

# Occupational Health Management™

*A monthly advisory for occupational health programs*

## IN THIS ISSUE

### Shopping for software? Consider workflow, training before buying

A proliferation of vendors and heated competition have led to a greater range of choices for occupational health clinic managers when it comes to selecting practice management software. While most programs will fulfill basic needs such as billing and scheduling, the ‘bells and whistles’ offered by different firms are what distinguish one program from another — along with pricing structure. All of this means a greater likelihood that there will be a good ‘fit’ between clinic and vendor. In an accompanying story, two managers detail the search process that led them to their respective choices, and how their programs have performed after installation . . . . . Cover

### Rehab center’s teleconferencing project addresses challenge of shorter stays

Reduced lengths of stay for patients, even some who have suffered traumatic injuries, are placing an added burden on rehabilitation facilities across the country. Not only are their patients sicker when they are admitted, but the centers themselves are forced to reduce lengths of stay, reducing the amount of time available for critical educational and psychological programs. The

*Continued on next page*

**OCTOBER 2001**  
VOL. 11, NO. 10 (pages 109-120)  
NOW AVAILABLE ON-LINE!  
[www.ahcpub.com/online.html](http://www.ahcpub.com/online.html)

For more information, call: (800) 688-2421

## Shopping for software? Consider workflow, training before buying

*Proliferation of vendors boosts odds for a good fit*

**I**t’s difficult to imagine successfully running an occupational medicine clinic in today’s environment without the aid of a practice management (P-M) software system.

Systems currently on the market handle everything from billing to medical surveillance, from scheduling to Occupational Safety and Health Administration (OSHA) compliance. Costs vary as well, from \$2,500 to literally tens of thousands of dollars.

With so many choices available, how can occupational health managers be sure they are selecting the most appropriate system for their facility? *Occupational Health Management* canvassed both vendors and users for the answers.

### *All things to all people?*

Most observers say that you can’t have it all with any one system. The people who created these programs, they note, come from specific disciplines and therefore have distinct areas of expertise that is reflected in their software.

“All systems have strengths and weaknesses,” notes **Steven C. Schumann**, MD, founder of The Stolas Group Inc., in Fresno, CA. “The applications tend to track to some degree the expertise of the developers. I had an occ-med practice for many years, so the kinds of things that were important to me in my practice tend to be important in StolaSystem software.”

“To an extent, it’s true that you can’t do it all,” adds

*Continued from cover page*

University of Alabama at Birmingham Spain Rehabilitation Center addresses this problem with a teleconferencing project, which enables some of the sickest patients — and their family caregivers — to receive the services from home . 114

**Think you're safe from cardiac arrest in a hospital? Think again**

Thought your employees were safe from the threat of sudden cardiac arrest (SCA) because they worked in a hospital? Think again; the response time, critical in SCA cases, can often be too long even in the hospital environment. But The Miriam Hospital in Providence, RI, found a way to make employees and patients less vulnerable to SCA by installing 22 Automated External Defibrillators on its campus. Since putting these devices in place, the average response time has been cut from 10 minutes to two . . . . . 115

**Survey shows no drop in wellness programs, despite slowing economy**

It seems like employers have finally gotten the message: Wellness and disease management programs *save* money. In the face of an economic slowdown and tighter budgets, America's employers have actually increased their commitment to medical management programming, according to a recent survey by Hewitt Associates. . . . . 117

**Workplace drug use up after a decade of decline**

In a survey taken semiannually since 1998 by diagnostic testing firm Quest Diagnostics, U.S. workers for the first time in a decade have shown an increase in drug use. Use among federally mandated workers actually declined, indicating that virtually all of the increases came in the group of workers who are randomly tested . . . . . 118

**COMING IN FUTURE ISSUES**

- The importance of self-care in an occupational health program
- NCQA unveils new draft standards for accreditation of disease management programs
- Coding and reimbursement procedures for occupational health
- Wellness programming: Making the most of a limited budget
- Work-based benefits for retirees appear to be on the decline

**Joe Fanucchi**, MD, FACOEM, president and director of development for MediTrax, based in Alamo, CA. “Realistically, there is a range of services and functions that most outpatient facilities want and need. These include accurate documentation and tracking of services they provide; accurate and reliable billing and [accounts receivable]; and thorough reporting for the jurisdiction they are in — for example, workers’ comp. You *can* have a very good basic package.”

That opinion is not universally shared, however. “I think our system *does* provide it all,” asserts **Mary Price**, president of Monterey, CA-based Integritas, Inc., which makes the STIX system. “What’s different is that systems approach things differently. So, for example, we came to this endeavor with a business accounting background. We have a high concern for our clients being able to pass a financial audit; there is a very robust trail [of data].”

**Knowing the players**

The key players in this market are known by their size, their unique system benefits, or some combination of the two. Most agree that the industry leaders are the three “S’s”: SYSTOC, which is provided by Skowhegan, ME-based Occupational Health Research (OHR), STIX, and Stolas.

“We tend to compete among ourselves for most of the large pieces of business,” says Schumann. “Several other [leaders] are smaller companies like [Occupational Health Manager (OHM)] and MediTrax. Pricing [for the larger system providers] tends to exclude the single practices. STIX has a version that runs on a smaller database, a less expensive ‘lite’ version. SYSTOC and Stolas require larger databases.”

