THE QUALITY LETTER for Healthcare Leaders®

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On the Record...

On why the idea of data extraction was considered to improve quality

"We wanted [the data] to tell us how we were doing, and then use that [information] as a targeting tool—to identify our areas that needed improvement so we could strategically deploy our resources."

John Byrnes, MD,
Senior Vice President of Quality
Spectrum Health
Grand Rapids, MI

On using data for predictive modeling to determine where healthcare resources should be allocated

"The key is predicting before people ever get sick. To do that, we have extraordinary assets within the data that allows us to do that."

Jonathan Lord, MD
Senior Vice President and
Chief Innovation Officer
Humana, Inc.
Louisville, KY

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Putting Existing Data to Work to Improve Quality Care

In the healthcare environment, it's data, data everywhere. There are financial data, insurance data, employee data, clinical data, and so on. But when a healthcare organization wants more data on how it can improve quality care, does that mean it has to add more hardware, software, and personnel to monitor and analyze all the new data? Not necessarily. Some healthcare organizations are finding that they can use the data they already have—with a little help—to tell them how they are doing, how they can improve, and what they can anticipate.

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Transforming Healthcare: IOM Panel Discusses Vision And Reality After *Crossing the Quality Chasm*

Almost 3 years ago, the Institute of Medicine (IOM) released its pivotal report, *Crossing the Quality Chasm*, which challenged the healthcare community to reevaluate and reinvent the way it provides care. In January, the IOM hosted an invitational summit in Washington, DC to look at whether that vision is becoming a reality across the country and in local communities. The summit focused on five priority areas: asthma, chronic heart failure, major depression, diabetes, and pain control in advanced cancer.

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Premier Announces Winners of Its "Cares" Award

The Premier hospital alliance has awarded its 12th annual Monroe E. Trout Cares Award to Delaware Valley Community Health for its Taking Control/Impact program to help low-income diabetic patients reduce their risk of cardiovascular disease and to improve their quality of life.

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Putting Existing Data to Work to Improve Quality Care

In the healthcare environment, it's data, data everywhere. There are financial data, insurance data, employee data, clinical data, and so on. But when a healthcare organization wants more data on how it can improve quality care, does that mean it has to add more hardware, software, and personnel to monitor and analyze all the new data? Not necessarily. Some healthcare organizations are finding that they can use the data they already have—with a little help—to tell them how they are doing, how they can improve, and what they can anticipate.

This issue of *The Quality Letter for Healthcare Leaders* looks at several examples of how current data can be mined by healthcare organizations for more information to improve quality care. One example is at Spectrum Health, a nine-hospital system headquartered in Grand Rapids, MI, that is monitoring and analyzing 40 clinical conditions at several of its facilities.

And it looks at health plans such as Humana, headquartered in Louisville, KY, to see how it is taking data it already has to identify which patients will need additional services—particularly those who have or may develop chronic illnesses—and how they can be better served.

Spectrum Health: Sitting on a Gold Mine

In January, the senior leadership of Spectrum Health and its board met at a planning retreat to list the areas they wanted to focus on in 2004. Topping the list was quality. Several years ago, quality probably would have been nowhere near the top, says John Byrnes, MD, Spectrum's senior vice president of quality.

But in the last 2 years, the quest for quality has received a "significant infusion of resources" at Spectrum in terms of staff, number of full-time employees, and tools to "let people do their work," Byrnes says. But one of the main changes has been a focus on Spectrum's own data systems "so that we could get information out of the system."

"We wanted [the data] to tell us how we were doing, and then use that [information] as a targeting tool—to identify our areas that needed improvement so we could strategically deploy our resources," he says. But rather than search for new equipment and new sources of data, the healthcare system looked inward for what it needed, and received help in processing and analyzing that data via the Internet from MEDai, an Orlando, FL-based technology firm.

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The project was started from scratch. "We have a medical record system and a financial [record] system, but neither one of those was standing on its own to really give us the depth or breadth of the data we wanted," Byrnes says. MEDai took extracts out of the legacy systems—cleaning the data and providing severity adjustments and benchmarks—and returned the data, dividing it into 40 conditions.

"We were able to essentially in 6 months go from having very limited data to having wonderful data—a very robust data set," Byrnes says. "That's how we essentially turned the key to the data for a majority of the clinical improvement and many of the patient safety [projects]."

When Byrnes talks with leaders of other healthcare groups, he tells them that "they're sitting on a gold mine [with] the data," he says. "It's in their cost-accounting system. That's my favorite source for the data extract because 95% of what we need to do this work is sitting in cost accounting. Everything we do to a patient is coded and charged for."

Target Areas

Almost a year and a half ago, Spectrum targeted four areas that it wanted to improve:

- **Clinical quality.** Spectrum wanted to focus on its highest volume conditions on the inpatient side. It started with the top 40 conditions (see this page) for review. From them, it selected for intense quality improvement the top 10: total joint replacement, congestive heart failure, acute myocardial infarction, percutaneous transluminal coronary angioplasty, coronary artery bypass graft, cerebrovascular accident, community-acquired pneumonia, cesarean sections, normal deliveries, and back surgery. These conditions accounted for 29.5% of the inpatient population volume.

