COVER STORY

TRENDS IN HEALTH CARE

How **reform** will reshape the hospital environment

It's been suggested that the federal government essentially drew a road map for health care reform with the Patient Protection and Affordable Care Act (PPACA) and told hospitals and other providers to build the road. At 900-plus pages, the PPACA is like no road map most of us are accustomed to using. If it were, hospital leaders wouldn't be building the road but would still be sifting through the document to comprehend it. And, in fact, that's pretty much what most of them are doing.

But beginning next year, you should begin to see some significant changes related to the bill. You and your team likely will be called upon to aid in meeting the PPACA's directives. At the very least, your hospital's leadership will count on you and your staff to help make your organization operate more efficiently, safely and deliver higher quality at a lower cost. It is also likely that hospital leaders will call for additional documentation and reporting on progress being made.

What else can you expect in this new environment? That's the focus of this year's edition of *Trends in Health Care*. We asked some of the top leaders who design, build and maintain hospitals to share their insights on how PPACA subtexts, on issues like comparative effectiveness and accountable care organizations, may affect your work. In addition, we took a deeper look at how sustainability, the supply chain and infection control and prevention may be impacted by some of the key reform bill initiatives.

As you'll find from these reports, your work likely will tie much more closely to the major goals set for America's health care system. In many cases, these aren't exactly new objectives. Most tend to revolve around the old standbys: Create safer patient care environments. Reduce costs by delivering care more efficiently. Make better use of natural resources and cut regulated and nonregulated waste streams.

If this sounds like the path your organization was already on even before the political fight over reform began, you'll be better prepared for the coming changes. But make no mistake, the landscape of the hospital environment is in for some major changes in the coming years because of this legislation. Regardless of whether the Republican Party makes good on its stated objectives of trying to repeal or derail this legislation, experts believe that the push to reform health care economics and care delivery will continue.

So roll up your sleeves and dig in. It's time to begin building that road, no matter how complicated the set of instructions for completing it.

Bob Kehoe
Associate Publisher

ILLUSTRATIONS BY JAMES TURNER

A NEW ERA

Hospitals brace for safety and efficiency push

BY HARRIS MEYER

At Denver Health, facilities managers and engineers have led the way on many cost-saving projects under the hospital system's lean performance improvement program.

Since 2005, operations staff have slashed average bed turn-around time from 150 minutes to 88. Engineering has saved $550,000 on spare parts and supplies by adopting a bin system and other techniques that reduce hoarding and ensure prompt reorders.

The scrutiny even extends to small items, such as saving unused feeding-tube cans after a patient's discharge. Staff saved the hospital $219,000 over the past year by having asthmatic patients safely share common inhalant canisters.

These are the types of cost-reduction and quality-improvement efforts that will be essential as the far-reaching Patient Protection and Affordable Care Act (PPACA) takes effect in stages over the next several years, say hospital engineers, operations and materials managers, architects and construction managers. And, even if subsequent congressional actions adjust the direction of reform, the momentum for change will not disappear.

To help hospitals succeed under health care reform, experts say managers in these areas increasingly will have to collaborate with senior hospital executives and clinical leaders to make value-based decisions across the hospital environment.

'A wake-up call'

"It's a wake-up call to facilities managers to step out of our traditional role as technical experts and become hospital leaders," says Dale Woodin, CHFM, FASHE, executive director of the American Society for Healthcare Engineering. "This is a huge opportunity for engineers and facilities managers to move beyond technology and construction design to patient care improvement."

The PPACA law includes myriad provisions to expand health coverage, reduce cost growth, improve patient safety and quality of care and expand community-based primary care. Experts say hospital revenues likely will be squeezed, at least until measures to extend coverage to 30-40 million more Americans take effect in 2014. Under the new law, hospitals will be paid less by Medicare if they exceed a certain rate of preventable readmissions within 30 days, and Medicare's payment update factor for hospitals will be reduced. There also are several new initiatives to control costs by bundling payment for episodes of care.

"It puts pressure on the supply chain to fund that loss," says William Stitt, CMRP, FAHRMM, vice president of materials management at Robert Wood Johnson University Hospital in New Jersey and president-elect of the Association for Healthcare Resource & Materials Management. "So now we're working collaboratively with clinicians to make good clinical, operational and financial decisions. We need to play in areas where materials managers haven't always played."

> **'It's a wake-up call ... to step out of our traditional role as technical experts and become hospital leaders.'**

That means purchasing decisions increasingly will have to be based on effectiveness and value rather than price alone, on everything from tongue blades to beds to stents to knee implants. "Are we putting in the most appropriate devices for the patients we have?" Stitt asks. Ultimately, treating physicians have to make that decision, he adds, but materials managers need to have a voice in the product-selection process.

Decision-makers likely will have more and better information on the comparative value of different medical devices, drugs and procedures due to a more robust federal comparative-effectiveness research program created by PPACA and the 2009 American Recovery and Reinvestment Act, also known as the economic stimulus bill.

"Reform is going to make hospitals take a closer look at whether they should pay for new equipment if the evidence isn't there to show greater effectiveness or safety than existing technology," says Jim Keller, vice president for health technology evaluation and safety at ECRI Institute, which reviews the scientific evidence on devices and drugs.

The new Medicare payment policy on preventable readmissions raises the stakes for reducing health care-

associated infections (HAIs) and other conditions, and that means new pressure on environmental and operations managers.

Patti Costello, executive director of the Association for the Healthcare Environment, formerly known as the American Society for Healthcare Environmental Services, says managers will have to improve processes to minimize the chances of infection via high-touch surfaces and objects. And they'll have to do it with fewer resources. "We're trying to teach people to standardize processes, eliminate defects and remove inefficiencies without cutting corners on safety and quality," she says.

A team approach

Virginia Mason Medical Center in Seattle is ahead of the curve in having facilities directors, designers and engineers work with clinicians to reduce HAIs, patient falls and other causes of preventable readmission and longer stays. Interdisciplinary teams have studied how to minimize patient transfers to cut down on falls, and have examined new ventilation techniques and such surface materials as copper to prevent the spread of infections.

"When we look at the causes for readmission, the [hospital's] physical environment is a major source," says Stephen Grose, Virginia Mason's administrative director of support services. "Health reform will require a comprehensive approach to operations and design. I don't think it's a maybe. It's a must."

Hospital architects and construction managers also will have to become more a part of multidisciplinary strategic teams in the post-reform era, says Joseph Sprague, FAIA, FACHA, senior vice president at HKS Architects in Dallas and president of the American College of Healthcare Architects. With millions of newly insured patients, hospital systems must figure out their needs and how best to provide access. Medicare, he notes, will offer incentives to deliver more outpatient care.

Designers and builders will have to craft smart facilities that reduce the fixed cost of providing care, incorporating energy savings, sustainable materials, and a modern information technology infrastructure, Sprague says. Facilities likely will be more mixed use — including chronic care and long-term care — than just acute care and medical-surgical, due to the health needs of an aging population. He also stresses the need to design for the coordinated flow of patients through the hospital to maximize safety and quality of care.

"The best advice for designers is try to be as flexible as possible and accommodate unforeseen changes in technologies and patient care," Sprague says. "The bottom line is you'll have to become much more knowledgeable about what's going on out there."

The IT connection

Given the new law's emphasis on primary and community-based care, such as the patient-centered medical home, "the $64,000 question for planners and designers is which services will remain on the hospital campus and which will be dispersed throughout the community," Woodin says. This community-care focus also means that hospitals will have to adopt technology to monitor patients with chronic conditions at home remote-

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ly, to better prevent hospitalizations.

Hospitals also face a looming timetable under the stimulus bill to implement meaningful use of electronic medical records (EMRs), which is considered integral to health reform. This creates challenges for materials managers, engineers, and designers, as well as information technology (IT) managers.

"It forces us to look at how different systems and medical equipment talk to each other," Stitt says. "We need a long-term plan for IT infrastructure, and when we make medical equipment purchases, we have to be concerned about how that equipment fits into the plan."

Installing EMRs and advanced IT is a particular challenge for older hospitals and those with a mix of older and newer facilities. "We're seeing a huge demand for bedside-driven data," Woodin says. "But the technical challenges in getting the same reporting and data exchange throughout a complex variety of buildings is a problem smacking us in the face now."

The Joint Commission has put out a sentinel-event alert about safe adoption of IT and is working on measuring the meaningful use of EMRs, says Trisha Kurtz, director of federal relations. It also has just released proposed requirements for accreditation of patient-centered medical home programs, and is looking at how to evaluate accountable care organizations.

More broadly in the post-reform environment, the Joint Commission would like its on-site accreditation surveys to be considered in Medicare's ranking of hospitals under its value-based purchasing initiative that ties financial incentives to specified performance objectives. But it's not yet established whether accreditation will be part of that ranking. "You can't measure everything," Kurtz argues. "We believe someone needs to go out and do an on-site assessment visit."

While experts urge a multidisciplinary collaboration among facilities professionals, senior executives and clinicians, a major issue is whether the culture of particular hospital organizations will allow that to happen. "Finding a methodology everyone can agree on to make decisions will be a challenge," Stitt says. "But health reform will make that an absolute necessity. It will become much easier to add to the bottom line through expense reduction and cost avoidance than through generating additional revenue."

Another big question is whether facility managers will focus on the shrinking resources and get discouraged, or embrace the challenge of leading their institutions into a new era of lower costs and better care.

'Let's roll up our sleeves'

"I've heard doom and gloom for the 28 years I've been in health care," Woodin says. "I can't ever remember when they didn't talk about doing more with less. But the rising cost of health care is unsustainable and we can't keep doing what we're doing. Let's roll up our sleeves and get to it." **HFM**

Harris Meyer, Yakima, Wash., is a freelance writer who specializes in health-care industry topics.

HOLDING STEADY

Construction professionals look to deliver **technology** and **operational** gains

BY MIKE HRICKIEWICZ

A year that saw contentious passage of comprehensive health care reform, a sluggish economy triggered by a severe financial crisis and rancorous congressional elections followed by threats of repealing the reform package was bound to bring uncertainty to health care planning, design and construction.

Perhaps that's why many health construction industry players seem undaunted by 2010's relatively flat performance.

Though hardly inspiring, this level of activity was certainly welcome after the battering health care construction took in 2009. Moreover, most forecasters expect building activity to start moving forward again next year as the push for efficiency and advanced technology drives new capital spending plans.

The numbers

The depth of 2009's health care construction crash is apparent in the raw square footage numbers.