What distinguishes Schumann’s system? “Our group module as well as our occupational health module, our Internet connection, and remote access — a web-based ability to see some restricted patient and claims submission data,” says Schumann.

The clinic manager establishes the kinds of data he or she wishes to be accessed, Schumann explains. “So you don’t always have to call the clinic to get information on a patient for whom you are responsible — and it’s a secure system,” he says. “It’s attractive to managers of programs. It not only cuts down on calls, but tends to reinforce relationships.”

Electronic claims submission is also in place

and working, he notes. “We find many users are hospital systems that also do urgent care,” he notes. “The ability to add occ-med into urgent care seems very attractive.” Reinforcing the notion that not all systems are created equal, Schumann concedes that “ours is recognized as not being as strong in employee health compared, for example, to STIX.”

Price, however, prefers to emphasize her system’s accounting control. “You can go in any time and know what’s been billed, what’s not, and do a transaction by transaction audit. You can’t do that with other systems,” she asserts.

“We’re also very strong on the clinical record — not only standard P-M billing and scheduling, but we have a clinical problems list with very robust medical surveillance capabilities,” Price adds. “Users can look at clinical results — not just whether a hearing test was conducted or lab values were run, but they can capture the clinical results as well. You can then determine that your population has a problem with, say, chronic back pain.”

On the injury side, Price claims to have a very strong case management function. “The other big thing we have I don’t think the others have is a whole safety component,” she observes. “Our clients can track safety data, and do an OSHA log over our system.”

“Ours is a text-based system,” Fanucchi notes. “The first two [P-M] programs were SYSTOC and ours. But they are at the high end of product pricing; we are at the low end. Once we were up at \$20,000, which I said was ridiculous. I’ve seen people paying \$50,000, \$60,000, \$80,000, or even more than that for packages that don’t do what they claim. We now charge \$8,000, including on-site training.”

His system does not do case management, “but it hopefully provides data support for a trained professional who does,” he says. “Some software vendors say you can click a button and see how much you can save vs. the clinic down the street, but that’s a fraudulent claim.”

Fanucchi described his system as “an intuitive, menu-based system that follows the work flow. This can be a weakness if you want to do sophisticated data crunching. We don’t have automated interfaces to spreadsheets, or some features that are available in programs like SYSTOC, such as the ability to store pulmonary function flow volume loops, or automated interfaces to a lot of electronic machinery.”

MediTrax has “a fairly sophisticated accounting

system,” where each injury and each employer have an account, and the report is manageable by an individual worker, visit, or service, Fanucchi says. It also provides case management support. “We *don’t* track indoor air radon on a day when the wind is five mph outside,” he concedes, a bit tongue-in-cheek. “We don’t do indoor hygiene tracking or accident tracking functions. KNORR Datapipe does that.”

Despite distinguishing systems features, “All of us are coming closer together, even though we started out from different places,” says Schumann. “I think we will all come even closer, but we will never become concentric circles.”

### ***Making the decision***

With so many options available, the P-M software decision can be a difficult one. Budgetary considerations are a given, but Fanucchi warns you shouldn’t make too strong a connection between cost and value. “We had exactly the same software one year [priced at] \$7,000 and when we kicked it up to \$20,000, interest skyrocketed,” he recalls. “The more it costs, the more some people perceive it is worth. That’s frustrating to me.”

What other factors should occupational health managers consider? “You have to decide what your priorities are,” says Schumann. “Are they clinical and operational, or back-office reporting and number crunching? Are you interested in lower upfront cost, or lower maintenance costs?”

In other words, look at your specific needs. “Also, clients will tend to appreciate different chemistries with different companies,” Schumann notes. “Personalities definitely come into sales.”

“The biggest factor is the reputation of the vendor,” says Price. “Then, what you really want to think about is if there’s a certain style and approach to running your practice. There are people who look at one particular system and say, ‘Oh my God, it works just the way we do!’”

When interviewing vendors, don’t just ask them what their turn around time is, but how many open, unresolved calls they have at end of the week, Price advises. And ask if they will consult on work flow.

Finally, she says, ask if a warranty is provided “It’s fine to buy an \$8,000 program, but if there are no warranties why would you do that?” she asks.

The potential buyer should also be wary of flashy demos. “If OHM could really do everything they say they can do — they have a *magnificent-looking* demo — and do it without you ever

getting lost in multiple windows, the rest of us would be out of business," says Fanucchi.

"I think demos give users a psychological comfort, and they're valuable from that sense," says Price. "But their actual operation may be different than what you're looking at. It doesn't matter whose system you buy; listen to what the vendor tells you about setting up and using it."

### ***Don't judge quickly***

Once the system is up and running, how do you determine if you've really made the right decision?

"You should run the system six to eight months," says Price. "I don't care whose system you put in, it will take time for the user to work the kinks out. Almost nobody is willing to pay for work flow consulting, and I think that's a *huge* mistake. A lot of people think they will put the software in and it will automatically solve everything. The P-M system is the backbone of your operation, but some of your problems may be work flow problems, not software problems."

The other big mistake she sees people make is that they don't budget for turnover and retraining of their staff. "That's our biggest problem with clients; they don't budget, and over the years if people are not properly trained, the system will not pay off the way it could." Finally, Price advises, "Check how often you are getting updates, and how quickly your issues get resolved."

How should vendors respond to the need for system modification? "It depends," says Schumann. "We all respond, but we tend to stay away from any more customization than is needed because we have to support it, and we all bring out new versions once a year or so; and when you upgrade you have to be sure what you do doesn't influence that customized work. The point is you want to be as broad and as deep as possible."