  During the next 2 years, the health system will concentrate on the next top 30 conditions (10 at a time). These conditions are expected to account for up to 75% of all inpatients. When the 40 conditions near target rates, 10 more will be selected, followed by 10 more, and so on.

- **Safety.** For this area, Spectrum took its existing programs and "really refined the focus," Byrnes says. This meant paying closer attention to medication safety and environmental safety. In the past year, nearly 50 patient safety projects have been implemented.

- **Service excellence.** Last year, an online patient complaint and compliment tracking system was established through the patient relations department. This was complemented by a "home-grown" system that uses telephone interviews to review satisfaction, and reports the results monthly and quarterly. The two data sources are combined to provide a "nice view unit by unit, floor by floor" of patient care and how the hospitals are doing, Byrnes says.

- **Measurement.** This focuses on both clinical quality and the patient safety and medication error reporting systems.

  Spectrum selected these four areas—instead of concentrating on just clinical quality—because "we just didn't feel like you can do one without the other," Byrnes says. "The national agenda has made it very clear that they are all pressing areas that we need to tackle

Medical Conditions Under Review by Spectrum Health

- Acute coronary syndrome
- Acute myocardial infarction (AMI) with percutaneous transluminal coronary angioplasty (PTCA) but without coronary artery bypass graft (CABG)
- AMI without PTCA or CABG
- Asthma/status asthmaticus
- Back and neck procedures
- Cardiac arrythmia/conduction
- Carotid endarterectomy
- Cesarean section
- Chemotherapy
- Chest pain/coronary artery disease
- Cholecystectomy
- Chronic obstructive pulmonary disease
- Community-acquired pneumonia
- CABG
- Delivery
- Diabetes type I
- Diabetes type II
- End-stage renal disease
- Gastrointestinal bleeding/ulcers
- Hip fractures
- HIV
- Hysterectomy
- Ischemic stroke
- Large intestinal resections
- Lower joint replacement
- Lumpectomy/mastectomy
- Lung cancer
- Newborn baby
- Newborn sick baby
- Prostatectomy
- PTCA
- Transient ischemic attack
- Transurethal resection of the prostate
- Vaginal birth
- Valve surgery with or without CABG
- Vascular surgery lower limb

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simultaneously. I think we've found that when … we're working on our clinical quality issues that there is a lot of overlap, for instance, in what we're doing with patient and medication safety."

Checking the Dashboard

Each of the conditions may have anywhere from 150 to 200 indicators or measures by which to analyze trends. To make them easier to follow, a "high-level" dashboard is used that is limited to 10 to 15 of the most important measures. These measures can be compared by hospital and by national benchmark figures.

The medical directors, chairpersons of the clinical departments, and administrative directors at the hospitals were responsible for designing

Figure 1. Sample Medical Condition Dashboard

Clinical Outcomes Report, January 1, 2004 – December 31, 2004

Congestive Heart Failure

	No. of Patients	2D Echo-cardiography	ACE Inhibitors	Beta-Blockers	Antilipids	Readmit Within 30 days
Hospital A	677	58.3%	[56.9%]	(35.8%)	(23.1%)	[7.7%]
Hospital B	645	60.0%	64.5%	(45.0%)	18.3%	4.9%
Hospital C	92	58.0%	55.1%	(40.6%)	17.4%	(2.9%)
Hospital D	645	60.0%	64.5%	(46.0%)	18.3%	4.9%
Hospital E	571	60.6%	(75.9%)	21.3%	[12.2%]	[8.0%]
Health Syst A	1985	60.9%	64.8%	(30.8%)	18.01%	6.6%

Acute Myocardial Infarction

	No. of Patients	Aspirin	Met Door to Drug Target	ACE Inhibitors	Beta-Blockers	Coumadin
Hospital A	380	(96.7%)	47.2%	54.7%	(84.6%)	14.8%
Hospital B	397	(97.7%)	(69.4%)	55.6%	(81.2%)	10.8%
Hospital C	75	(96.7%)	49.1%	(60.9%)	(85.9%)	5.4%
Hospital D	380	(98.7%)	47.2%	54.6%	(84.6%)	14.8%
Hospital E	231	85.1%	[21.8%]	(58.4%)	[58.4%]	14.4%
Health System A	1083	(96.3%)	49.9%	(56.2%)	(77.5%)	12.6%

[ ] (box) Unfavorable severity-adjusted variance.

( ) (oval) Favorable severity-adjusted variance.

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their own dashboards. “They picked the indicators. They talked to their colleagues about what measures were most important, so it became their dashboard,” Byrnes says. (See Figure 1, which is a generic example.)

For a condition such as congestive heart failure (CHF), the interest has been in meeting JCAHO core measures for the condition. But also (as reflected in the dashboard), the hospitals can compare beta blocker rates, Coumadin use, ACE inhibitor use, a patient’s atrial fibrillation rate, and mortality rates.

Among the early results of compiling the CHF measures during the past 6 months has been a push for beta-blocker use where rates were low. Also, readmission rates within 31 days were “a little higher” than providers liked, so discussions began on how to put more care management support in place in the outpatient setting, Byrnes says. “Essentially, they’re really starting to talk about formalizing a classic CHF case management program,” he says.

