The organization initially began exploring a next-generation accreditation program in late 2003. A group consisting of 18 people representing employers, health plans, physicians, consumers, and the federal government produced comments focusing on three areas:

1. ensuring all organizations meet basic customer service expectations;
2. ensuring all members, regardless of health status, receive appropriate care and support to promote better health;
3. standardizing performance expectations of health plans and providers.

The program was then designed with these goals in mind:

- Set the stage for a new generation of NCQA programs designed with the broad range of current health plan offerings in mind.
- Drive measurement and reporting at the physician and hospital level of the system.
- Enable consumers and employers to make comparisons between different types of plans.

Participation in Quality Plus is voluntary, and plans that meet the standards will be entitled to promote this fact in advertising and marketing materials, on their web sites, and among staff. It is strictly a pass-fail program; NCQA will not publicly report any fails.

The final standards will be released in March 2005. At that time, NCQA also expects to release the next two groups of standards for public comment: Physician and Hospital Quality and Health Improvement. ■

Need More Information?

For more information, contact:

- **National Committee for Quality Assurance**, 2000 L St., N.W., Suite 500, Washington, DC 20036. Phone: (888) 275-7585. Web site: www.ncqa.org.

Tool locates alternative sites during bioterrorism

Initiative draws from integrated network process

Early this summer, several factors brought renewed attention to the possibility of terrorist attacks and appropriate responses on the part of the health care profession.

To help prepare for an effective response for such an event, the Agency for Healthcare Research and Quality (AHRQ) has released a tool to help state and local officials quickly locate alternate health care sites if hospitals are overwhelmed by patients due to a bioterrorism attack or other public

Key Points

- Following a bioterror event, hospitals may be overwhelmed by an influx of patients.
- An Agency for Healthcare Research and Quality tool includes 30 different attributes by which to compare and rank facilities.
- The tool was made available to representatives at Olympics venues in Athens, Greece.

health emergency. The alternate care site selection tool, produced by Denver Health, one of AHRQ's Integrated Delivery System Research Network (IDSRN) partners, was shared with emergency response planners at the 2004 Summer Olympics in Athens, Greece. **(The program links the nation's top researchers with some of the largest health care systems to conduct fast-track research on cutting-edge issues in health care. For more information, see *Healthcare Benchmarks and Quality Improvement,* September 2004, p. 101.)**

In the aftermath of a bioterrorist event or other public health emergency, hospitals may be overwhelmed by a sudden influx of patients, AHRQ explains.

The new alternate care site selection tool is designed to allow regional planners to locate and rank potential alternative sites — stadiums, schools, recreation centers, motels, and other venues — based on whether they have adequate ventilation, plumbing, food supply, and kitchen facilities, for example. It is available free as an Excel spreadsheet on AHRQ's web site: www.ahrq.gov.

The effort to develop the tool began in October 2002, recalls **Stephen Cantrill**, MD, associate director in the department of emergency medicine at Denver Health Medical Center.

"It started with a task order from AHRQ that dealt with regional planning for bioterrorism," he notes. "We brought together partners from all of Federal Region 8 [Colorado, Utah, Wyoming, Montana, North Dakota, and South Dakota]." The team included representatives from state departments of health, medical societies, and all the large hospital groups in the Denver metro area. Federal partners included the Public Health Service; the U.S. Northern Command in Colorado Springs, CO; the Department of Veterans Affairs; and the Federal Emergency Management Agency.

"We built on some of the earlier work that had been done by the command in terms of criteria," Cantrill says.

"We enhanced those, developed a kind of a grading scale to be used to look at facilities to be able, in a gross way, to determine the acceptability of potential alternative care sites — i.e., whether they fulfilled specific needs." The tool includes a list of about 30 different attributes, such as availability of toilet facilities, availability of communication lines, availability of a food service area, and so on.

"Basically, it's a big spreadsheet," he explains. "You go down, put your potential sites on one axis, your needs on another, rate them on a 0-5 scale [5 being the highest], add up your total, and

COMING IN FUTURE MONTHS

- What quality professionals are doing to meet the new patient safety standards
- Revamped scheduling process makes a world of difference in patient satisfaction
- Provider tracking, reminder systems help improve quality of care for minorities
- JCAHO takes a closer look at hospitals' smoking cessation programs for patients

Need More Information?

For more information, contact:

- **Stephen Cantrill**, MD, Denver Health Medical Center. E-mail: scantrill@dhha.org.
- **Agency for Healthcare Research and Quality**, Rockville, MD. Web site: www.ahrq.gov. For information about bioterrorism planning, go to www.ahrq.gov/browse/bioterbr.htm.

see if it makes logical sense."

This process aids in prioritizing different potential sites, to see which would be best to use, Cantrill adds.

"In an ideal situation, you do this as part of your advanced planning," he advises, so you are prepared if traditional health care sites are overwhelmed in a bioterror event.

While much of the data were specific to his region, Cantrill says the new tool demonstrates an approach of assessment of resources in any given region.

"We tried to develop some generalized tools. Naturally, there are variables, like the time of year, the nature of the incident," he points out. "If it's summertime, you may not care if you have heating, but you will want air conditioning. In Northern Montana, you want heating."

Therefore, there is no magic number in terms of a total score for a given alternative site. "What the tool does is give you the ability to do relative scaling," Cantrill adds. ■

NEWS BRIEF

JCAHO establishes standards advisory board

The Joint Commission on Accreditation of Healthcare Organizations has created a Hospital Standards Advisory Group to provide feedback to the Joint Commission on the hospital field's experience with revised standards, rationales, elements of performance, and scoring methodologies.

According to a report in its on-line newsletter, the group also will provide advice on issues that have been identified through feedback as unclear, not relevant to quality and safety, or not essential to the operation of the organization.

The 16-member group includes representatives from hospitals and health systems, VHA, the Phoenix Area Indian Health Service, Premier, and the American Medical Association.

The Hospital Standards Advisory Group planned to convene its first meeting in August and complete its work by 2006. ■