The need for a change, if there is one, will be readily apparent, he says. "If you find at some point your needs are progressively less well-met, then you will begin to look at competing systems," he says. "But the five-year cost of any of the top systems is probably \$100,000, so you just don't make changes on the spur of the moment." SYS-TOC tends to lease its system, while STIX and Stolas offer only sales, he adds. **(How does the selection process look from the clinic's point of view? See related story on p. 113.)**

The rapidly changing world of technology will dictate the future evolution of P-M systems, say

observers. "We are affected by what Bill Gates and the others are doing," says Schumann. "That will improve what we can deliver every year, but every year the systems become more complex, and may be harder for the user."

That's a significant concern, he emphasizes, because of the growing role of the clinic and its staff in the use of these systems. "When we first began, we installed the software and maintained the whole thing," he recalls. "You just can't do that now; it has to be managed at the clinic level."

### ***Complicated systems need support***

The original systems were all DOS applications, he notes. "Back then, your teen-age son could install the network," he says.

"With Windows, that's not the case. Everyone has 2000 or NT [versions], and now XP is coming. The requirement for technical support is a good deal greater; in fact, it tends to drive or influence the decisions users make about system selection."

Because of the advanced technology, vendors today need to have solutions to database management and network administration problems, Schumann notes.

"Also, with voice recognition and palm technology, there are imaging issues," he observes. "So you have to consider the technical support a company can offer, and a lot also falls on the clinic to find its own support, for example, in network administration."

"We are working towards having more collaborative information-sharing with employers and insurance organizations," Price reports. "Companies are looking to eliminate some of their redundant data entry — streamlining operations so providers can bring their AR days down."

*[For more information, contact:*

• **Mary Price**, President, *Integritas Inc.*, Suite 112, 2600 Garden Road, Monterey, CA 94930. Telephone: (831) 667-2266. Fax: (831) 657-2000. Web: [www.integritas.com](http://www.integritas.com).

• **Steven C. Schumann**, MD, *The Stolas Group Inc.*, 6061 N. Fresno St., Suite 104, Fresno, CA 93710. Telephone: (559) 431-9450. Web: [www.stolas.com](http://www.stolas.com).

• **Joe Fanucchi**, MD, *FACOEM*, President and Director of Development, *MediTrax*, 943 Ina Drive, Alamo, CA 94507 Telephone: (800) 626-4701. E-mail: [drjoe@meditrax.com](mailto:drjoe@meditrax.com). Web: [www.meditrax.com](http://www.meditrax.com).] ■

# Users share details of selection process

## *A tale of two searches*

Every facility is different and brings unique needs to its search for the right practice management software. Nevertheless, a look at how two users arrived at their decisions provides valuable insight into the search process.

“We began our search about four months ago,” says **Bo Brannon**, executive director of Occupational Health Solutions, an affiliate of the Osteopathic Health System in Fort Worth, TX. “We decided to do it because of our growth. We have two full-service clinics and one drug screening collection facility. We were tied into the hospital clinic billing software and doing our own billing and collections, and their software certainly is not meant for workers’ comp and occ-med.”

Brannon says he looked at the three S’s: STIX, Stolas, and SYSTOC. “We didn’t have any preconceived ideas,” he asserts. “I had a list of questions I compiled myself — the most important of which was the following: Our protocol system is manual and makes sense to us. What software best duplicates our system, so it will make sense to our staff?”

Ultimately, he picked STIX. “All of the systems probably cost about same,” he notes. “We had a committee meeting that included billing, marketing and front-office people. Since we are protocol-driven, they were concerned about which system best fit our protocols.”

## *Ease of use a plus*

The new system is working far better than the old one, Brannon says. “The flexibility of STIX fits perfectly for us, being a multiple-base system but all in one geographic area.”

The protocols tie into the billing in a way that makes the process much less labor-intensive, Brannon notes. “If you have it set up the way they design it, it just flows in so you spend much more time collecting than billing, which you need to do in health care today,” he explains. “You click one button and that bill’s already in the system. You bring the patient in the front door, he goes out the back door, and the bill can just follow him with virtually no manual work at all. It’s all pre-set,

whether you want a drug or alcohol screening, a physical exam, a back test, or a pulmonary function test. You put the patient’s demographic information in and it’s done. If you do all those services, you just click a ‘complete’ button. Then the information just sits in the database waiting for you to demand the bill, which comes out itemized.”

If the billing office is not sitting around re-entering those charges, they can be looking at outstanding balances and working the phones, says Brannon. “I want them to be able to make phone calls every day to make sure everyone’s current — or know why they’re not,” he asserts. “With a larger facility, you could even have less staff in your billing office.”

Client companies are provided with a password. They can log onto the Internet and look at their protocols to ensure they are current, Brannon says.

“We can download drug screening information to them; they can look in and see who’s been in, and what the balances are on a day-to-day basis. It’s very client friendly.”

Brannon also appreciates the fact that he can add new service modules as his organization grows. “They were also professionals,” he observes. “I’m not a huge player, but I dealt with the president, and the vice president of technology worked with my [information systems] guy to find the best way for us to set up the system.”

The price of the system doesn’t bother Brannon at all. “We will make back our investment through improved collections,” he asserts.