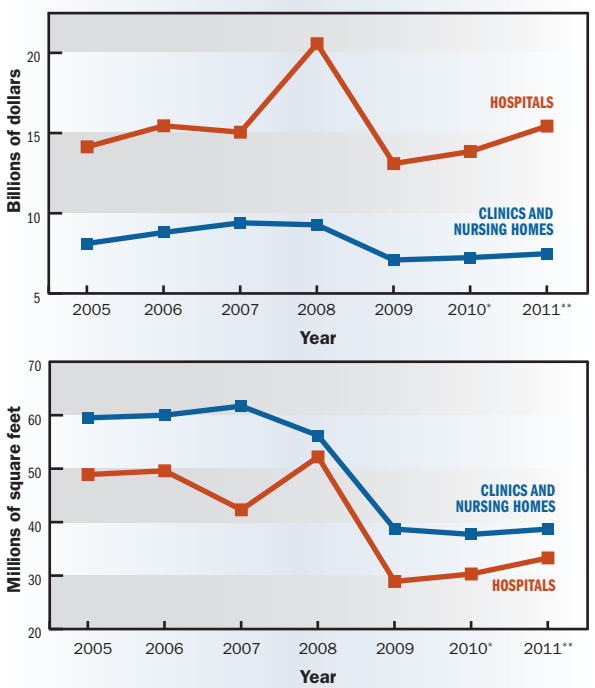
"Following the near-record high in 2008, health care facilities plunged 38 percent in 2009 to 68 million square feet, the worst one-year decline in at least 50 years," Robert Murray, vice president of economic affairs for McGraw-Hill Construction writes in the firm's Construction Outlook 2011 report. "Neither sector in the health care building category performed well last year: Clinics/nursing homes fell 31 percent and hospitals tumbled by 45 percent."

Plagued by a weak economy and tight credit stemming from the late-2008 financial crisis, many hospital construction professionals spent the better part of 2009 disengaging from stalled projects and "burning off" work put in the pipeline before the downturn. A number of them also pursued a rush of Department of Veterans Affairs (VA) and Department of Defense (DoD) projects that were sent out to bid.

"The VA is in the midst of one of their largest capital expansion programs since World War II and the DoD has several large projects underway," says Kevin Haynes, consultant at FMI Corp., Raleigh, N.C. "Clearly, a

CONSTRUCTION START STATISTICS

Health care facilities

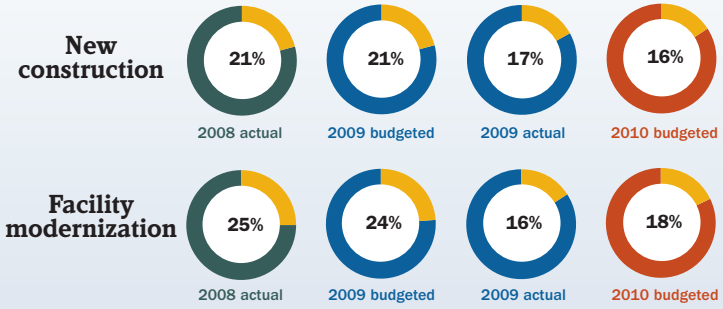


*Projection based on first 9 months of the year. **Forecasted.

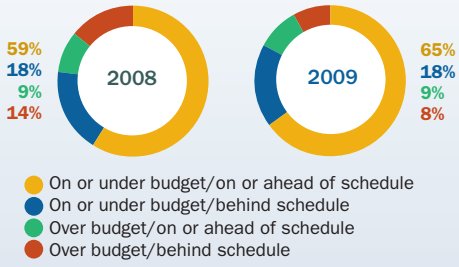
SOURCE: McGRAW-HILL CONSTRUCTION

CONSTRUCTION BUDGETS

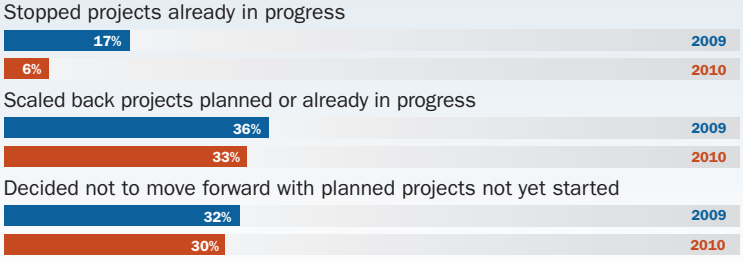
Percentage of hospitals' capital budget allocated to construction projects (average)



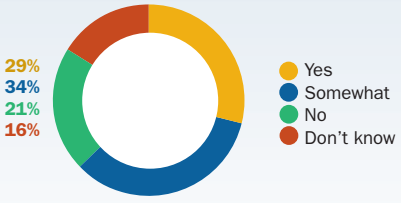
Percentage of recently completed construction projects by budget and schedule



Percentage of hospitals' changed capital plans for construction projects due to current economic conditions



Does the discussion on health care reform impact future facilities' development plans?



SOURCE: *HEALTH FACILITIES MANAGEMENT*/ASHE 2010 CONSTRUCTION SURVEY

2011 HOSPITAL BUILDING REPORT COMING IN FEBRUARY

For a more comprehensive look at what the hospital construction market will look like next year, watch for the 2011 Hospital Building Report in the February issue of *Health Facilities Management*. The annual report will include exclusive data from a nationwide survey conducted by *Health Facilities Management* and the American Society for Healthcare Engineering. ■

lot of activity has swung over to the public sector side," adds Russ Wenzel, senior vice president, McCarthy Building Companies Inc., St. Louis.

While initial fears of a banking meltdown eased, they were replaced by the uncertainty of a heated health care reform debate, which continued on through this year. Eventually, as reform passed and the debate over it moved to background noise, industry professionals settled into a "new normal" based slightly above or below 2009's construction totals.

"I think we all kind of came to grips with what the impact was in 2009," sums up Wenzel. "And it's more or less stayed at that level."

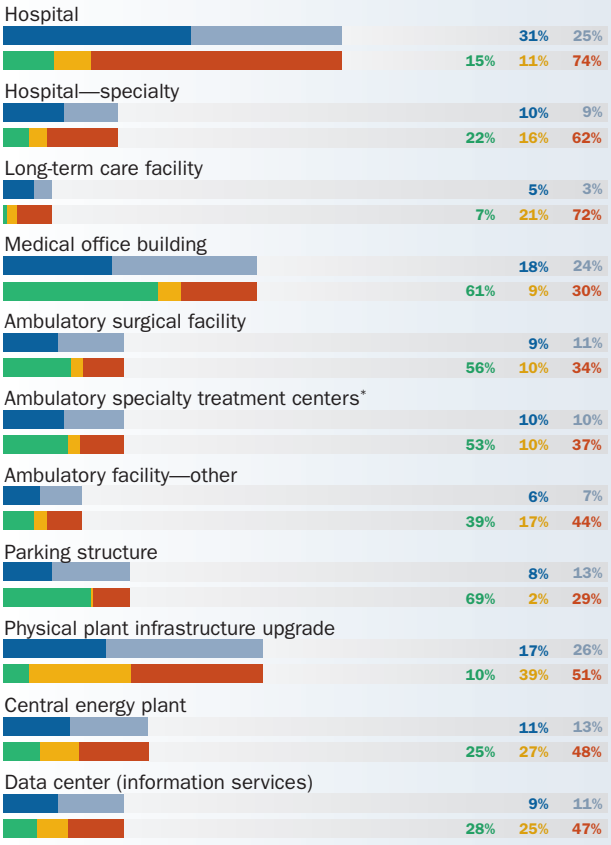
Improved conditions

For its part, McGraw-Hill estimates health care construction for 2010 to stay at 68 million square feet, with a 5 percent increase for hospitals combined with a 3 percent decrease for clinics and nursing homes.

"While the steepness of the 2009 downturn was unsettling, a sense of stability has returned to the category in 2010," McGraw-Hill's Murray writes in Construction Outlook 2011. "Improved conditions have allowed many established projects to resume, and low interest rates have made financing these developments more

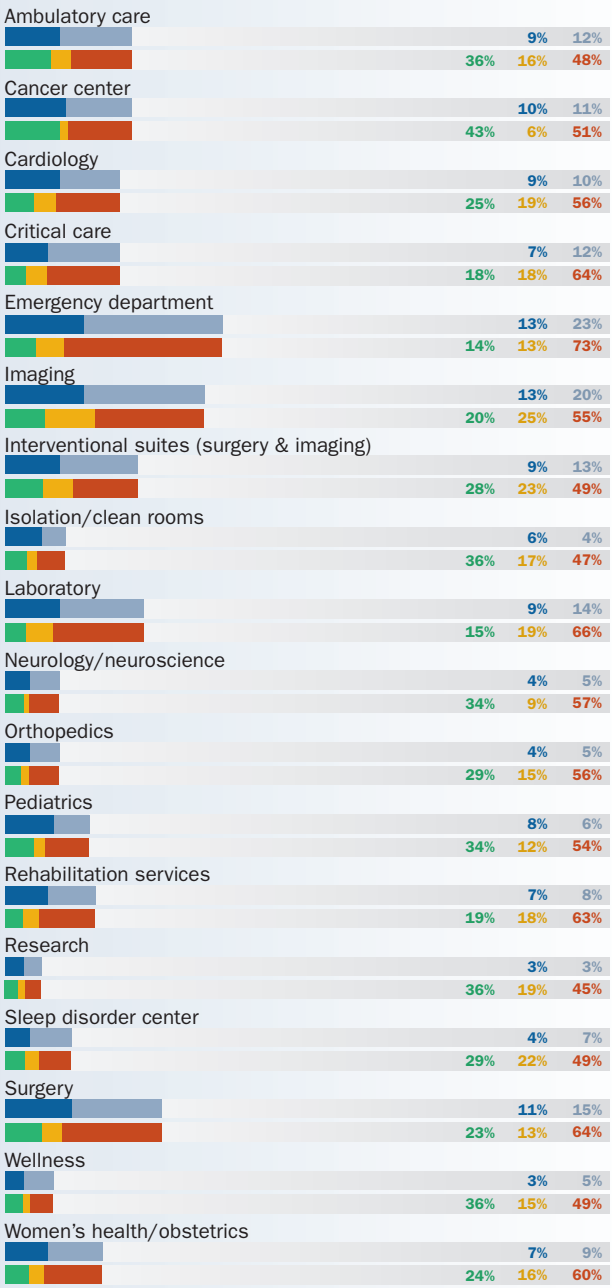
HOSPITAL CONSTRUCTION

Facilities Projects



*Oncology, pediatrics, etc.