With total joint replacement, several areas have emerged in the past 6 months, such as the use of blood transfusions and antibiotic prophylaxis. Wide variations existed among the hospitals, which have started discussions among the surgeons. These have led to changes—in a short period of time—such as the rate of transfusions decreasing by half.

Combing the Data

MEDai, founded in 1993, receives the Spectrum hospitals’ administrative, registry, financial, and clinical data—generally the uniform billing form (UB-92) plus charge detail information and physician data—securely via the Internet. Three Spectrum hospitals—Blodgett, Butterworth, and DeVos Children’s in Grand Rapids—are the initial participants. The remaining six are expected to follow suit this year.

Spectrum uses two program from MEDai. The Pinpoint Compliance program incorporates JCAHO core measures and focuses on process and outcomes. The Pinpoint Quality program uses severity adjustment and statistical analysis, combined with evidence-based guidelines and benchmarks, to identify and target areas for clinical improvement.

The data from the Pinpoint Compliance and Pinpoint Quality programs are integrated to help pull together a better picture of each of the 40 conditions as a clinically cohesive disease. “We put a lot of emphasis on evaluating by clinically cohesive diseases rather than, for example, diagnosis-related groups [DRGs],” says Diane Lee, MEDai’s executive vice president.

The data sent from the Spectrum hospitals undergo a “scrubbing process” that evaluates them and identifies missing or incorrect information such as invalid revenue or ICD-9 codes, invalid procedures or diagnoses based on sex or age, missing revenue or procedure codes, incompatible admission and discharge data, and duplicate information.

MEDai also uses an automated process for severity adjustment that focuses on risk factors present when the patient is admitted rather than other risk factors—such as complications or procedures—that occur during a patient’s stay. “If you have a patient that has a procedure, they’ll

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> **John Byrnes, MD**
> **Spectrum Health**

We’re here to help!

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>
> **Diane Lee**
> **MEDai**

look more severe with an all-patient-refined DRG, which doesn't make sense because that was part of the treatment," Lee says.

With a new client, the initial turnaround time from when the company gets the data—and then does the cleanup, compiles the charges for a particular condition, and provides a tool on its website—is about 10–12 weeks. After that, the data can be posted quarterly—taking a month to refresh it.

Physician Practices

MEDai can provide physician profiling for each of the 40 major conditions for Spectrum and compare each physician with peers and specialists. It can prepare a report listing 20 major indicators (such as outcomes, drugs, diagnostics, and treatment) for each physician for a particular condition. Variances in treatment are color-coded. (Red is unfavorable and green is favorable in MEDai's reports.)

These charts can flag a problem that may be more than an individual physician variance issue. For instance, if a chart for pneumonia shows red for underuse of a drug and overuse of bronchoscopy, "it gives you a hint that this is not a physician issue—it's a hospital process issue," Lee says.

In general among MEDai's clients, physician profiling also can detect variances among physicians depending on the severity. For instance, when all physicians are combined for a condition, more green is observed among family physicians for the lower severity levels but reds are observed for the higher severity levels.

The opposite frequently occurs for internists when some conditions are observed, Lee says. "You can begin to see a trend often that the internists do well when they're treating the sicker patients, and the family physicians do better when they're treating the less-sick patients."

Implementation and Buy-In

Implementation of the data-extracting initiative did not require additional data input—although "it did require a bit of programming to get the extracts out of it," Byrnes says. "We have that automated now, but in the beginning, it was a bit labor intensive, and that fell on our [information technology] department.

"The main investment really is the training and setting up of implementation plans—and then rolling it out to the organization," he says. For a month or two before the actual live data arrive, previous reports from other parts of the organization will be used to get people familiar with benchmarks and severity adjustment. When the data arrive, meetings are held to discuss the findings and what training or education will be needed to make changes.

Among the group that historically tends to be critical of risk-adjusted data—the physicians—there has been acceptance for the most part. "It's interesting. There's been a lot less pushback on the data here than we would have seen 2–3 years ago," Byrnes says. "I think that's because of the quality of the tool we're using, but we also went to extreme lengths to validate our tools before we ever took them out to the physicians."

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In particular, physicians seemed approving of the criteria used for severity adjustment. For instance, with total joint replacement, the criteria used for risk severity adjustment were specific to the patient population. But the criteria for total joint "would be totally different than the criteria for a patient who is having bypass surgery—and that makes a lot of sense," Byrnes says.

"In the past, where we used to take months to get over those hurdles of data quality and severity adjustment, it [now] took a much shorter time," he adds.

Humana: The Future Picture

The Humana health plan has been looking at its repository of clinical, medical claims, and pharmacy data—but with a different goal. It wants to combine this with behavioral and psychodemographic data to help better predict where resources will be needed and responded to in providing quality care, according to Jonathan Lord, MD, who is Humana's senior vice president and chief innovation officer.

The initiative is a new approach to disease management called predictive modeling: Rather than wait for someone to have a heart attack, for instance, steps can be taken ahead of time—after culling through data—to alleviate conditions that will cause the heart attack. "The key is predicting before people ever get sick. To do that, we have extraordinary assets within the data that allows us to do that," Lord said at a presentation in January at the 2004 World Health Care Congress in Washington, DC.

"Our experience with data is that about 90% of the data that we have is worthless, but about 10% of it is real gold," Lord said. The same technologies that the Department of Defense uses in combining data for information needed to identify incoming missiles and "separate the missiles from the chaff" could get a new life in the healthcare industry.