## *Staying with a proven commodity*

For **Pam Hulsey**, manager of WorkWell, an occupational medicine clinic in Hardin Memorial Hospital in Elizabethtown, KY, the recent purchase of a P-M system meant staying with a company she knew and trusted: MediTrax.

“My first search was about 10 years ago,” she recalls. “We needed something to do all of our registration, all of our billing, and enable us to track injuries as far as restrictions.”

She has been at WorkWell for about two and a half years. “The previous facility was a freestanding clinic, and this is a hospital-based one,” she notes. “After being in a freestanding clinic and having control over our own billing, I wanted to be sure we would still have control and provide answers for our clients. I didn’t want to be telling them to call the billing office and not know what was going on there — what the AR is, who’s paying you and who isn’t. With

MediTrax you know all that.”

Cost was also a consideration, she says. “It was a very affordable program — actually it has come down in cost,” says Hulsey. “The other business I was with had five different clinics at one time, and no real networking capabilities; so we bought the system five times over. At that time we were paying \$13,000 for the programs; now, it’s about \$8,000.”

She does pay an annual support fee, which entitles her to all program updates. “You just go to their web page and download them,” she explains. “If you have a little bit of computer knowledge you can do it yourself; you don’t have to wait for MIS [Management Information Systems].”

Hulsey has never felt the need to go with one of the big three. “I’ve seen one of the ‘Big S’s’ in one clinic we are affiliated with,” she notes. “There was something in particular about how the program was written, and the MIS department said, ‘You have to go with this,’ but compared to what we have, they are very, very similar. The big difference is that MediTrax does not have an appointment schedule on it, and the other ones do. But as far as

protocols for specific companies, billing, posting checks and the other basics you need to have software perform, it was able to do everything.”

Hulsey says she “can’t imagine” an occupational medicine clinic not having a practice management software program. “Even if you only treat your own employees, you may not bill, you but can still set up the system to track charges indirectly, and show your employer that you saved ‘\$X’ by providing physicals, drugs screenings, and so on, vs. having them sent out.”

For Hulsey, her system is an integral part of her clinic’s everyday life. “When we come in [in the morning] it’s up and running, and it goes all day long,” she concludes.

*[For more information, contact:*

• **Bo Brannon**, Executive Director, Osteopathic Health Systems of Texas, 1916 N. Beach, Fort Worth, TX 76111-6703. Telephone: (817) 759-0387. Fax: (817) 377-0827.

• **Pam Hulsey**, Manager, WorkWell, Hardin Memorial Hospital, 110 Layman Lane, Elizabethtown, KY 42701. Telephone: (270) 706-5625. ■

## Rehab center solves the problem of shorter stays

*Teleconferencing project helps fill the void*

Shorter hospital stays have created a new challenge for rehabilitation facilities, forcing them to find creative ways to provide their services in the allotted time. The UAB (University of Alabama at Birmingham) Spain Rehabilitation Center did just that, with a home-teleconferencing project, “information days” for patients and family caregivers, and other new initiatives.

Using a computer, modem, and video conferencing, patients and caregivers stay in contact with Spain via TV, allowing them to address many issues that were traditionally addressed during their inpatient stay: psychological issues, issues of family care, and the many “what ifs” that come up when home care is being provided. “Telemedicine is an effective way to continue our care,” says **Amie Jackson**, MD, director of the UAB Spain Rehabilitation Center.

There are several challenges presented by shorter hospital stays, says Jackson. “For one thing, there’s the shorter acute hospitalization, where [diagnosis related groupings] and pressures

from insurance companies generally allow somebody who just had a stroke or an accident to be in an acute setting for much less time than usual,” she observes.

### *Sicker patients, more constraints*

“We get the patients faster; they come into rehab just when they’re getting over the main event. Even though they’re stable, they may not quite be ready for an intense rehab program. In the past, the program could be handled more gradually, and only when the patient was able to fully participate.”

What’s worse, she says, not only are patients sicker when they arrive for rehab, but similar constraints are placed on the centers themselves. “Once we get them, we can’t keep them as long, either,” asserts Jackson. “Patients get the short end both ways. Many times we just have the capacity to get them into physical therapy, assessment and nutrition while we’re still battling pneumonia, blood clots, and other acute things that can occur. And some patients have to learn to deal with permanent disabilities, which introduces psychological factors and other medical issues. We used to deal with all of that during their stay, but now we don’t have the time to deal with it adequately.”

With home care beginning sooner and lasting longer, the home teleconferencing project just made sense, says Jackson. "When patients leave us, they go to the home setting. Some of them leave with disabilities that require a significant amount of education and psychological support, and that contact with the health care clinician is sacrificed by their having to leave early. When I was a resident in the 1980s, we kept some patients six months after a spinal cord injury or a stroke. We dealt with the family, and with issues like community re-entry. Now, all that's gone."

### ***Issues haven't gone away***

The issues, however, have *not* gone away. To Jackson, teleconferencing would allow those important issues to be addressed while the patients were at home. "We tried to think of how we could physically accomplish this," she recalls. "We had to be creative because not all patients have computers. We've gotten some help from the local telephone provider, and some equipment was donated at cost. We have also gotten grant funding from the state and federal governments." Insurance, she notes, does not cover such services.

Because there are limits as to how many patients can be served, diagnosis-specific treatment is currently offered. "We deal with spinal cord injury, a few stroke patients, and traumatic brain injury," says Jackson. Scheduling depends on the patients.