Services/Department Projects



Project time frame

Currently under construction | Planned in the next 3 years

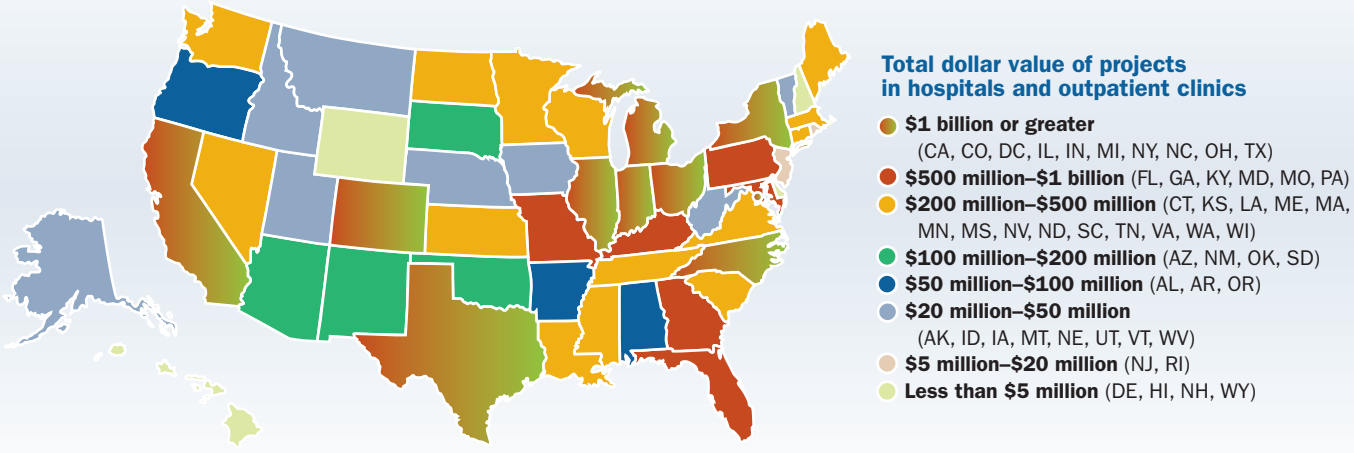
Construction type for facilities projects that are under construction or planned for construction in the next three years

New | Replacement | Expansion/Renovation

SOURCE: *HEALTH FACILITIES MANAGEMENT*/ASHE 2010 CONSTRUCTION SURVEY

HOSPITAL **NEW CONSTRUCTION** HOT SPOTS BY STATE

Total dollar value of new construction projects* in hospitals and outpatient clinics



*Projects on the boards as of Oct. 31, 2010. SOURCE: REED CONSTRUCTION DATA/RSMEANS, 2010

attractive from a fiscal standpoint. Additionally, the passage of health care reform alleviated the uncertainty that had been undermining investment."

Indeed, most experts agree that hospitals with healthy balance sheets and adequate reserves are able to find money. "Clients are continuing to go to the market and get financing," says Richard Galling, president and COO of health care consulting and development firm Hammes Company, Brookfield, Wis. "I think they would tell you the underwriters are probably more stringent today, but not ridiculously so."

And many hospitals that have re-bid their construction projects have been pleasantly surprised by the drop in construction prices, according to Galling.

"We had a couple of projects that were put on hold at the beginning of the financial crisis when they were in design phase," he says. "Then, the clients had those projects competitively re-bid when they were restarted, and the prices were about 15 percent lower than their original estimates before the financial crisis."

The ability to get capital still appears to be a two-tiered system, however.

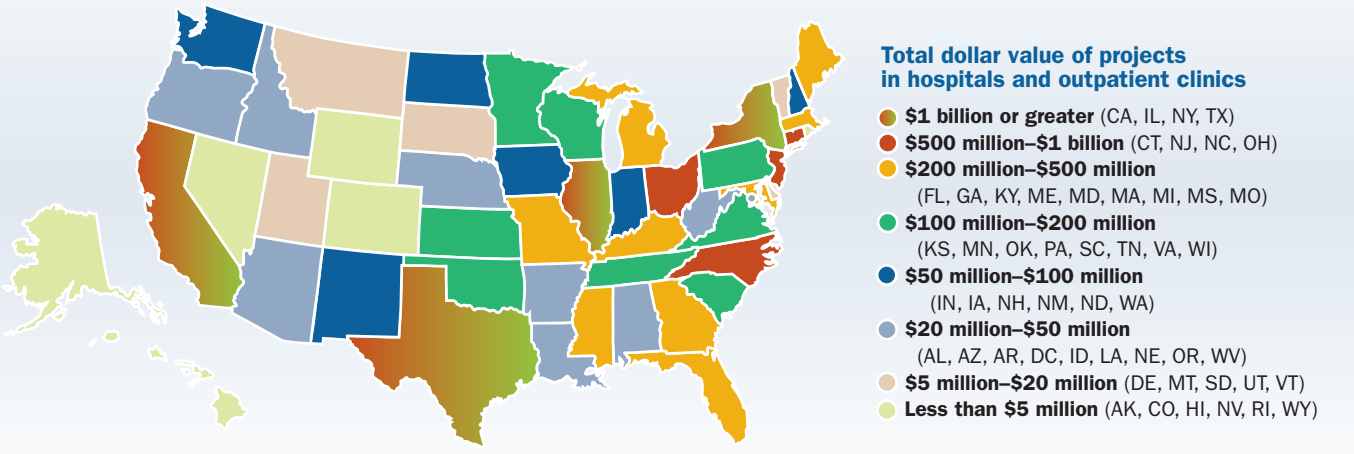
"The very small projects where a hospital would be going to a small regional lender are more problematic," says Jim Haughey, chief economist for Reed Construction Data, Norcross, Ga., "because a lot of small regional lenders are still in deep financial trouble."

Galling speculates that the industry's uptick in merger-and-acquisition activity is at least partly attributable to smaller hospitals having trouble finding capital, not only for construction projects but also for information technology (IT) upgrades.

In fact, Michael Kuntz, senior vice president in charge of New York-based Turner Construction Co.'s health care group, believes the drive for IT may be contributing to some growth in renovation projects. "A smaller regional hospital has to go ahead and make that [IT] investment or run the risk of becoming a potential acquisition target," he says.

HOSPITAL **RENOVATION** HOT SPOTS BY STATE

Total dollar value of renovation projects* in hospitals and outpatient clinics



*Projects on the boards as of Oct. 31, 2010. SOURCE: REED CONSTRUCTION DATA/RSMEANS, 2010

TOP BUILDING PROJECTS AND PLAYERS

CURRENT AS OF OCT. 31, 2010

Despite an uncertain economy and rancorous health care-reform debate, the nation's architectural firms and health care organizations are working on a number of large-scale planning, design and construction projects. This market overview analysis is provided by Reed Construction Data/RSMeans.

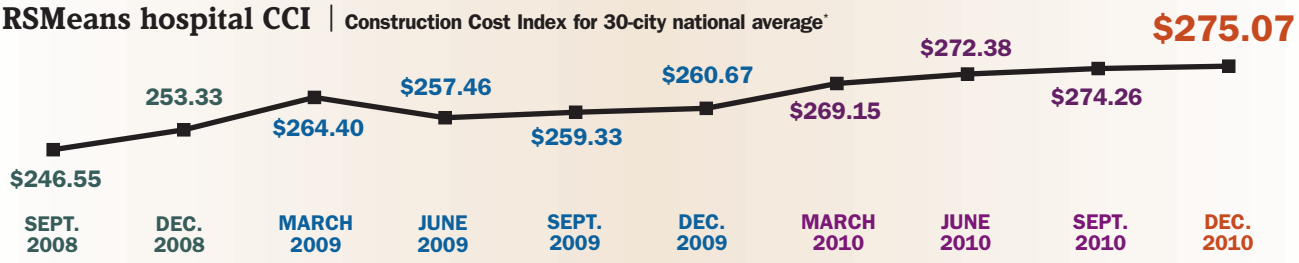
RSMeans provides cost-engineering studies and market analytics for health care construction and facilities management. Data is analyzed from Reed Connect™ of Reed Construction Data. For information, call 781-422-5101.

Top Projects on the boards | Construction projected to bid in next 12 months*

FACILITY	LOCATION	DOLLAR VALUE
March Lifecare	Riverside, Calif.	$3.3 billion
Moreno Valley Medical Village	Riverside, Calif.	2.7 billion
Howard University Medical Campus	Washington, D.C.	1.1 billion
VA Medical Center Replacement Hospital	Aurora, Colo.	768 million
McLaren Healthcare Village	Clarkston, Mich.	500 million
Stanford Hospital & Clinic	Stanford, Calif.	500 million
FSP Fort Hood Hospital	Fort Hood, Texas	500 million
Lucille Packard Children's Hospital	Palo Alto, Calif.	450 million
Highland Hospital	Oakland, Calif.	431 million
Owensboro Medical Center	Owensboro, Ky.	400 million

*As reported for projects in the planning phases.

RSMeans hospital CCI | Construction Cost Index for 30-city national average*



*Forecasted numbers. Materials, labor and equipment are researched quarterly to establish index. Based on the Means Square Foot Model for Hospitals. Index does not include site work, land costs, development costs, specialty finishes or equipment, basement and selected architectural fees.

Construction investment

Hospital and clinic construction in all states*

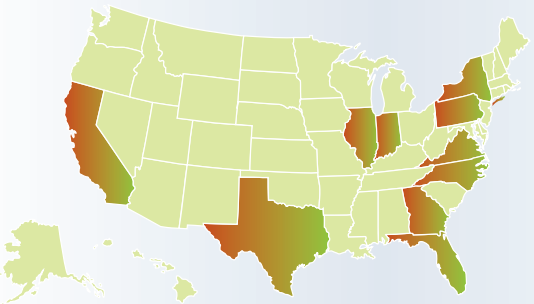
NEW CONSTRUCTION
$62.5 billion

RENOVATION
$29.8 billion

*Project abandonment averages 3 percent. Renovation tracking is for major renovation projects.

Top states with construction

New hospital and clinic construction under way (based on square footage)



1. Texas
2. California
3. New York
4. Illinois
5. Pennsylvania
6. North Carolina
7. Florida
8. Indiana
9. Virginia
10. Georgia

Top architects | New construction under way

FIRM	DOLLAR VALUE
HKS Inc.	$1.53 billion
HDR Architecture Inc.	1.09 billion
Zimmer Gunsul Frasca Partnership	770 million
Anderson Mikos Architects	635 million
Solomon Cordwell Buenz & Associates	600 million
RMJM Hillier	550 million
Ellerbe Becket	504 million
PageSoutherlandPage	408 million
Earl Swensson Associates Inc. (ESa)	350 million
Perkins+Will	313 million

Top architects | Renovation under way

FIRM	DOLLAR VALUE
RTKL Associates Inc.	$755 million
HKS Inc.	515 million
Leo A. Daly Co.	417 million
Tsoi/Kobus & Associates	302 million
Anshen & Allen Architects	288 million
Vanasse Hangen Brustlin (VHB)	259 million
Sterling Barnett Little Inc.	250 million
Hammel Green & Abrahamson (HGA) Inc.	233 million
HDR Architecture Inc.	216 million
VOA Associates Inc.	191 million

Kuntz estimates that 30 to 35 percent of Turner's health care renovation work is driven by changing technology, and expects that to increase to half of its renovation work within a couple of years.

The interest in IT is a two-edged sword, however. Some say that IT and other efficiency initiatives are competing with construction projects in capital budgets.

"Aside from financing problems, our health care customers have seen heavy capital demands from implementing electronic medical records and strategic provider networks," Wenzel explains. "And they have had to deal with these needs as well."

Reform drivers

Health reform also appears to be an influence on IT-related construction projects, though the size of its role is a matter of conjecture. While some industry players believe it's coincidental to technology trends that already are underway, others believe it's key.

"A huge component of the health care reform bill is information technology," says Kuntz, whose company is a strategic partner in the Center for Connected Medicine (**http://connectedmed.com**). "And hospitals will struggle to remain competitive if they don't have robust IT systems."