Until now, the industry has been caught in a constantly repeating bias, in which making predictions was like basing tomorrow's weather forecast on what happened the day before. "In disease management programs, we've generally done it on the basis of knowing something that anybody should see is absolutely obvious [like a heart attack] when they get into a hospital," Lord said.

The data will help "sort patients based on our belief" about who is going to get sick, he added. "We believe that the future of disease state management in this country is to get ahead of where people are at—and then trend [and look at] healthcare outcomes by starting to work with people."

But this movement toward early prediction of outcomes is tempered by the fact that individuals should feel "engaged" in making decisions for themselves and feel personal empowerment. This consumer engagement runs the gamut from how people feel about their health benefits to how they make choices to how well they perceive their decisions being supported.

It also means for providers and payers understanding individuals' reactions toward early detection and its health consequences. For instance, who will choose certain benefits, who is willing to prepay for

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Coming Up

The Quality Letter for Healthcare Leaders is working to bring you information that you can use now to promote and enhance quality healthcare. In upcoming months, we will be looking at the anatomy of a patient safety program and improving the nursing environment.

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> "Our core bias is that we need to treat people like adults in a healthcare system. It's not our job to be their keepers or their decision-makers. What we need to do is serve up good information that's timely to their medical condition and allows them to make choices that are right for themselves."
>
> **Jonathan Lord, MD**
> **Humana**

benefits, who thinks they will get sick, and who will respond to different interventions?

These choices—combined with transparency (letting people know alternatives and costs) and independence (reinforcing the idea that people need to make their own decisions in the healthcare system)—will "yield both savings and greater satisfaction with the experience that people have in the healthcare system," Lord said.

New Prediction Science

Conventional prediction science is inadequate, he says, because data are slow to arrive, coding is approximate and incomplete, coding conventions conceal wide variations in practice, and physician diagnoses vary widely in quality. "[It's like] we do a lot of work through a rearview mirror as opposed to looking over the hood ornament of a car," Lord said.

"I think what we want to do is get people to look forward as opposed to looking backward," he added. This means looking at the new predictive science—marrying the disciplines of epidemiology (condition parameters and treatment paths, and significant clinical events) with engineering (asynchronous signal processing, learning algorithms, and tipping points).

"Let the data teach us in terms of trying to identify where are the tipping points relative to conditions and relative to our ability to intercept those conditions," Lord said.

Predictive Modeling in Action

Humana's predictive modeling program, which it built from the ground up, is now starting to "connect people into a variety of appropriate programs," Lord noted. One of these is identifying and stratifying people for the Humana personal nurse program. These nurses, who are trained in motivational interviewing, provide telephonic support and work in a "tech-based environment on the Web," he said.

The nurses, who work within a private practice model setting in their homes, do not do case management, Lord emphasized. Instead, they guide patients by telephone on how to better manage a condition, for instance, by discussing how to use e-tools or helping the patient increase medication compliance. When the nurse makes an online assessment with the patient, those data elements will be fed back into the predictive model.

"We worked hard in getting the nurses to not [create] a new dependency model in the healthcare system but to try to make the individual more independent," Lord said. "The personal nurse is nothing more that a 'personal trainer' for the person having to use the healthcare system better."

Humana also is looking at what it calls "maximizing benefits." Plan members given certain prescriptions may receive a call, e-mail, or letter informing them that a cheaper alternative may be available and encouraging them to consult with their physicians. This has led 20% of those contacted to switch to a cheaper alternative. (In looking closely at this figure, 45% of those who considered their medication mildly effective in addressing their symptoms switched, whereas only 9% of those who

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thought it gave them symptomatic relief did so.) Those who switched saved on average $200 annually.

Methods such as personal nurses or suggesting other medications are used in a "permission-based environment where we try to allow the individual in charge to make the choices that they say are right for them," Lord said.

"Our core bias is that we need to treat people like adults in a healthcare system," he emphasized. "It's not our job to be their keepers or their decision-makers. What we need to do is serve up good information that's timely to their medical condition and allows them to make choices that are right for themselves."

"We believe that when people are engaged [in the decisions they make] … that we will have a fundamental change in the way healthcare is consumed and used in the country," Lord added. ■

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Transforming Healthcare: IOM Panel Discusses Vision and Reality After *Crossing the Quality Chasm*

Almost 3 years ago, the Institute of Medicine (IOM) released its pivotal report *Crossing the Quality Chasm*, which challenged the healthcare community to reevaluate and reinvent the way it provides care. (See *The Quality Letter*, 3/2001.) The report said significant improvements were needed to make sure that healthcare was safe, effective, patient-centered, timely, efficient, and equitable.

At the beginning of 2004, IOM hosted an invitational summit in Washington, DC to look at whether that vision is becoming a reality across the country and in local communities. The summit focused on five priority areas: asthma, congestive heart failure, major depression, diabetes, and pain control in advanced cancer. "We envision this summit as a practical and a tangible next step in the process of crossing the quality chasm," said Reed Tuckson, MD, the IOM committee chair and vice president of the UnitedHealth Foundation in Minneapolis.