Jackson got her first grant about four years ago, and the project was in place a year later.

### ***Evaluating the program***

Jackson and her staff conduct regular assessments of the program. "We want to know whether it's helpful to the caregivers, in terms of stress and depression. We conduct an initial assessment, and then once a year later," she says. "We also assess whether those patients who receive the home teleconferencing find it beneficial, and whether after one year they have suffered fewer complications, such as: Were they in the hospital more? Did they have more secondary problems?"

The response to the program has been overwhelmingly positive. "The patients all felt it was very helpful to have that connection, but the family caregivers especially appreciated it because they had that link that really helped allay their fears of not doing everything right for their loved

ones. All of the data so far show the program has been very beneficial," Jackson reports.

There are other initiatives under way at the Spain center to help offset the disadvantages of shortened stays. For example, in July they held their first after-center information day. It consisted of focus groups dealing with traumatic brain injury and spinal cord injury, with physicians and psychologists running the programs. Each program began with a short presentation and then a question-and-answer session.

"The sessions were well-attended and a lot of people asked questions," says Jackson. "More are being planned."

The center also has several web sites that patients can use to get their questions answered. Patients can log in from all over the country. "We have a grant set up for patients to go through different diagnoses," says Jackson. "The first is for spinal cord injury. It will be a series of educational presentations almost like Power Point. The patient logs on and reads text on the consumer level about a specific problem they have. It will provide a lot of the education they used to get in the hospital."

*[For more information, contact:*

• **Amie Jackson, MD**, director, Spain Rehabilitation Center, 1717 Sixth Ave. S., UAB, Birmingham, AL 35233. Telephone: (205) 934-3330.] ■

## **Think you're safe from cardiac arrest in a hospital? Think again**

*Response times reduced from 10 minutes to two*

**Y**our employees probably think they're much safer and closer to medical assistance in case of emergency than employees in the corporate setting, and as a rule, of course, they're right.

However, if they (and you) assume that this rule readily applies to sudden cardiac arrest (SCA), you may be in for a rude awakening. For as one hospital in Providence, RI, discovered, there's always room for improvement — and some hospitals may be missing the boat when it comes to ensuring that employees and patients have the most effective procedures in place for these emergencies.

Ten years ago, the typical time from discovering

the victim to initial shock at The Miriam Hospital was between seven to 10 minutes; today, it's about two minutes. The difference? Today, there are 22 automated external defibrillators (AEDs) at Miriam, and every nurse on staff is trained in their use as a first responder.

### ***Are hospital setting AEDs redundant?***

The idea of AEDs on airplanes and at large public events seems like good common sense, but wouldn't they be a bit redundant in a hospital setting?

Not at all, insists **Sandy Sawyer-Silva**, RN, MSN, CCRN, nurse manager of the intensive care unit at Miriam. "An AED is, in fact, *not* redundant in a hospital — it's a first-line device for SCAs," she asserts. "It is estimated that between 85% - 90% of all sudden cardiac death is due to shockable rhythms, so the faster you can get the device to a patient and shock them, the greater the likelihood of survival."

The literature seems to bear her out. Here are just a few examples:

- Only 15% of victims of SCA in hospitals survive to be discharged, largely because lifesaving defibrillation therapy does not reach them in time.
- SCA survival rates approach 90% in coronary care units, which are typically well equipped with manual defibrillators and highly skilled operators.
- Each minute of delay between the onset of an arrest to defibrillation decreases the chance for survival by 10%.
- Defibrillation delays in hospitals can be attributed to outmoded hospital protocols that require nurses — often the first to respond to a patient in distress — to administer CPR, then call for the defibrillation team, and wait.<sup>4</sup>

"About 15 years ago, we did a time study and looked at how long it took us to deliver the first shock," recalls Sawyer-Silva. "We were stunned to find that even nurses and residents trained in advanced cardiac life support took seven to 10 minutes to get off the first shock — and this is a small hospital (242 beds) where you don't have to go very far. With AEDs, we can successfully and repeatedly get three successive shocks off in less than two minutes from the time the person is found."

The Miriam currently uses the Agilent Heartstream FR2, manufactured by Palo Alto, CA-based Agilent Technologies. "It's a new model we've had for the past six months," notes Sawyer-Silva. They are present throughout the hospital, on every medical surgical unit, in the

clinic, and in the outpatient operating room in the building across the street.

"Every nurse knows how to use them; they're very simple to use, designed, in fact, for use by nonhealth care individuals," says Sawyer-Silva. "It does everything but walk the dog."

The device is applied to patients who meet three criteria — there is no pulse, they are not breathing, and they are otherwise completely unresponsive. "Once that's established, you push the 'on-off' button," Sawyer-Silva explains. "Then, the device will tell you to attach electrodes to the patient's bare chest; diagrams on the electrodes show you where to apply them. Literally, a 10-year-old could do it. Once that's done, the AED will tell you to plug the pads into the flashing yellow lights on the device. Then it will say, 'Analyzing heart rhythm, do not touch patient.' All this takes about 15 seconds. If it detects a rhythm, it can't shock, it tells you to check the patient, who may now have a pulse. If not, you proceed with CPR. Or, the machine will say 'Shock advised, push orange button.' Immediately after the patient is shocked, the device reassesses, tells you to stand back, and will deliver up to three shocks." All the shocks, she notes, are 150 joules, rather than successively stronger. "Older devices did that, but this is more advanced technology," she explains.