Ultimately, Kuntz believes the reform-driven emergence of electronic health records and the advent of telemedicine are ushering in an IT wave that will dominate the industry within 5 to 7 years. "The hospitals we build today are certainly digital but there's another quantum leap yet to happen," he explains.

In addition to driving technology, health care reform and the general move toward greater efficiency also are leading many hospitals to look at outpatient construction.

"I think there's been a general trend toward ambulatory facilities," Murray says. "By increasing the number of insured, it stands to reason that health care reform would encourage hospitals to look at smaller-scale facilities."

"We're seeing a tremendous amount of interest in ambulatory," Galling agrees. "That's largely due to anticipation that we're going to be moving toward accountable care organizations and bundled payments. Many of the clients we're working with are focused on how that will occur and recognize that ambulatory is going to be a huge part of it."

Wenzel adds that the lower cost of constructing these types of facilities also may be contributing to their popularity.

"I think there's maybe a little pent-up demand by some health care systems that have very local strategies," he theorizes. "And ambulatory facilities are obviously more affordable per square foot, so the systems are able to act on them for strategic advantage."

Opinion is mixed on how threats to repeal reform would affect the health care market in the coming year.

Many say it will have little effect, since reform measures are merely pursuing efficiency goals that the health care industry needs to address. "I think many believe that the industry is going to end up here anyway," Galling says. "And, when you really look at it, it is a good method for containing costs."

However, a few say the repeal talk is adding another level of uncertainty to an already tenuous financial situation. "I don't think anybody knows exactly what's going to happen from a revenue standpoint," says Jay Bowman Sr., consultant and principal at FMI. "So there's sort of a hedging of bets right now."

Moving forward

While the health care construction market is fraught with uncertainty as it moves forward, most industry forecasters are cautiously optimistic.

McGraw-Hill, for instance, expects hospital square footage to grow another 10 percent next year, with clinics and nursing homes rebounding 3 percent. A more circumspect Kuntz predicts a slightly better 2011 for all health care categories, though not by much. "If you called it even, that would be a safe bet."

After noting several large-scale hospital projects currently underway, McGraw-Hill's Murray writes, "Supportive demographics also underlie the stronger gain for 2011, as the aging population and continued federal support of Medicaid bolsters the ranks of the insured."

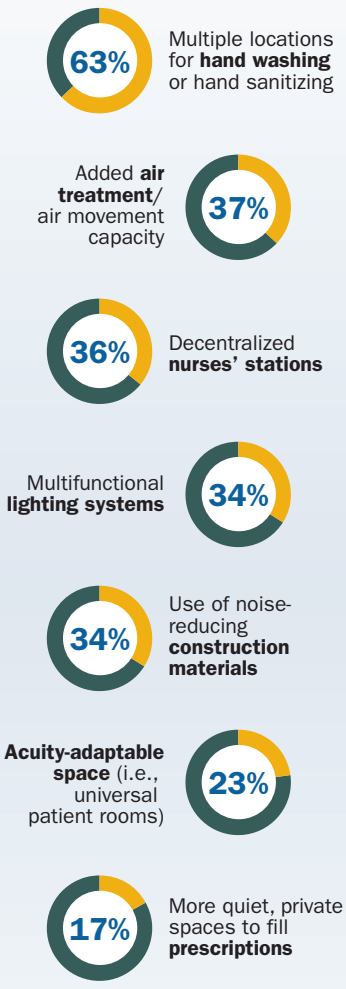
Indeed, as Kuntz contends, demographics and advancing technology often have provided buffers for an industry particularly vulnerable to political winds. "The demands of the aging population and the number of obsolete facilities are creating a lot of demand for new construction," he says. "If there's any market to be bullish on, it's health care."

But, no matter how reassuring these buffers, the winds of uncertainty are not expected to let up any time soon. "The biggest problem right now is the lack of any clarity out there," Bowman concludes. "When nobody knows where it's going, wallets clamp down." **HFM**

Mike Hrickiewicz is editor of *Health Facilities Management* magazine.

FACILITY DESIGN

Features being incorporated into the hospital's physical design to improve patient safety and quality



Percentage of hospitals incorporating a patient entertainment and education system in the patient room

SOURCE: *HEALTH FACILITIES MANAGEMENT*/ ASHE 2010 CONSTRUCTION SURVEY

GOING GREENER

Hospitals continue to make sustainability a priority

BY JEFF FERENC

Hospitals plan to make their facilities greener, knowing that it is one way to cut or at least control costs and improve the indoor environment for staff and patients. But hospitals frequently must limit their sustainability actions because of ongoing financial challenges, including the prospect of reduced reimbursements under health care reform.

Nevertheless, the Energy Efficiency Indicator (EEI) survey conducted earlier this year by the American Society for Healthcare Engineering (ASHE), the Johnson Controls Institute for Building Efficiency and the International Facility Management Association, found that 66 percent of the health care respondents are paying more attention to energy efficiency than they were a year ago.

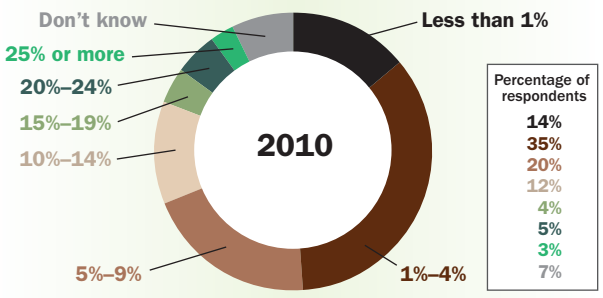
Robin Guenther, FAIA, LEED AP, sustainable health care design leader at architectural design firm Perkins+Will, New York, says more hospitals will continue to move forward with making their facilities sustainable for a variety of reasons, even if the investments are modest for now.

First, the launch of the U.S. Green Building Council's LEED for Healthcare rating system is likely to produce increased interest in sustainable building, she says. Second, the increased recognition of health care facilities that are champions of green operation initiatives also is generating greater interest in sustainability.

In addition, the health care sector is "paralleling larger market movement toward sustainable practices" in such areas as healthier materials and chemicals avoidance, healthy food, green cleaning and green building, she says. Plus, it's good business to be green.

"As the business case for these practices continues to yield economic benefits, hospitals will continue to implement programs," Guenther says. "Finally, organizations that are undertaking these initiatives are finding they support broader organizational transformation and support staff retention and satisfaction."

PERCENTAGE OF 2010 CAPITAL BUDGET EXPECTED TO BE INVESTED IN ENERGY EFFICIENCY



SOURCE: JOHNSON CONTROLS ENERGY EFFICIENCY INDICATOR RESEARCH

How much hospitals spend on energy efficiency — a key component of sustainability — is another matter. The EEI survey says that half of the hospitals that responded lack a capital budget to make energy-efficiency investments. Even though 68 percent of the health care respondents said they expect to invest in energy-efficient capital equipment in the next 12 months, 49 percent said the amount invested would be 4 percent or less of the capital budget, according to the EEI survey.

Cost savings is king

That being said, it's no surprise cost savings is the primary motive for energy efficiency investments by health care facilities. In fact, 88 percent of the health care organizations that responded to the EEI survey said cost savings is very or extremely important and

99 percent of the organizations said it is at least somewhat important.

The survey reports that the most common energy-saving actions hospitals take are retrofitting to energy-saving lighting and adjusting HVAC controls schedules, followed by installing in-occupancy sensors and new DDC controls. All are fundamental steps, but still energy savers, says Derek Supple, program director for global energy and sustainability, Johnson Controls.

The results of the ASHE/Association for the Healthcare Environment (AHE, formerly the American Society for Healthcare Environmental Services) 2010 Health Care Facilities Sustainable Operations survey conducted with *Health Facilities Management* earlier this year are similar to EEI's findings. Our survey data found the most common energy management initiatives hospitals undertook the last two years were implementing a preventive-maintenance plan, retrofitting to energy-efficient lamps and installing occupancy sensors or timers.

'As the business case for [sustainable] practices continues to yield economic benefits, hospitals will continue to implement programs.'

— Robin Guenther, FAIA, LEED AP, Perkins+Will

One noteworthy trend that emerged from the EEI survey shows that 27 percent of hospitals utilize a demand-response system with their local utility to save energy during summer peak loads, says Supple. Demand response involves the utility sending a signal or message to the hospital to take actions to cut their power usage to reduce energy consumption. A few basic steps include adjusting HVAC set points, dimming lights, reducing power to noncritical computer servers or putting computers in standby mode, says Supple.

Rick Smith, director, energy solutions, Johnson Controls, foresees another possible trend for hospitals in which the piecemeal approach to energy efficiency gives way to a more sophisticated building strategy to maximize energy savings. "I think the consideration of a holistic approach versus a one-off improvement will perhaps get more attention as we go down the path here," he says.

"If we reduce the electrical load, we reduce the heat load, which means we're going to have a different-sized application, perhaps, for our central chiller or chilled water system," Smith says. "So, if we take all those interactions into play as one large system versus individual retrofits, you'll have first-cost reduction, you'll have life-recycle improvement for the equipment, and you'll have a larger energy savings gain."

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Waste not, want not

Hospitals generate nearly 6 million tons of garbage annually, and that's not counting recycled waste, according to a recent report using data from Practice Greenhealth. It's little wonder that finding ways to reduce the waste stream is becoming a higher priority and that recycling only will become a bigger imperative, along with boosting energy efficiency, experts say.

"Hospitals seem to have success in waste reduction and energy efficiency for two reasons," Guenther says. "First, both these programs can yield substantial economic savings. A dollar saved in operations is a dollar transferred to the bottom line.

"Many hospitals have funded their sustainability coordinators from their savings in waste fees alone, largely through reducing overall volume as well as the volume of regulated medical waste. Secondly, both energy and waste appear to have economical 'low-hanging fruit' strategies," she says.

Because regulated or hazardous medical waste is much more expensive to dispose of than nonregulated medical waste, it pays to ensure waste streams are separated correctly. Recycled waste usually is hauled away for no charge or the hospital may get a rebate depending on the agreement with their waste hauler, sources say.

"Therefore, if you move material from a more expensive waste stream to a less expensive stream, you will ultimately save money," says Dr. Linda Lee, health care solutions operations director, Waste Management Inc., Houston.

'I think the consideration of a holistic approach [to saving energy] versus a one-off improvement will perhaps get more attention as we go down the path here.'

— Rick Smith, Johnson Controls Inc.

The financial advantages of smart waste disposal are causing more hospitals to establish plans. The ASHE/AHE/*HFM* survey found that the top three waste management initiatives hospitals implemented within the past two years were to track waste volume and waste stream costs (58 percent), develop a waste management assessment for all materials and waste streams (56 percent), and to establish a waste management plan (53 percent). The trend shows continued growth in those waste-reduction strategies.

"As we can find opportunities to move material into more beneficial use rather than just throwing it away, we're seeing a high level of engagement from hospitals," says Lee. "Hospitals want it to be cost neutral or they don't want to spend any more money on waste disposal than necessary."