Since the release of the *Quality Chasm* report, it has been "the best of times and the worst of times" in terms of providing quality healthcare, according to John Lumpkin, MD, who is senior vice president with the Robert Wood Johnson Foundation in Princeton, NJ.

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John Lumpkin, MD
Robert Wood Johnson Foundation

It has been the best of times because new private sector programs, such as "Rewarding Results," have been created in which healthcare providers are eligible for financial or nonfinancial incentives after meeting quality goals tied to medical outcomes and clinical performance. (See *The Quality Letter*, 10/2002.) But it also has been the worst of times because of sharp variations in healthcare delivery and quality related to "who you are, where you receive your care, and who your providers are," Lumpkin said.

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>
> **Donald Berwick, MD**
> **Institute for Healthcare Improvement**

Higher Costs Don't Equal Better Outcomes

Despite changes in delivery, healthcare costs have remained "extraordinary," said Donald Berwick, MD, president and chairman of the Boston-based Institute for Healthcare Improvement and a member of the original IOM *Quality Chasm* panel.

At least $5,000 per person is spent annually in the United States to provide healthcare. But wide variations exist even when demographic adjustments are made. "We now know that there are communities and areas in our country that are able to deliver care at substantially lower investments with documented outcomes as good as other areas," Berwick said.

For instance, healthcare costs about $3,400 per person annually in Appleton, WI, whereas in Miami, the cost is closer to $8,000. "You might expect that these variations in investment would be associated with variations in outcomes—with the more money spent, the better the outcomes," Berwick said. "But there is no such luck. There is no evidence that the highest-expenditure regions of this country are the ones that are achieving the better outcomes."

He cited an article by Eliott Fisher, MD, MPH, of Dartmouth in the October 23, 2003 *New England of Journal of Medicine* that found differences in spending unrelated for the most part to differences in illness or price of procedures. Instead, the costs are related to differences in practice patterns, which are more inpatient-based and specialist-oriented.

These healthcare costs per person are much lower in European countries. "I can vouch from my many trips to European countries that the quality of care achievable now in many Western democracies … vastly exceeds the American level of quality of care at less than half the cost," Berwick said. "We need to develop, in my opinion, extraordinary new levels of international curiosity about how those systems achieve what they do."

Focus on Chronic Disease

Overall, "it's time to end the myth that we don't have enough money in our healthcare [system]," he said. Instead, focus needs to be placed on eliminating waste and encouraging more cooperation at the local level. Also, Berwick added, it's time to review the healthcare structures in communities and see if they remain valid for today's needs.

"[Healthcare] organizations need to somehow … give up the notion that their own survival is the reason they're around," he said. "Their survival needs to be put at stake under the service of the patient. If the organization needs to end—move, change, be a different thing—it's got to be an option."

Consideration should be given to building healthcare infrastructures that start with an entire community building a registry of information about a specific chronic disease. "Adopt uniform electronic medical records for your community," Berwick said. "Let's make healthcare as modernized in record-keeping as pizza joints are."

He suggests using community-wide registries that would have to be institutionally supported since individual physicians would not be able to

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do it by themselves. At the same time, efforts are needed to bring physicians together—in a sort of virtual group practice—so they can share data and measuring. This means new information technology infrastructures and electronic medical records as well.

"We do need to focus all of this on chronic illness care," Berwick said. "We picked exactly the right five topics to work on because if we can fix those topics, we'd be way, way downstream in terms of designing the care we need.

"It will take high levels of cooperation and fundamentally new views of the patient—not as the object of our care, not as a guest in our house but as the host of our work and as the person who ultimately has the say in what we do or do not," he said. "And the results will be to … remove pain or suffering, [and alleviate] helplessness or waste."

Community Examples

The IOM panel heard from several community organizations about steps they are taking to acquire provider cooperation and improve the quality of care related to several chronic conditions:

- The Mid-America Coalition on Health Care, an employer coalition headquartered in Kansas City, MO, started a community initiative on depression in 1998. Initially intended to focus on the condition's costs, it very quickly "evolved into the very real and human systems issues," said the coalition's president and CEO William Bruning, JD.

  To get an initial understanding of how employees perceived depression, 39,000 individuals were surveyed by eight employer members of the coalition. They found some surprising results that have since driven the coalition's work in this area. In particular, they learned that there is "less stigma than we all presumed people to have today, and that there's a real openness to being treated for the disease," Bruning said. However, there was a perception that no resources were available in the workplace—even though all the employers in the survey offered comparable insurance coverage for mental health conditions.

  To address this area, an Intranet module was created in each workplace to provide facts about the disease (through a link with an American Psychiatric Association site), to list community resources for the employee and family members, and to address benefits available from the employer.

  To get a better grip on evidence-based care related to depression, the coalition worked with the Kansas City Quality Improvement Consortium, a United Auto Workers–Ford initiative, to look at best practices and develop a community consensus on how physicians will address depression. All area health plans have adopted it, Bruning said.

- Greater Flint [MI] Health Coalition, an organization made up of employers, hospitals, labor groups, businesses, insurers, physicians, and consumers, has created a back pain management task force that has been working for the past year on a set of guidelines for the

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Donald Berwick, MD
Institute for Healthcare Improvement

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>
> **Henry Gaines**
> **Greater Flint Health Coalition**

entire community on how to treat individuals with back problems, according to coalition chairperson Henry Gaines.