All nurses who join Miriam are trained in the use of the AED as part of their orientation. In fact, all health care providers — physical and respiratory therapists, nuclear medicine technicians, and so forth — have to take health care provider CPR, which includes use of the AEDs. Anyone so trained can be a first responder.

There is no need for inservice follow-up, says Sawyer-Silva. "We did a retention study a few years ago, and nurses were able to use the device within three to six months without any additional training," she says.

### ***A 'real believer'***

Sawyer-Silva is firmly convinced the AEDs have saved many lives that might otherwise have been lost. "Each minute before arrest is recognized represents another 10% likelihood of not surviving," she notes. "So, if we're there in two minutes, that increases the likelihood of survival to 80%. I'm a real believer in this." She estimates the AEDs are applied at Miriam approximately 20 times a month.

The hospital's original AEDs were provided

by Laerdal Co., a Swedish distributor that was later acquired by Agilent. “But we looked at all the brands that are available today — and there are many,” she says. “Our team chose the Heartstream FR2 because they thought it was the simplest to use and had features they wanted. The size was right; the directions were clear; all the features were superior. We believe that simplicity absolutely reduces time to application. The less time you have to think about things, the better it is — especially in a stressful situation.”

[For more information, contact:

• **Sandy Sawyer-Silva**, RN, MSN, CCRN, *The Miriam Hospital, 164 Summit Ave., Providence, RI 02906. Telephone: (401) 793-3520.* ■

## References

1. *American Journal of Critical Care*; 1998.
2. Carruth JE, Silverman ME. Ventricular fibrillation complicating acute myocardial infarction: Reasons against the routine use of lidocaine. *Am Heart J* 1982; 104:545-50.
3. Cummin RO, et al. *Ann Emerg Med*, 1989; 18:1269-75.
4. Kaye W, et al. *Resuscitation*, 1995; 30:151-56.

## Survey: No drop seen in wellness programs!

### *Companies also increase use of medical management*

The current economic slowdown has claimed a number of casualties, but employee health promotion and management programs do not appear to be among them. That’s one of the major conclusions drawn from a recent survey by Lincolnshire, IL-based Hewitt Associates, a global management consulting and outsourcing firm specializing in human resource solutions.

Hewitt surveyed 1,020 companies. The study, “Health Promotion/Managed Health Provided by Major U.S. Employers in 2000,” showed that 92% of U.S. companies currently offer some kind of health promotion program, up from 88% in 1995. The survey’s other findings include the following:

- 71% of companies now offer employees some kind of health or lifestyle education or training, a 5% increase since 1995.
- Financial incentive and disincentive programs held steady at 40% — still up from 32% in 1995.

- 27% of companies administer health risk appraisals (HRAs).
- 74% of employers use health screenings.
- 77% of corporations offer employees special programs such as disease and medical management, flu vaccinations, well-baby/child care and prenatal care, compared with 71% in 1996.
- 71% of employers report that they are considering or already have some type of disease management initiative in place.
- The majority of employers offer disease management (77%) and wellness programs (67%) as part of their benefits design, while some companies self-administer wellness (34%) and disease management (10%) programs.

## *A maturing marketplace*

This upward trend in the face of a slowing economy runs counter to historical corporate attitudes about health management programs, which were traditionally viewed by upper management as “nice to have” as opposed to “need to have” initiatives. Why the change?

“We’re seeing the impact of a rapidly maturing marketplace,” explains Camille Haltom, MS, a Hewitt health care consultant. “A couple of years ago, employers said they were very skeptical about disease and medical management programs, but providers are much better at measuring the impact of their programs and the cost savings that might result from better medical management.”

The codrivers behind this shift are a growing body of literature and more available data on the positive impact of these programs, says Haltom. “Many companies have put programs into place within the last year, so they themselves don’t have the history,” she explains.

“But providers have a process to measure impact, and there is a more substantial body within the literature that point to financial savings.

“Health plans as well have embraced disease management and have used such programs to attract employers,” she adds.

While some wellness programs, such as smoking cessation, may take decades to demonstrate savings, disease and medical management programs have a shorter-term window for positive returns, notes Haltom. “Still, health promotion enjoys and maintains its popularity, as do prevention programs, because they have been around longer,” she notes. And, after all, “All of these programs are points along the continuum of

medical management,” she asserts.

The percentage of companies that offer HRAs, however, is surprisingly low — 27%. “Actually, that’s held steady for many years,” Haltom says. “I would observe that while employers may not put HRAs in place as stand-alone tools, they may be used as part of an integrated health management program, which may not show up in the survey. Also, the growing use of on-line services will increase the ease with which HRAs can be administered, and we may see that number jump.”

What is also significant about the survey, says Haltom, is that “it really speaks to how well third-party providers or even health plans are delivering or administering health care programs — how efficiently they are identifying people who have certain conditions.” While there has been an influx of new providers in this area, she notes, “We’ve also seen some fall by the wayside that couldn’t keep up with the need to show ROI [return on investment] and savings.”

The survey also has an important take-home message for occupational health professionals, says Haltom. “These programs integrate very nicely with disability programs,” she asserts. “This would be considered the *disability prevention* arm, if you will, as well as a program to help people get back to work sooner. This is really based on good clinical practice — helping people self-manage their conditions more effectively and efficiently, and improve their interactions with providers.”