Many hospitals can save hundreds of thousands of dollars on waste disposal just by learning how to handle their waste stream properly, says Lin Hill, Environmental Excellence Awards program manager, Practice Greenhealth.

The new oil

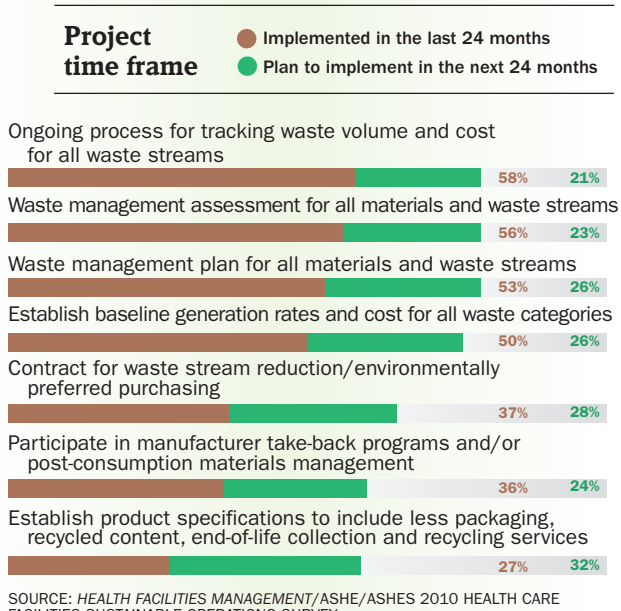
Some sustainability experts are calling water the new oil. Certainly, in areas of the Southwest and West water already is a precious commodity. But despite its scarcity in some regions, water conservation is not an area that all hospitals emphasize in their sustainability efforts.

The ASHES/AHE/*HFM* survey found that only 41 percent of health care facilities measure their water savings. In comparison, 69 percent measure their energy

TOP **WATER CONSERVATION** INITIATIVES BEING IMPLEMENTED TO REDUCE WATER USAGE

SOURCE: *HEALTH FACILITIES MANAGEMENT*/ASHE/ASHES 2010 HEALTH CARE FACILITIES SUSTAINABLE OPERATIONS SURVEY

TOP **WASTE MANAGEMENT** INITIATIVES BEING IMPLEMENTED TO REDUCE WASTE



SOURCE: *HEALTH FACILITIES MANAGEMENT*/ASHE/ASHES 2010 HEALTH CARE FACILITIES SUSTAINABLE OPERATIONS SURVEY

WASTE GENERATION BY TYPE OF WASTE STREAM

The following data is from Practice Greenhealth's 2010 Sustainability Benchmark Report. The report summarizes data from the 2010 Environmental Excellence Awards applications and contrasts the Environmental Leadership Circle (ELC) winners at the top level and the Partner for Change (PFC) winners at the main level.

WASTE TYPE	AVERAGE OF TOTAL WASTE STREAM		
	2009 PFC winners	2010 PFC winners	2010 ELC winners
Solid or non-regulated medical waste*	68%	66%	56%
Recycling**	24%	24%	36%
Regulated medical waste (RMW)*	8%	9%	7%
Hazardous waste***	.46%	1.1%	.6%

* Some of the solid waste numbers may contain treated RMW (e.g., when treated onsite by autoclave before being landfilled), which drives the solid waste percentages up and the RMW percentages down.
** The recycling numbers may include prevented or avoided waste.
*** The hazardous waste percentages were generally reported as less than 1 percent, but this number should not be zero for any hospital.

SOURCE: PRACTICE GREENHEALTH

savings and 61 percent measure their waste reduction savings.

Despite the lower number, Melissa Cain, regional manager, Phigenics, a water-management consulting firm based in Naperville, Ill., says the trend is for hospitals to expand their water conservation efforts. "I would say that over the last five years of working with our health care clients that water conservation is a priority. If it's a facility that's already addressing sustainability, water is a big part of that," says Cain.

The ASHE/AHE/*HFM* survey shows the most commonly implemented water saving initiatives are installing such control fixtures as motion sensors or aerators on faucets, installing low-flow fixtures on toilets and urinals, and employing condensate recovery systems.

Efforts to reduce process water typically vary by region, says Guenther. "In terms of process water use, more hospitals in arid regions are planting drought-resistant vegetation and using captured condensate for cooling towers, and captured rainwater or condensate for drip irrigation, but have been challenged to make the business case for installation of cisterns," she says. "Few are implementing grey-water or black-water systems due to continued concerns about regulatory barriers and infection control."

A major water guzzler at hospitals is landscaping, says Winston Huff, CPD, LEED AP, project manager/sustainable coordinator, Smith Seckman Reid Inc., Nashville, Tenn. "The largest irrigated crop in the U.S. is turf grass and at some hospitals up to one-third of their water usage can go into watering the grass," he says.

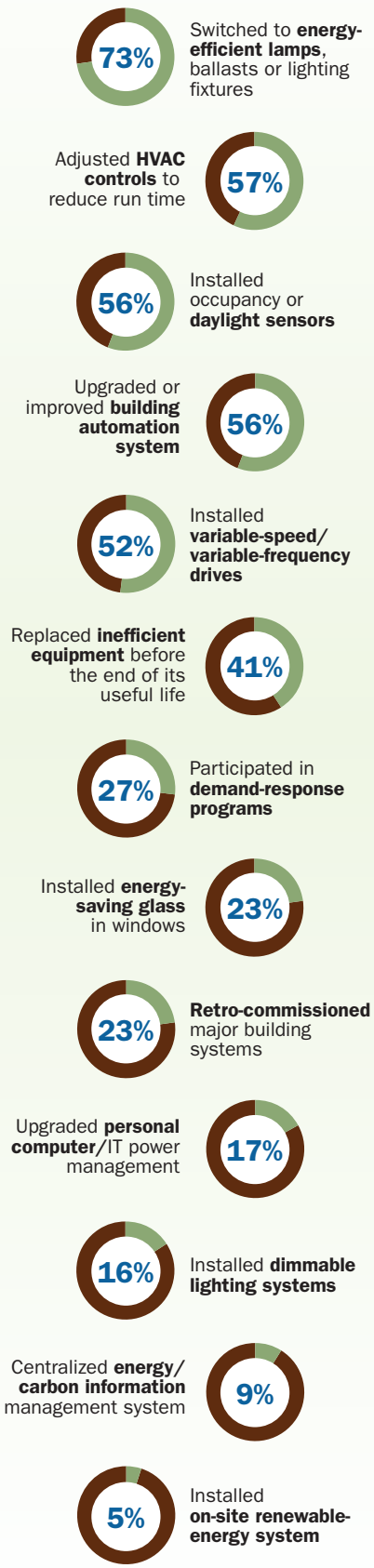
Huff says there is a trend for hospitals to plant drought-tolerant landscaping or native vegetation instead of turf grass to save water. The ASHE/AHE/*HFM* survey supports Huff's observation. Of the survey

'As we can find opportunities to move [waste] material into more beneficial use rather than just throwing it away, we're seeing a high level of engagement from hospitals.'

— Dr. Linda Lee, Waste Management Inc.

GREEN UPDATES

Percentage of health care respondents implementing measures over the past 12 months



SOURCE: THE INSTITUTE FOR BUILDING EFFICIENCY, JOHNSON CONTROLS

'The fact that hospitals are formalizing their green cleaning programs is relatively new.'

— Lin Hill, Practice Greenhealth

GREEN CLEANING

The following data is from Practice Greenhealth's 2010 Sustainability Benchmark Report. The report summarizes data from the 2010 Environmental Excellence Awards applications and contrasts the Environmental Leadership Circle (ELC) winners at the top level and the Partner for Change (PFC) winners at the main level.

	2010 PFC* winners	2010 ELC** winners
Have a building-specific green cleaning plan for their facility, such as the one outlined in the Green Seal Certification Checklist, standard GS-42	54%	67%
Use some green cleaning chemicals or products at their facility	90%	92%
Use some techniques for minimal chemical use	71%	92%
Have collaborated with the infection control committee to identify areas where use of disinfectants can be minimized or eliminated	83%	96%
Use or specify powered cleaning equipment (scrubbers, burnishers, extractors, vacuums or power washers) with Green Seal or other certification***	54%	54%
Power cleaning equipment is designed to minimize vibration, noise and user fatigue	75%	92%
Use microfiber mops	84%	96%
Facility has installed flooring that does not require regular stripping and/or polishing	64%	96%

*PFC is the Partner for Change Award given by Practice Greenhealth that recognizes health care facilities that continuously improve and expand upon their environmental programs on the path to sustainability.

**ELC is the Environmental Leadership Award given by Practice Greenhealth that recognizes health care facilities that exemplify environmental excellence and are setting the highest standards for environmental practices and sustainability in health care.

***Green Seal does not actually certify powered cleaning equipment, however the Carpet and Rug Institute has a Green Label program for vacuums and carpet cleaning equipment.

SOURCE: PRACTICE GREENHEALTH

'... at some hospitals, up to one-third of their water usage can go into watering the grass [on the facility's grounds].'

— Winston Huff, CPD, LEED AP, Smith Seckman Reid Inc.

respondents, 35 percent say they have implemented drought-resistant landscaping in the past two years and another 13 percent plan to implement it in the next two years.

Green cleaning

Hospitals are lagging in adopting green cleaning initiatives compared with other key areas of sustainability, but evidence shows that may be improving. While only 30 percent of hospitals in the ASHE/AHE/*HFM* survey said they measure savings from the use of sustainable cleaning practices, there is strong growth in the use of environmentally safe products.

In the last two years, 81 percent of survey respondents said they use microfiber mops and cleaning cloths to reduce water and chemical use. And 78 percent say they use cleaning equipment that does not negatively impact indoor air quality.

Practice Greenhealth's 2010 Sustainability Benchmark Report provides more positive news on sustainable cleaning. The report summarizes data collected from the 2010 Environmental Excellence Awards applications and contrasts the Environmental Leadership Circle (ELC), the highest level of winners, with the Partner for Change (PFC), the main level of winners.

The report says 67 percent of the ELC winners, who were recognized for their green cleaning and other initiatives, have developed a formal green cleaning program. The report says 54 percent of the Partner for Change-level winners have established a formal sustainable cleaning program. "The fact that hospitals are formalizing their green cleaning programs is relatively new," says Hill of Practice Greenhealth. "In the last five to 10 years, green cleaning has become more of a priority and more products are available."

The report also says that 96 percent of the ELC winners and 83 percent of the PFC winners have collaborated with their respective infection control committees to identify areas where use of disinfectants can be minimized or eliminated. Hill calls this an important development.

"It's expensive and time consuming to over clean and it's dangerous to under clean," says Hill. "These numbers are significant because it shows improved communication within the hospital." **HFM**

Jeff Ferenc is senior editor for *Health Facilities Management*.

CLEANING EVALUATION PAYS

New rewards coming for reducing HAIs

BY BOB KEHOE

Reducing health care-associated infections (HAIs) has its intrinsic safety and quality benefits. It won't be long, though, before monetary rewards follow.