"The problem we had in putting together this particular project was that the surgeons had a distinct disagreement in how people should be treated with back pain [with] the other physicians involved," he said. "And it took a great amount of work to try to get the two groups to reconcile their differences—at which we failed."

However, the providers "took the time to try to work out a compromise that would allow us to move forward with the project—at which we did succeed," Gaines said. "So you're not always going to win all of your outcomes, but you do have to keep working at it to achieve some."

A heart failure task force was created by the coalition to look at issues such as coordination of care and the measurement of the prevalence of heart failure in alcohol use and its effect on comorbidity.

The coalition also has a cost and resource planning committee that makes most decisions for the task forces. The committee is supported by a subcommittee that "reviews all of the medical data within our community to help point us in appropriate directions so that whatever we undertake is data driven," Gaines said.

- At Children's Mercy Hospital in Kansas City, MO, asthma is the second leading reason for admissions. To tackle this high incidence, Jay Portnoy, MD, a pediatrician at the hospital and a member of the Kansas City Asthma Coalition, said, "We can work harder, which is process-oriented. We can educate patients [and] providers, and we can grade health plans and use report cards to judge them—which is somewhat of a punitive approach.

"Or we can use the second option, which is to create a new system of care that is goal-oriented," he said. "Remember, it's the patient's goals. And the healthcare delivery can be organized, coordinated, and monitored. This monitoring can be used to improve the outcomes rather than to punish health plans."

For instance, physicians often have difficulty diagnosing asthma in young patients. "They don't know what the criteria are," Portnoy said. Guidelines are vague—defining asthma as a widespread narrowing of the airways. "They may call it bronchiolitis, pneumonia, reactive airway disease.

"What we needed were simple diagnostic criteria to teach the providers so that they can make the diagnosis. So we came up with those criteria," he said. The criteria noted signs or symptoms of airflow obstruction, variability, and recurrence while ruling out other diagnoses.

The diagnostic criteria were tested by a group of physicians caring for patients in a health plan panel. In 2002, about 10% of the patients in the panel were diagnosed with asthma. After the physicians were presented with the criteria and were encouraged to make the diagnosis when applicable, the rate went up to 16%. "It is a very effective tool," Portnoy said. ■

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Quality Update

Premier Announces Winners of Its "Cares" Award

The Premier hospital alliance has awarded its 12th annual Monroe E. Trout Cares Award to Delaware Valley Community Health for its Taking Control/Impact program to help low-income diabetic patients reduce their risks of cardiovascular disease and improve their quality of life.

The Cares Award, which recognizes outstanding efforts by not-for-profit organizations to improve the health of the medically underserved, was presented in January during Premier's annual Governance Education Conference. The Taking Control/Impact program received $70,000.

Delaware Valley Community Health, a private organization that delivers community-based healthcare, operates three federally qualified health centers (two in North Philadelphia and one in Norristown, PA). The Taking Control/Impact program was developed in response to a high incidence of cardiovascular disease in its service area. Diabetic patients who receive their primary healthcare at participating Delaware Valley community health centers can enroll in "Taking Control" classes which are designed to encourage self-management: Patients learn to monitor their blood sugar, take their medications, and manage their conditions through proper diet and exercise. Also, software developed by the program has been used to reinforce the idea that improvements in blood glucose, cholesterol, and blood pressure levels—as illustrated through actual measurements—are leading to better outcomes for 10 diseases, including myocardial infarction and stroke.

Premier received more than 200 applications for the award. A panel of hospital staff members, along with health and business leaders, selected the winner and five finalists (who received $20,000 each):

- Christ House in Washington, DC, which helps homeless people get off the streets and into treatment, was cited for its work to provide healthcare, social services, and substance abuse treatment to help clients break the cycle of homelessness. During the past fiscal year, nearly 60% of male patients and 80% of female patients were placed in housing at discharge from the program. Christ House has served as a model for programs in Chicago; Boston; Greensboro, NC; Sweden; Japan; and England.
- Lakeland (FL) Volunteers in Medicine provides free primary care to the working uninsured in this largely agricultural region. With seven paid employees, the organization offers care to 23,000 people each year through the volunteer efforts of more than 180 medical professionals and 270 community volunteers, who perform most of the nonmedical tasks involved in running the clinic.
- The Margaret Hudson Program in Tulsa, OK, provides education, mentoring, and healthcare services to keep pregnant girls and teen parents in school. The program provides assistance with vocational training, promotion of the health of mothers and children, prevention of child abuse, and prevention of pregnancy. While 50% of pregnant teens drop out of school, more than 70% of Hudson students graduate from high school, and less than 5% of them have a second pregnancy while they are in the program.
- Nurses for Newborns in St. Louis works to prevent infant mortality, child abuse, and neglect by providing education, healthcare, and positive parenting skills. Its home visiting agency offers a "safety net" for high-risk families by helping women get access to prenatal care, learn how to care for infants, develop parenting skills, prevent repeat pregnancies, and ensure immunization. In fiscal 2002, 89% of the children in the program were current on their immunizations, and 99% required no repeat hospitalizations. No repeat pregnancies occurred among 95% of the mothers.
- Partners Health Initiative (PHI) of Anderson, SC, has helped residents in upstate South Carolina and northeast Georgia make informed decisions about their healthcare. PHI distributed a self-care handbook to more than 160,000 households in a four-county area to help readers identify symptoms, determine what can be done at home, and decide when to call a physician or the emergency department. The handbook is supplemented by a 24-hour nurse call line that provides information and referrals. During a 30-month period, 23% of the area's population used the handbook to avoid a visit to a physician, while 15% avoided a trip to an emergency department; this saved an estimated $34.5 million in healthcare costs.