*[Editor’s note: Additional information about the survey, “Health Promotion/Managed Health Provided by Major U.S. Employers in 2000,” may be obtained at the Hewitt web site: <http://was.hewitt.com/hewitt>.*

*Or, contact Kelly Zitlow at Hewitt Associates, 100 Half Day Road, Lincolnshire, IL 60069. Telephone: (847) 442-7662.] ■*

## Workplace drug use up after decade of decline

Reversing a 10-year downward trend, workplace drug use increased during the year 2000 according to a semiannual Drug Testing Index released by Quest Diagnostics Inc., a Teterboro, NJ-based provider of diagnostic testing and information services. Quest’s services include gene-based testing, routine medical testing, drug abuse testing,

and nonhospital-based anatomic pathology testing.

From 1988, when the survey was first conducted, through the end of 1999, the annual “positivity rate” (the proportion of positive test results to all drug tests performed by Quest Diagnostics) declined from 13.6% to 4.6% (**See the chart on p. 119.**) However, during 2000, the overall positivity rate increased slightly to 4.7%.

The Drug Testing Index summarized the results of workplace drug tests performed between January and December 2000. The Drug Testing Index looks at positivity rates among three major testing populations: federally mandated, safety-sensitive workers; the general work force; and the combined U.S. work force.

All of the increase in positivity occurred in the general U.S. workforce, which excludes federally mandated, safety-sensitive workers, such as pilots, bus and truck drivers, and workers in nuclear power plants, for whom routine drug testing is mandated by the U.S. Department of Transportation and the Nuclear Regulatory Commission. The positivity rate among federally mandated, safety-sensitive workers continued to decline in 2000 to 3.1% from 3.2% in 1999. The positivity rate for the general work force increased from 4.8% to 4.9%.

### ***Increased drug use cited***

**R.H. Barry Sample**, PhD, director of science and technology for Quest’s corporate health and wellness division, indicates that this turnaround is the direct result of an increase in drug use among workers.

“In the 13 years that we have been measuring drug use in the workplace, this is the first time we have seen an increase in the rate of positivity,” he notes. “This appears to be due to an increase in drug use among current general work force employees, mainly among employees who are subject to random on-the-job testing.”

The positivity rate for the general work force increased even more sharply in three key segments of on-the-job testing: “For cause,” which indicates reasonable suspicion; “post-accident”; and “random drug testing.” For these three categories, the rate of positivity in the general work force went up 9.1%. By contrast, the rate of positivity for these three categories *declined* 4.3% for federally mandated, safety-sensitive drug tests.

The incidence of cheating on drug tests declined during 2000, decreasing 52% from 1999, according to the Drug Testing Index. Cheating on drug tests

can involve the use of masking agents, or chemicals that are added to drug testing specimens in an attempt to defeat the process of detecting drug use. These agents include oxidizing adulterants, which include nitrites, as well as bleach and pyridinium chlorochromate. Cheating also can involve the use of “substituted” or “invalid” samples.

*[Editor’s note: For more localized workplace drug test data, visit the Quest Diagnostics web site: [www.questdiagnostics.com](http://www.questdiagnostics.com).]* ■

## Back to the drawing board

### Chao issues action plan

With the future of ergonomics regulation hanging in the balance, labor and industry representatives once again presented their arguments at three forums held in July. Labor Secretary Elaine Chao announced a “comprehensive plan” for addressing musculoskeletal disorder (MSD) injuries in September.

The statements echoed much of what was said in previous hearings on ergonomics and in the voluminous written comments the U.S. Occupational Safety and Health Administration (OSHA) used to draft its ergonomics standard. Congress rescinded that rule in March, and congressional leaders have pressured Chao to find a more acceptable alternative.

### Annual Positivity Rates 1988 – 2000

Year	Drug Positive Rate
1988	13.6%
1989	12.7%
1990	11.0%
1991	8.8%
1992	8.8%
1993	8.4%
1994	7.5%
1995	6.7%
1996	5.8%
1997	5.0%
1998	4.8%
1999	4.6%
2000	4.7%

Source: Quest Diagnostics.

However, noticeably absent from the hearings were scientific experts bolstering the need for ergonomic interventions, such as members of the National Academy of Sciences (NAS) panel that reviewed the issue. The NAS report supported the link between workplace risk factors and MSD injuries and said ergonomics can reduce the risk.

OSHA invited labor and industry to form panels of speakers, but did not invite individual speakers or a panel of scientists. While the labor panel contained a few ergonomics experts, the absence of key experts became fodder for ergonomics critics.

“The unions have chosen not to engage in that scientific debate,” says **Baruch Fellner**, a Washington, DC, attorney who represents the National Association of Manufacturers and the National Coalition on Ergonomics. “That’s very telling in my mind. In my view, they are

Occupational Health Management™ (ISSN# 1082-5339) is published monthly by American Health Consultants®, 3525 Piedmont Road, Building Six, Piedmont Center, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to Occupational Health Management™, P.O. Box 740059, Atlanta, GA 30374.

#### Subscriber Information

Customer Service: (800) 688-2421 or fax (800) 284-3291, ([customerservice@ahcpub.com](mailto:customerservice@ahcpub.com)). Hours: 8:30-6 M-Th; 8:30-4:30 F.