With the passage of the Patient Protection and Affordable Care Act, the federal government has adopted a system to boost Medicare payments to hospitals that cut HAIs. Starting in October 2012, nonrural, acute care hospitals that meet or exceed five or more performance standards set by the secretary of Health & Human Services will receive higher Medicare payments from a pool of money collected from all hospitals.

This incentive-based approach is designed to foster greater patient safety and reward quality-improvement initiatives. It stands in stark contrast to the approach Medicare took in 2009, when it stopped reimbursing for "preventable" conditions, mistakes and infections resulting from a hospital stay.

Accountability reigns

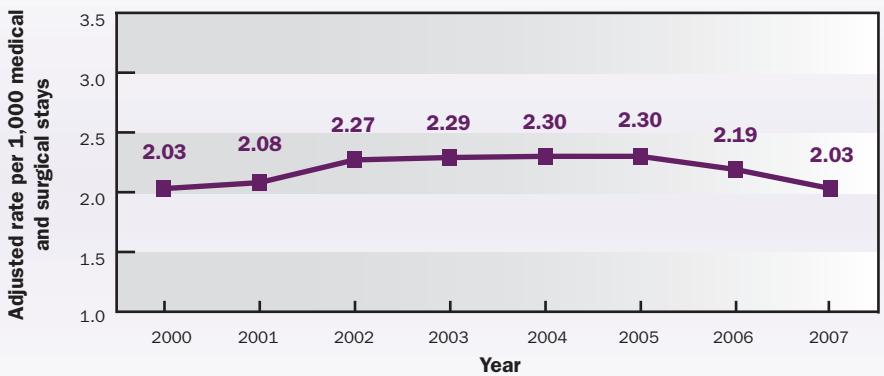
Will the carrot bring better results than the stick in getting hospitals to reduce HAIs? Only time will tell.

In the meantime, hospital executives likely will pay even closer attention to HAI rates. One reason for the heightened awareness of HAIs was underscored in a statistical brief issued in August by the Agency for Healthcare Research and Quality (AHRQ).

The AHRQ brief on the Healthcare Cost and Utilization Project examined infections due to medical and surgical hospital stays in 2007. One key finding: Patients who incurred medical care-related HAIs averaged 19.2 more days in the hospital and bills $43,000 greater than patients without HAIs.

With such high costs associated with HAIs, hospitals will need to focus on improving all aspects of infection

AN EIGHT-YEAR TREND IN THE ADJUSTED RATE OF HOSPITAL STAYS WITH INFECTIONS DUE TO MEDICAL CARE, 2000–2007*



*Rate is among those age 18 and older or obstetric admissions, and excludes immunocompromised and cancer patients, stays under two days, and admissions specifically for such infections. NOTE: Rates are adjusted by age, gender, age-gender interactions, comorbidities, and diagnosis-related group (DRG) clusters.

SOURCE: AGENCY FOR HEALTHCARE RESEARCH AND QUALITY, HEALTHCARE COST AND UTILIZATION PROJECT, NATIONWIDE INPATIENT SAMPLE, 2000–2007, AND AHRQ QUALITY INDICATORS, VERSION 3.1.

prevention, including cleaning in patient rooms and other patient care areas. Experts suggest infection control professionals and environmental services (ES) teams will need to evaluate carefully everything from the value of cleaning products to cleaning processes as they try to reduce HAI rates.

"The biggest thing people are focusing on is tightening up processes," says Linda Dickey, R.N., MPH, CIC, director of epidemiology and infection prevention at the University of California, Irvine. "Environmental services [teams] across the country are trying to get a clear handle on being able to evaluate cleaning. Is it getting done? Are we focused on the areas where it's going to make the most difference?"

Dickey, a spokeswoman for the Association for Professionals in Infection Control and Epidemiology, says validating cleaning isn't as commonplace as some might think. Often, hospitals concentrate on the visual aesthetics of floors, walls and the general environment to assess cleanliness, she says. Instead, ES teams must stay focused on using the correct surface-cleaning methodologies and the right products in high-touch areas nearest patients, Dickey advises.

Using a liquid marker that shows up only under ultraviolet light holds promise as a post-cleaning validation tool, Dickey says. ES managers can use this approach to help educate associates on key areas of patient rooms or bathrooms that may have been missed.

Finding the right products

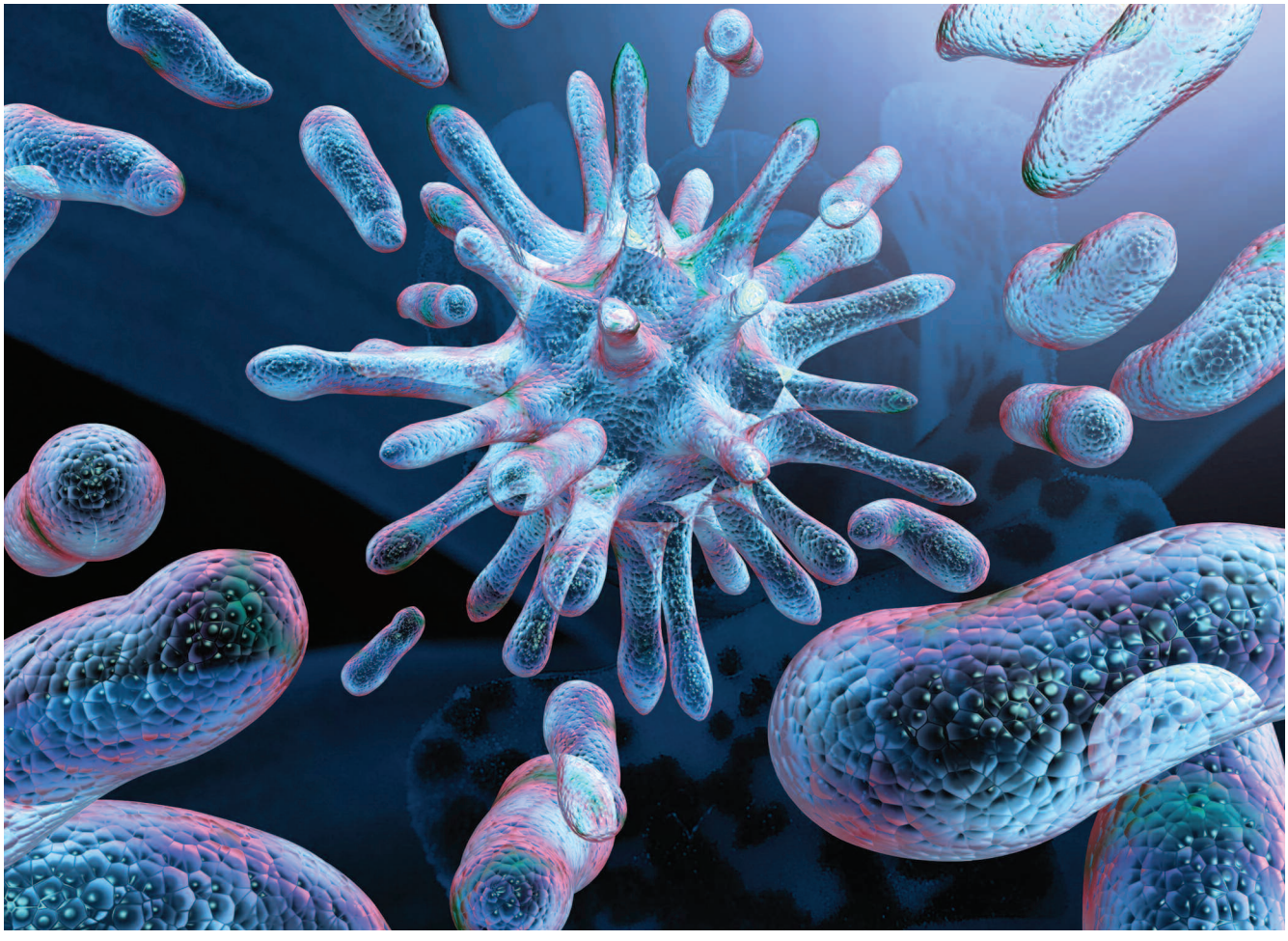
Of course, finding the right cleaning and disinfectant products for the many infection threats hospitals face presents challenges of its own. From cleaners and disinfectants to automated terminal cleaning systems for patient rooms to health care surfaces and paints with antimicrobial properties, ES and infection control professionals and hospital designers have a mountain of options to consider.

Lynne M. Sehulster, Ph.D., an infectious diseases health scientist with the Centers for Disease Control and Prevention (CDC) and a member of CDC's division of health care quality promotion, says validating claims is further complicated because many new products lack independent or third-party review in medical research literature to demonstrate their impact on reducing HAIs.

Take automated terminal cleaning systems for patient rooms, for example. Sehulster says evidence is building about the relative value of systems that use hydrogen peroxide or ultraviolet light to kill various microorganisms. As systems hit the market, there is always a certain amount of empirical laboratory data showing that the systems affect a certain log reduction in whatever organisms are targeted.

"In many instances that will be impressive, but the key piece of information we're hoping to see is when you use these systems — say it's a clinical trial — that you actually see an impact toward the reduction of HAIs. That's where the rubber meets the road," Sehulster says.

Other issues hospitals have to consider



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with these technologies, Sehulster notes, is the amount of staff time required in the room cleaning process. Research studies on these products often mention but don't emphasize the need to pre-clean surfaces.

"When you look at the instructions for all of these technologies at the moment, they certainly advise that surfaces to be treated should be pre-cleaned first, and that can be fairly labor intensive depending on how much cleaning is needed to help prepare the room," Sehulster says.

Surface issues

The research picture also is still emerging on the antimicrobial benefits such metallic surfaces as copper and silver have in reducing HAIs, Sehulster says. At the Fifth Decennial International Conference on Healthcare-Associated Infections held in March, the Copper Development Association (CDA) and a team of researchers from the Medical University of South Carolina presented clinical trial results assessing the ability of antimicrobial copper to reduce the amount of bacteria on surfaces commonly found in intensive-care unit patient rooms.

The first phase of the clinical trials, which were funded by the Department of Defense, showed that the most commonly contaminated surfaces were those in closest proximity to patients. High levels of *Staphylococcus aureus,* methicillin-resistant *S. aureus* and vancomycin-resistant enterococci were found on bedrails, call buttons and visitor chairs. In the second phase of the trial, copper bedrails, chair arms, call buttons, monitors and IV poles replaced the stainless steel and plastic versions in ICU rooms in three hospitals participating in the study: Memorial Sloan-Kettering Cancer Center in New York, the Medical University of South Carolina and the Ralph H. Johnson VA Medical Center, both in Charleston.

ICU rooms were chosen for a specific reason, noted Michael Schmidt, Ph.D., professor and vice chairman of the Department of Microbiology and Immunology at the Medical University of South Carolina in a release on the study.

"One in 20 hospital patients will develop a hospital-acquired infection; that number increases to 30 percent for patients in intensive care units," Schmidt explained.