For more information on the award winners, see www.premierinc.com.

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New Alcohol, Drug Treatment Performance Measures Could Stimulate Better Care

At the beginning of this year, the National Committee for Quality Assurance (NCQA) incorporated new performance measures for treating alcohol and other drug problems into its Health Plan Employer and Data Information Set (HEDIS). The new measures likely will present a far more complete picture of how well a health plan guides alcohol-dependent patients into the initial phase of treatment, according to researchers at George Washington University Medical Center in Washington, DC.

With this measurement, healthcare purchasers for the first time will be able to compare how well health plans are improving identification of people in need of treatment, helping them initiate their treatment, and engaging them in their care. Previously, NCQA asked plans to calculate only the percentage of patients who had received treatment for addiction and the average length of stay of those who were discharged from inpatient treatment.

Pilot testing of the new addiction treatment performance measures demonstrated "their feasibility" but also suggested "the need [for plans] to improve identification, initiation, and engagement rates," says the report prepared by the university research group, Ensuring Solutions to Alcohol Problems.

The researchers noted that in the pilot study, six healthcare organizations—which provided services to about 5 million people—identified an alcohol or drug problem in no more than 1.45% of their adult enrollees. However, the federal government has estimated that 7.4% of full-time workers have an alcohol problem.

Treatment initiation rates varied: In two health plans, nearly half the patients identified with an alcohol or other drug problem initiated treatment within 2 weeks of their diagnosis, while in two other plans, only a fourth did. Even in the best performing health plans, 71% of the patients diagnosed with alcohol or drug problem who started treatment failed to receive more than two additional services, such as visits to an outpatient clinic, in the following month.

The results of the pilot study show how health plans and purchasers might use performance measurement to improve the quality of addiction treatment, the report says. For example, low treatment initiation rates could prompt a health plan to investigate why more patients diagnosed with an addiction problem weren't receiving treatment—and if some aspects of its treatment "needs to be fixed."

For additional discussion of the new alcohol treatment performance measures, see www.ensuringsolutions.org. The Ensuring Solutions project is supported by a grant from the Pew Charitable Trusts.

NCQA's Medicare+Choice Deeming Standards OK'd by CMS

The National Committee for Quality Assurance (NCQA) announced in January that the Centers for Medicare & Medicaid Services (CMS) has approved its 2004 managed care organization (MCO) standards as meeting or exceeding Medicare's quality requirements. This means that private MCOs participating in the Medicare+Choice (M+C) program will be able to apply their NCQA accreditations toward fulfilling various federal regulatory requirements.

In 2002, NCQA became the first private accreditation organization to gain deeming authority under Medicare+Choice. Since then, 53 of the approximately 150 plans participating in the M+C program have opted to pursue NCQA M+C deeming.

NCQA's M+C deeming program originates from its MCO accreditation program, which meets about 80% of CMS's required standards. Another M+C module includes 12 additional Medicare-specific requirements. CMS has determined that NCQA's standards "met or exceeded" the requirements of the M+C program in six areas:

- Quality assurance;
- Information on advance directives;
- Antidiscrimination;
- Access to services;
- Provider participation rules; and
- Confidentiality and accuracy of enrollee records.

In 2004, NCQA is moving the M+C program from a paper-based process to a web-based platform. The online version is designed to be more efficient and interactive and will let participating organizations receive preliminary feedback on their performance before surveyors arrive onsite. NCQA's Interactive Survey System has been used successfully for other of its programs for nearly 2 years.

NCQA's 2004 M+C module will be available for purchase this month.

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Interested parties may buy information about the standards online at www.ncqa.org. Those interested in undergoing a survey should call customer support at (888) 275-7585.

Decibel Levels May Be High in Hospitals for Routine Activities

Hospitals looking to provide a quality environment for their patients now may have to look more closely at another area: noise. At the Mayo Clinic in Rochester, MN, a nursing team found high levels of noise—sometimes rivaling noises made by chainsaws or jackhammers—associated with many everyday routines in the hospital environment.

The investigation, which is reported in the February issue of the *American Journal of Nursing*, was conducted after patient complaints of poor sleep related to noise. First, the nursing team placed noise dosimeters in three empty patient rooms during a 10 p.m. to 7 a.m. night shift. In a second project, two nurses volunteered to sleep overnight in a semiprivate room—and to log their experiences—while using equipment and monitors typically used during a thoracic surgery patient's stay.

The nurses found that peak dosimeter readings around the times of the morning and night shift changes could reach as high as 113 decibels—about the level of the chainsaw or jackhammer.