**Subscription rates:** U.S.A., one year (12 issues), \$435. Outside U.S., add \$30 per year, total prepaid in U.S. funds. One to nine additional copies, \$348 per year; 10 to 20 additional copies, \$261 per year. For more than 20 copies, call customer service for special arrangements. 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 \$73 each. (GST registration number R128870672.)

**Photocopying:** No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact American Health Consultants®. Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (800) 688-2421. Fax: (800) 755-3151. World Wide Web: <http://www.ahcpub.com>.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Editor: **Steve Lewis**.

Vice President/Group Publisher: **Brenda Mooney**, (404) 262-5403, ([brenda.mooney@ahcpub.com](mailto:brenda.mooney@ahcpub.com)).

Editorial Group Head: **Leslie Coplin**, (404) 262-5534, ([leslie.coplin@ahcpub.com](mailto:leslie.coplin@ahcpub.com)).

Managing Editor: **Kevin New**, (404) 262-5467, ([kevin.new@ahcpub.com](mailto:kevin.new@ahcpub.com)).

Production Editor: **Emily Palmer**.

Copyright © 2001 by American Health Consultants®. **Occupational Health Management™** is a trademark of American Health Consultants®. The trademark **Occupational Health Management™** is used herein under license. All rights reserved.

**AMERICAN HEALTH  
CONSULTANTS**  
THOMSON HEALTHCARE

#### Editorial Questions

For questions or comments, call Kevin New at (404) 262-5467.

unwilling or unable to engage in a scientific debate, and instead are relying on the same biased science they have in the past.”

However, labor representatives blasted the forums as a sham and insisted that OSHA has more than enough information to define MSDs and require ergonomics programs. In fact, it is curious that OSHA itself did not call on the NAS experts, who were charged by Congress to answer many of the same issues confronting the panel, says **Bill Borwegen**, MPH, occupational health and safety director of the Service Employees International Union in Washington, DC.

“The Republicans funded all these NAS studies. Apparently, they didn’t like the results,” says Borwegen. “Elaine Chao didn’t even invite the NAS people to present their findings. Their findings are basically that ergonomic hazards are real. These injuries are real, and we need to do something about it.”

### *What is an MSD injury?*

The first question posed by Chao was a basic one: What is an ergonomics injury? Yet overriding that discussion was a political issue that Chao must address: Can MSDs, the most common workplace injury, be adequately reduced through voluntary guidelines and education, or is a new regulatory standard necessary?

Whatever the outcome, Chao insisted that her goal would be to prevent ergonomic injuries. “We can choose to do one of two things: We can play politics, or we can protect workers,” she said at the opening of the forums in Washington, DC. “The only way we will succeed in protecting workers from ergonomics hazards is if we begin with an open mind, which I urge all participants to bring to these forums.”

OSHA panelists heard from trade associations who said their members would be financially devastated by sweeping regulation, and from worker victims who described the debilitating impact of their injuries.

**Diana Blackmon**, a health care consultant based in Oklahoma City, presented the American Hospital Association’s view that an ergonomics regulation would be extremely costly and burdensome, and that the science of ergonomics is incomplete. Instead of issuing a rule, OSHA should provide education, consultation, and product information, said Blackmon, who helps hospitals set up ergonomics programs.

### EDITORIAL ADVISORY BOARD

**Consulting Editor:**  
**William B. Patterson**,  
MD, FACOEM, MPH  
Medical Director  
Massachusetts for Occupational  
Health & Rehabilitation  
Wilmington, MA

**Judy Colby**, RN, COHN-S, CCM  
Past President  
California State Association of  
Occupational Health Nurses  
Occupational Health Specialist  
Southern California  
Orthopedic Institute  
Van Nuys, CA

**Annette B. Haag**,  
RN, BA, COHN  
Past President  
American Association of  
Occupational Health Nurses  
President  
Annette B. Haag & Associates  
Simi Valley, CA

**Virginia Lepping**,  
RN, MBA, COHN  
Executive Vice President  
Providence Occupational  
Health Services  
Granite City, IL

**Charles Prezzia**,  
MD, MPH, FRSM  
General Manager  
Health Services and  
Medical Director  
USX/US Steel Group  
Pittsburgh

**Pat Stamas**, RN, COHN  
President  
Occupational Health and Safety  
Resources  
Dover, NH

**Melissa D. Tonn**,  
MD, MBA, MPH  
President & Chief Medical Officer  
OccMD Group, P.A.  
Dallas

A single ergonomic approach won’t work, Blackmon said in her statement. “Every facility must be able to determine its own preventive strategy, giving consideration to its unique patient and employee populations.”

Yet what about employers who fail to address ergonomic injuries voluntarily? Occupational health experts urged OSHA to maintain an enforcement element in any action it takes on ergonomics.

“I think it’s time to get back to basics,” says **Kae Livsey**, RN, MPH, public policy and advocacy manager at the American Association of Occupational Health Nurses in Atlanta, who testified at the Washington, DC, forum. “The basic standard that needs to be put out is to require employers to have a safety and health standard.”

A safety and health standard could require employers to address ergonomic hazards, she notes.

Livsey also suggested that OSHA issue guidelines for various industries, and enforce ergonomics hazards under the general duty clause, which requires employers to maintain a workplace free of hazards.

“How in your wildest imagination can you imagine OSHA would take a general duty clause approach to ergonomics?” asks Borwegen, noting that general duty cases can be tied up in appeals. “It doesn’t have the staff; it doesn’t have the inclination. It doesn’t have the will.” ■