The clinical trial results showed copper was effective in significantly reducing the total bacteria load in ICU patient rooms and on many individual objects in those rooms. But the CDA also reported "further study is needed to assess whether copper surfaces can play a role in preventing cross contamination and the transmission of hospital-acquired infections."

The key issue, Sehulster says, is whether future studies will demonstrate that copper-clad surfaces achieve the same stated log reductions of microorganisms over a defined time period in ICUs and other settings.

"There are empiric statements of performance, but what we need to see is whether putting these [surfaces] into daily use has an impact on the transmission of contamination and what happens to the hospital-acquired infection rate. Does it go up, down or stay the same?" Sehulster says.

Emerging infection threats

With threats from multidrug-resistant organisms always present, hospitals can use all the effective weapons they can get. One particularly dangerous and often deadly bacterial threat known as KPC — short for *Klebsiella pneumoniae,* exhibiting extended resistance to carbapenem antibiotics via carbapenemase, a bacterial enzyme capable of inactivating carbapenems — has caught the attention of infection control and prevention experts.

Earlier this year, 37 health facilities in Chicago reported an average of 10 KPC cases each, up from an average of four in 2009 in 26 facilities, according to the *Chicago Tribune.* Fortunately, KPC has not

COMPUTERS AID FIGHT AGAINST HAIs

Hospitals that use automated surveillance systems to identify health care-associated infections (HAIs) are more likely than those that rely on manual methods to deploy evidence-based infection control practices.

That's the conclusion of a study presented in July at the 37th Annual Conference & International Meeting of the Association for Professionals in Infection Control and Epidemiology.

Researchers at the University of California, Berkeley, conducted a survey of quality directors at 80 percent of the state's general acute care hospitals and found that those using automated surveillance systems to identify HAIs were more likely than those who rely on manual methods to have fully implemented research-based practices to reduce:

- methicillin-resistant *Staphylococcus aureus* infections (85 percent vs. 66 percent);
- ventilator-associated pneumonia (96 percent vs. 88 percent);
- surgical care infection practices (91 percent vs. 82 percent).

Automated surveillance technologies, often referred to as "data mining," are designed to collect infection data, thereby allowing infection preventionists to better protect patients by identifying and investigating potential clusters of HAIs in real time.

"Our findings suggest that hospitals that use automated surveillance technology are able to put more HAI elimination strategies into place that will ultimately reduce the risk of infection," says Helen Halpin, Ph.D., the study's lead author and professor of health policy at the university, in a release on the project. ■

MOST COMMON PRINCIPAL DIAGNOSES FOR HOSPITAL STAYS WITH INFECTIONS DUE TO MEDICAL CARE, 2007

RANK	PRINCIPAL DIAGNOSIS*	NUMBER OF STAYS WITH INFECTIONS DUE TO MEDICAL CARE	PERCENTAGE OF STAYS WITH THIS DIAGNOSIS AMONG STAYS	
			INFECTIONS STAYS	ALL OTHER STAYS**
1	Septicemia (except in labor)	4,982	11.8%	2.0%
2	Respiratory failure; insufficiency; arrest (adult)	2,510	5.9%	1.2%
3	Complications of surgical procedures or medical care	1,743	4.1%	1.3%
4	Acute myocardial infarction	1,364	3.2%	2.1%
5	Complication of device, implant or graft	1,346	3.2%	1.3%
6	Acute cerebrovascular disease	1,289	3.1%	1.8%
7	Pneumonia (except that caused by tuberculosis or STD)	1,261	3.0%	3.4%
8	Congestive heart failure; nonhypertensive	1,198	2.8%	3.4%
9	Intestinal obstruction without hernia	1,153	2.7%	0.9%
10	Pancreatic disorders (not diabetes)	1,112	2.6%	1.0%

*Principal diagnoses are grouped according to Clinical Classifications Software (CCS) categories.
**"All other stays" includes all other medical and surgical stays two or more days in length among those aged 18 and older or obstetric admissions, and excludes immunocompromised and cancer patients and admissions specifically for such infections.

SOURCE: AGENCY FOR HEALTHCARE RESEARCH AND QUALITY, HEALTHCARE COST AND UTILIZATION PROJECT, NATIONWIDE INPATIENT SAMPLE, 2007.

become a nationwide problem.

"Thankfully, we're not seeing it broadly across the country, but everyone [in the infection control community] is definitely keeping their eyes on it," Dickey says. "This is exactly what we're talking about in making sure that we have strong processes for [cleaning] devices, strong hand hygiene programs and strong environmental cleaning programs."

The CDC's Sehulster says KPC and the large group of carbapenem-resistant *Enterobacteriaceae* are disconcerting because they are difficult to treat with third and fourth generations of Beta-lactam antibiotics such as cephalosporin and other relatives of methicillin and penicillin.

"[KPC] is particularly troubling because it often is associated with urinary tract infections, wound infections, ventilator-associated pneumonias or respiratory infections," Sehulster says, adding that these types of infections account for 15 percent or more of all HAIs.

The good news in this situation, Sehulster says, is that evidence developed to date shows that hospital ES teams don't need to do anything appreciably different from following CDC recommendations for cleaning and disinfecting strategies to protect patients and staff. Sehulster says the evidence indicates that the extended spectrum of antibiotic resistance is a phenomenon that is largely independent of a bacterium's ability to resist inactivation via disinfectants. The latter is influenced more by the structural features and surface biochemistry of bacteria and, more often than not, antibiotic resistance is a phenomenon associated with metabolic processes using enzymes. In short, she says, we do not need more powerful disinfectants at this time.

"We might take some steps to ensure cleaning effectiveness with some of the technology that is available. We may do more observation and follow-up to make sure that cleaning and disinfecting are done, but we're not changing what we're doing. We're just doing more of it," Sehulster says. **HFM**

Bob Kehoe is associate publisher of *Health Facilities Management.*

NEW CDC TOOLS EVALUATE CLEANING OF ENVIRONMENT

The Centers for Disease Control and Prevention recently posted a series of online tools to help hospitals evaluate options for environmental cleaning.

The toolkit includes a white paper by Alice Guh, M.D., MPH, and Philip Carling, M.D., entitled "Options for Evaluating Environmental Cleaning" as well as an environmental checklist for monitoring terminal cleaning and a spreadsheet for monitoring terminal cleaning activities in high-touch areas.

The white paper focuses on elements of Level I and Level II cleaning programs, elements of educational intervention and objective methods for evaluating environmental hygiene.

All of the tools can be downloaded at **www.cdc.gov/HAI/toolkits/Evaluating-Environmental-Cleaning.html**. ■

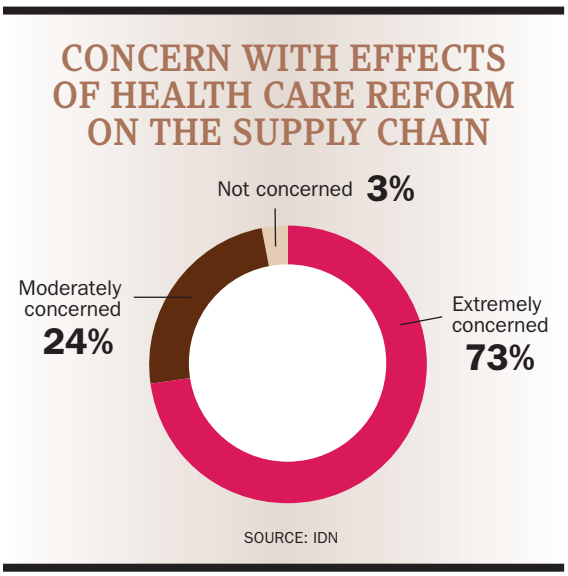
TRANSFORMING PURCHASING

Expect sharp focus on comparative effectiveness

BY BOB KEHOE

It may be the least talked about result of health care reform, but the supply chain will undergo a serious transformation. Materials managers, logistics professionals, group purchasing organizations and manufacturers all will be more accountable for their roles in reducing costs and supporting more efficient, safer and higher-quality care. Many experts believe this trend will continue into 2011 and beyond regardless of whether Republicans make good on their promises to repeal or otherwise derail the reform bill.

"The way in which health-care purchasing decisions are evaluated and even how health care is going to be delivered in the United States is evolving, and supply chain has a major role in this transformation. And like it or not, comparative effectiveness and value-based purchasing are part of the new equation," says Ray Moore, CMRP, MBA, system contract manager at PeaceHealth, Bellevue, Wash.



Evidence-based supply chain

Moore, who also serves as board president for the Association for Healthcare Resource & Materials Management, argues that materials managers and their colleagues now are expected to employ "evidence-based supply chain" practices in the same way that physicians are expected to follow the tenets of evidence-based medicine.

"Supply chain is increasingly being looked to as more than just the folks who reduce cost for products and services. More and more [they're looked at] as a strategic patient-care function, from streamlining care-related logistical processes to related data management and utilization-opportunities analyses," Moore says.

Group purchasing organizations, which historically have been recognized primarily for the cost savings they can leverage on behalf of hospitals, see the shift as well.

Mike Alkire, president of Premier Purchasing Partners, an alliance of more than 2,400 nonprofit hospitals and 70,000 nonacute sites, says members are looking far beyond the dollars and cents of supply costs. They're closely examining population-based care delivery models and clinical integration across the spectrum of care.

From a supply chain perspective, Alkire says members are paying closer attention to drug and implant utilization, particularly in the nonacute setting.

"We've enhanced our focus on the nonacute setting. As reform continues to evolve and move toward more of a population-based setting, more and more care will be delivered outside the four walls of the hospital," Alkire explains.

Cost-cutting initiatives

Like some other GPOs, Premier is focusing on delivering new tools that will help its members deal with the many changes reform will bring.

"Our board has asked us to focus on diagnostic tools to help the membership understand and anticipate the impact of health care reform," Alkire says.

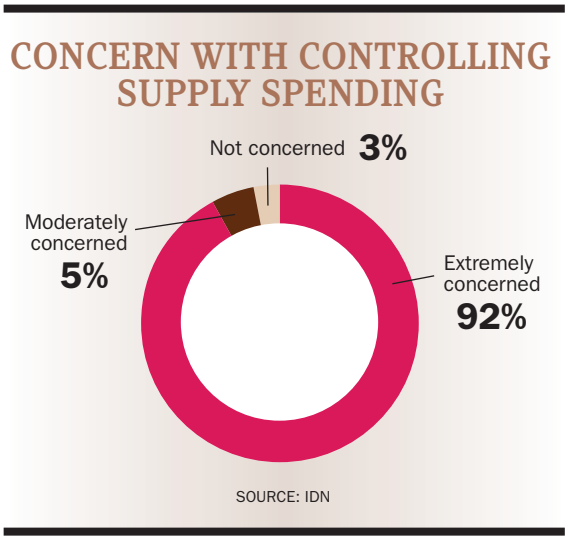
Some of the tools Premier is delivering focus on such issues as reducing unnecessary readmissions and reducing health care-associated infections (HAIs). Through reform, hospitals will face additional reductions in Medicare payment for these types of harm.

Randy Walter, executive vice president of enterprise solutions and marketing at Amerinet, says while he also sees a clinical shift in focus among many supply chain leaders, this change is being brought about because of the need to drive down costs further.