To tamp down noise and provide better sleep in other ways as well for the clinic's patients, the Mayo nursing team decided to:

- Move staff reports at shift changes from the nurses' desk to an enclosed room;
- Place foam rubber padding in the chart holders outside patient rooms and in the pneumatic tube document-delivery system;
- Replace noisy roll-type paper towel dispensers with silent folded-towel dispensers;
- Routinely close doors to patients' rooms;
- Lower the volume of cardiac monitors in the patient rooms (but with additional alarms sounding at the nurses' station);
- Change nightly chest x-ray times from 3 a.m. to 10 p.m.;
- Use flashlights instead of overhead lights when entering patients' rooms; and
- Educate staff members to help draw attention to the issue and to share noise control measures.

First Organization Accredited Under Joint Human Research Protection Program

Patient Advocacy Council, Inc. (PAC), an independent institutional research board (IRB) based in Mobile, AL, this year became the first organization to be accredited under the national Partnership for Human Research Protection (PHRP) program. The program, launched in 2003, is a collaboration between the Joint Commission on Accreditation of Healthcare Organizations and the National Committee for Quality Assurance.

PHRP provides a national set of standards and a voluntary oversight processes to ensure that processes are in place to inform and protect the thousands of volunteer human subjects who participate annually in clinical trials and other research activities.

PAC, founded in 1999, completed a readiness evaluation last fall to compare itself with PHRP standards and the PHRP survey. During the accreditation survey, a team of PHRP surveyors—which included research clinicians and others experienced in biomedical research—validated performance against the standards. The PAC IRB meets weekly and provides notification of board response within 72 hours.

Six other organizations, including IRBs and medical research institutions, are seeking PHRP accreditation. For more information about PHRP, see www.phrp.org or contact PHRP at (202) 955-5177. For information about PAC, see www.pacirb.com or contact Daphne Childers at (251) 479-5IRB.

Evidence-Based Approach Suggested For Improving Care in Sepsis Cases

Each year, 500,000 to 1 million cases of sepsis occur in hospitals. Their annual mortality rate is 15% to 30%, or about 200,000 deaths, and many more patients incur permanent organ damage. However, a new monograph from the VHA hospital consortium suggests that using evidence-based medicine with clinical process improvement can make an impact in the critical care environment, as well as other clinical care settings, in reducing morbidity and mortality related to sepsis.

The monograph, *Improving Sepsis Care in the Intensive Care Unit: An Evidence-Based Approach*, uses a model drawn on work performed in the critical care units of Johns Hopkins Medical Center and on work by collaborative teams at community-owned hospitals nationwide. (See *The Quality Letter*, 10/2002.)

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The monograph notes that for nearly a century, sepsis has been defined as "the body's systemic response to an infection," and that the definition has changed little despite ongoing deliberations. In the early 1990s, a consensus panel recognized that a continuum of sepsis existed—from the least severe (systemic inflammatory response syndrome) to septic shock. But, unlike other clinical diagnoses, no specific clinical or biochemical markers for sepsis have been identified.

As a result, no "gold standard" has evolved to confirm or reject the diagnosis of sepsis. But accurately diagnosing sepsis at the bedside and treating it is critical, the monograph notes. From this, steps should be taken to review the medical evidence and identify interventions that will promote optimal care based on that evidence.

The monograph looks at a variety of indicators for quality care of sepsis (plus definitions of the indicators and specifications) including:

- Vancomycin received within 24 hours after ICU admission;
- Mean time to vancomycin initiation;
- Mean time to antibiotic initiation;
- Blood cultures collected within 24 hours after ICU admission;
- Steroids received within 24 hours after ICU admission;
- Vancomycin discontinuation within 96 hours after ICU admission;
- Activated protein C eligibility assessed within 24 hours after ICU admission; and
- Glucose control.

The monograph also looks at broad-spectrum antibiotic recommendations and provides a timeline for data collection. A sepsis checklist is included. It is available at www.vha.com/research/public/sepsis_icu_execsum.asp.

New Electronic Health Record Standards Released

The Chicago-based American Health Information Management Association (AHIMA) has issued best practice standards for electronic health records (EHRs). AHIMA said this is part of its initiative to promote the switch from a paper to an electronic health information infrastructure, reinvent how institutional and personal health information and records are managed, and deliver measurable cost and quality results from improved information management.

In early 2003, AHIMA appointed a task force to provide guidance in this area. The task force assigned work groups to develop six key reports:

- The complete medical record in a hybrid EHR environment;
- Implementation of e-signatures;
- E-mail as a provider-patient electronic communication medium and its impact on the EHR;
- Electronic document management as a component of the EHR;
- Core data sets for the physician practice EHR; and
- Speech recognition in the EHR.

The guidance is available at www.ahima.org/infocenter/ehim.

Calendar of Events

- The National Institute for Case Management and the American Case Management Association will hold its annual clinical case management conference April 28–May 1 in Lake Buena Vista, FL. For more information, call (501) 227-5400.
- The Institute for Healthcare Advancement will present clinical and educational solutions to low health literacy May 13–14 in Anaheim, CA. For more information, call (800) 434-4633 or see www.iha4health.org.
- IQPC will present innovations in workforce management for hospitals and health systems May 24–26 in Las Vegas. For more information, call (800) 882-8684 or see www.iqpc.com/healthcare.
- The Health Care Compliance Association will present an audio conference on quality and credentialing June 1. For more information, call (888) 580-8373 or see www.hcca-info.org.

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