"A lot of hospitals feel as though they are going to have to start operating at almost Medicare-reimbursement costs or less across the board. And if they can do that, they have a fighting chance to survive. So that's driving a lot of initiatives on the commodities side as well as the implant side and physician preference items," Walter says.

Nik Fincher, vice president of purchased services and capital for VHA, says the reform bill will lead more hospitals to tap into GPOs for their consultant's knowledge and the GPO members' expertise on more sophisticated ways to reduce costs.

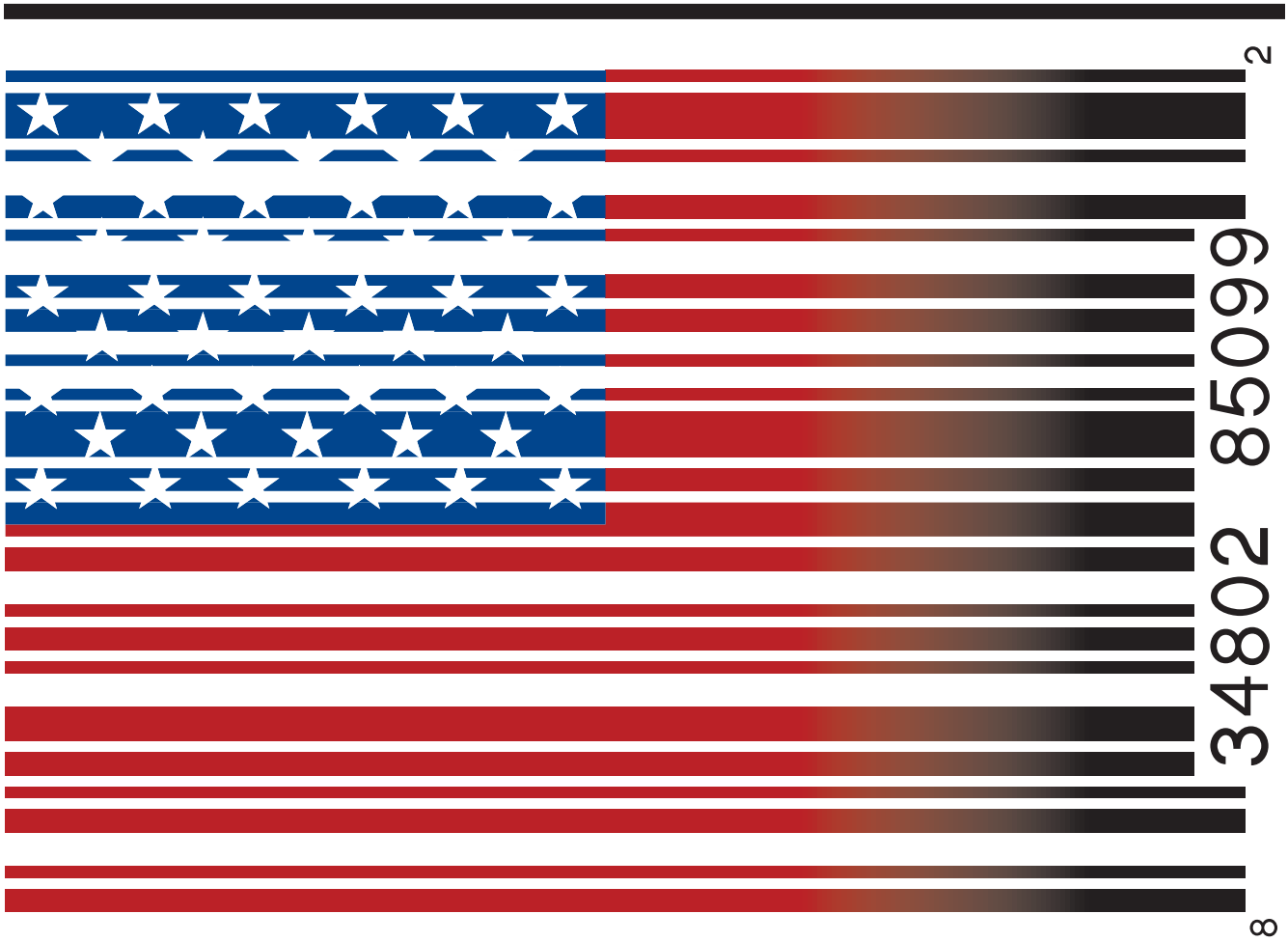
"Our largest customers are coming to us and saying, 'Can you tap your sources of data and help us benchmark [costs] and then see if there are opportunities to help us create programs that take advantage of these opportunities?'" Fincher says.



GPOs measure up

Survey data published in July by our sister magazine, *Hospitals & Health Networks,* underscore just how much hospitals rely on their GPOs to help them cut costs and the extent to which GPOs deliver value. Among the findings: Seven of 10 respondents reported GPO-attributed savings of 5 percent or more on their supply purchases, while one in four reported GPO savings of more than 11 percent.

The survey data also reinforced that hospitals work with their GPOs on issues far beyond simply reducing supply costs.



iSTOCKPHOTO / © MICHAEL MARSCHKE

COMMODITIES PRICING UPDATE

Raw materials in this graphic drive the prices of key medical products ranging from gloves to gowns to bedpans. Not surprisingly, petroleum-based products have perhaps the largest impact on pricing. The brief synopses accompanying the photos shed light on some of the most significant shifts in commodities pricing in 2010 and projections for 2011.

RUBBER

Rubber prices bounce back After sagging in the fourth quarter in 2008, natural rubber and latex prices have rebounded sharply over the past couple of years, according to data from the Malaysian Rubber Exchange. Short supplies and increased demand are key contributing factors, according to Premier.

COTTON

Cotton is king—again From reusable textiles to bandages, hospitals can expect to pay more for commonly purchased products containing cotton. That's because cotton prices have been soaring. Between October 2009 and October 2010, cotton prices more than doubled, according to the National Cotton Council.

For instance, more than 80 percent of respondents said safety and quality programs offered by GPOs are an important factor in their selection of a GPO. Meanwhile, more than two of three respondents (68 percent) said the ability of a GPO to help them benchmark clinical improvements was an important factor in GPO selection. Meanwhile, more than half (53 percent) considered consulting services on such physician preference items as implantable orthopedic, spinal and cardiac devices an important factor in their selection of a GPO.

Similarly, respondents generally expressed high satisfaction rates for their GPOs in such areas as pricing/savings (89 percent satisfied or very satisfied), contract data management (86 percent satisfied or very satisfied) and customer service/rapid-response time (78 percent satisfied or very satisfied).

Still, hospitals need to develop even tighter relationships with their GPOs going forward as various parts of the reform bill take effect over the next five years, experts suggest. Many hospitals clearly see this period as a major challenge.

Concerns on the horizon

A survey conducted earlier this year for the Integrated Delivery Network (IDN) Summit and Expo found that nearly three of four (73 percent) of the 200 senior health care supply chain professionals polled were extremely concerned about the potential effects of reform. The respondents typically represent IDNs and health systems with more than 500 beds. Just under half the respondents felt the reform bill will have a net-negative effect on the health care supply chain.

Much of the concern about the impact of the bill centers around reduced payments to hospitals, which could well cause materials managers to have to leverage still lower prices for supplies to make up for some of the difference. One of the most significant cuts hospitals face is a $150 billion-plus cut over 10 years in Medicare payments. Also, nearly all providers will be subject to pay for performance under Medicare and Medicaid, under which a portion of payment is withheld and providers can earn back full reimbursement by showing high levels of improvement in scores on measures of clinical quality and patient satisfaction.

Among the areas of the reform bill about which IDN Summit respondents described themselves as extremely concerned are:

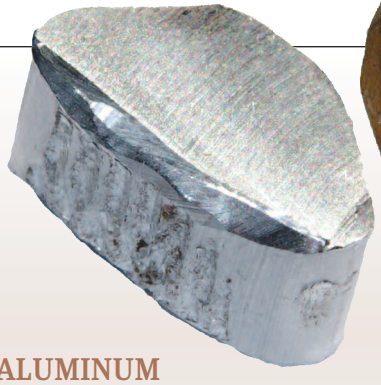
- the long-term impact of commercial payer contract strategies (62 percent);
- payment reductions for preventable readmissions (55 percent);

STEEL

Steel is almost a steal After price declines in the first half of 2010, steel prices have risen only modestly in the third quarter. Novation's July 2010 Budget Impact Projections Report noted that the World Steel Association expects steel prices to rise 5.3 percent in 2011.

OIL

Oil pricing fluid The oil market impacts transportation costs and is a key driver of prices for commodities such as plastic resins. Thus, Premier reports, it has a significant influence on many products hospitals buy. Experts are split on whether prices will rise or fall significantly in the coming year. Much depends on global economic recovery and oil supply, which is controlled by OPEC.



ALUMINUM

COPPER

NICKEL

Aluminum, copper and nickel These metals, often used in hospital construction projects, have experienced generally rising prices over the past year. Increased strength of the U.S. dollar, a slow economic recovery and lower demand from Asian countries slowed the pace of growth in prices in 2010, Novation reports. It says that experts anticipate prices for these nonferrous metals will continue to rise in 2011.

• payment reductions for HAIs (54 percent);

• pay for performance under Medicare and Medicaid (53 percent).

Respondents apparently didn't miss a small section tucked more than 700 pages deep in the bill that calls for a 2.3 percent excise tax on the sale of medical devices by the manufacturer or importer. Nearly two-thirds of the respondents (63 percent) are extremely concerned about the prospects of that tax being passed on to hospitals in the form of higher prices for medical devices. Premier's Alkire shares that concern.

"We're very keen on making sure that hospitals don't pick up that [excise tax cost]," Alkire says. "What our nation's hospitals cannot afford is another $100 billion [in costs] on top of cuts projected under reform. My board and my CEO shareholder committees have been very direct with me about working to ensure that members don't have to foot that bill as well."

Price forecasts

Outside of these major concerns, hospitals shouldn't have too much to worry about in the form of significantly higher supply prices in 2011, particularly since most GPO contracts already have specified pricing for next year. However, the GPOs with whom we spoke for this story noted concerns about some rising commodity prices for raw goods frequently used in medical supplies and hospital construction.

Cotton prices, for example, more than doubled during the 12 months prior to October 2010. Metals prices for copper, aluminum and nickel also have risen, though far less dramatically.

VHA's Fincher says with hospital construction rebounding considerably in some markets in 2010 and with the forecast for 2011 generally looking stronger than 2010, construction materials prices may rise further.

"With Obama financing the rebuilding of America's infrastructure through the stimulus package, some of the prices of materials that are being used in health care facilities such as concrete, steel and copper, are up across the board," Fincher says. "We haven't seen any huge escalation in prices, but we see less willingness among vendors or suppliers to do the deep discounting they were in 2009."

Fincher also notes that among hospitals that have resumed building, there seems to be more emphasis on sustainability and energy efficiency in building design. **HFM**

Bob Kehoe is the associate publisher of *Health Facilities Management*.