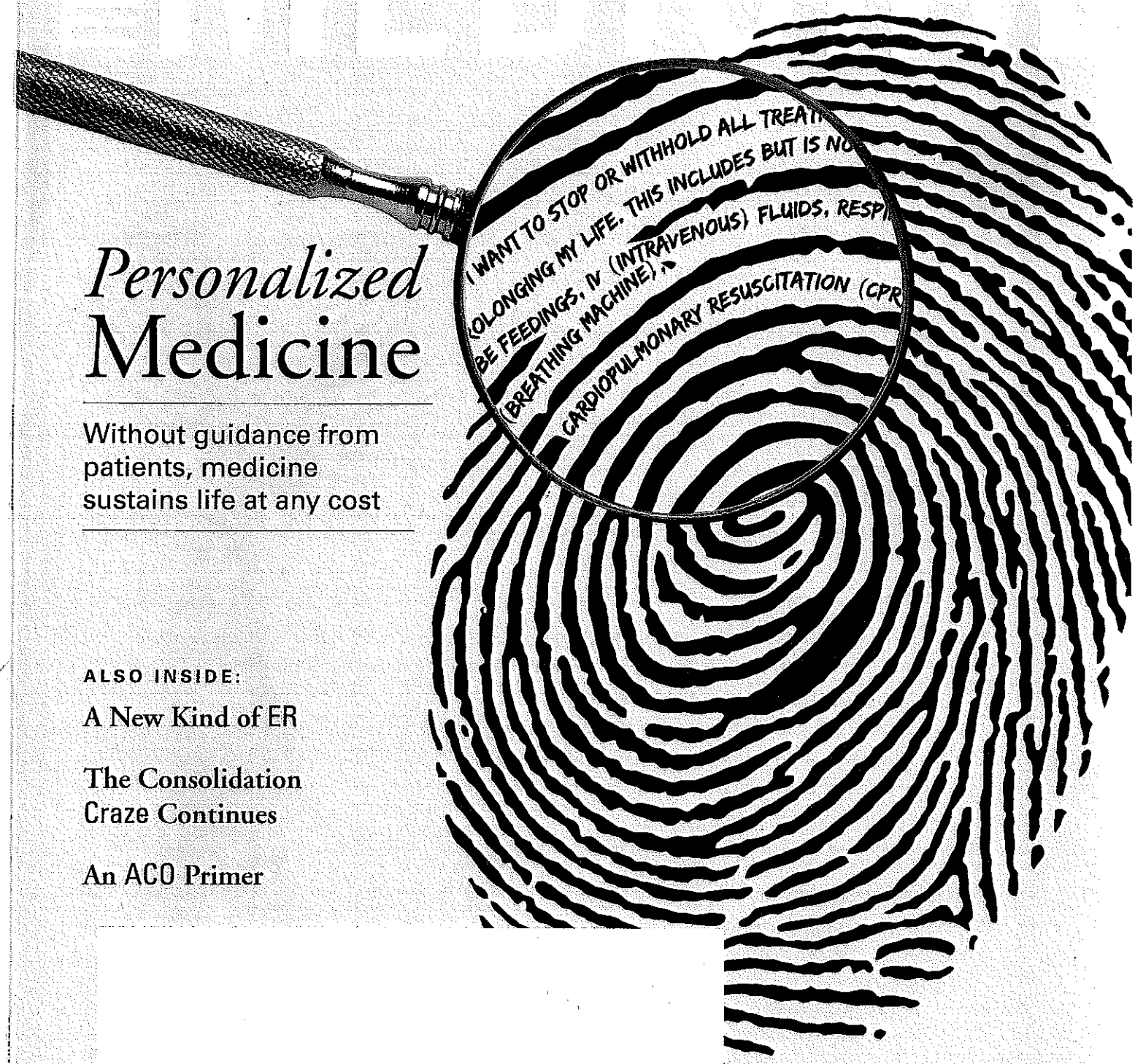

Personalized Medicine

Without guidance from patients, medicine sustains life at any cost

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A New Kind of ER

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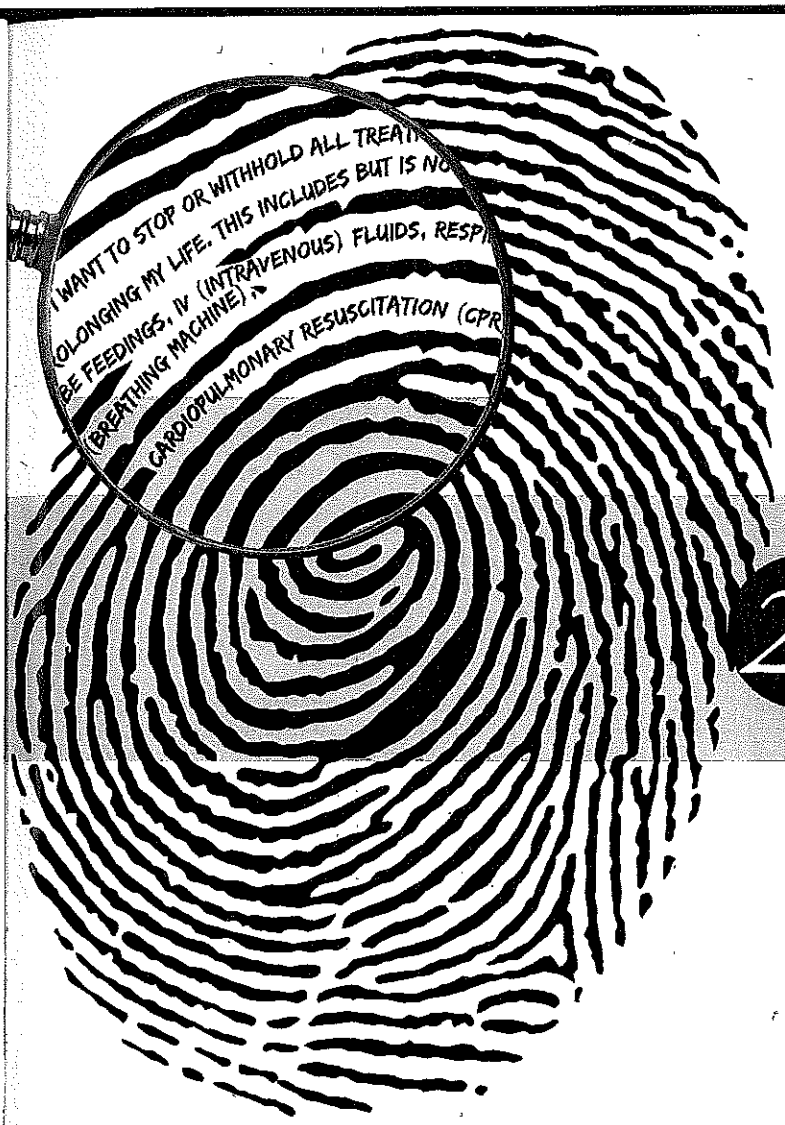
An ACO Primer



Two Minnesota initiatives are trying to ensure that providers honor patients' preferences for end-of-life care.

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MINNESOTA MEDICAL ASSOCIATION

FEBRUARY 2011

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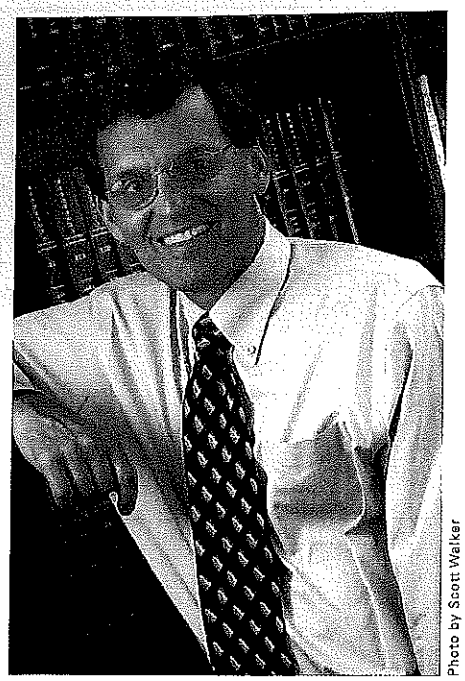


Photo by Scott Walker

The Next Round for Reform

Political change in this country is a messy business. Since July 4, 1776, the engine of democracy has spitted and sputtered, sometimes reversing, sometimes grinding to a near halt in the quest to refine what our Founding Fathers initiated. Perhaps no issue has had more false starts than health care reform. Unfulfilled promises for health care reform have plagued most presidents since FDR, with the exception of LBJ, who muscled the bills that created Medicare and Medicaid through Congress in 1966. President Clinton rode into Washington in 1992 sensing an apparent mandate to change the system and watched as his wife orchestrated a much-publicized, much-criticized failed effort.

Last March, it seemed that President Obama had broken the spell. With its provisions for an expansion of the Medicaid population, guarantees of insurability that would result in an additional 32 million Americans with health insurance, and innumerable proposals for experiments in patient care delivery, the Patient Protection and Affordable Care Act (ACA) was the most ambitious foray into health care reform since LBJ's armtwisting victory in 1966. To the dismay of his liberal supporters, Obama achieved passage of the ACA through compromise after he lost his filibuster-proof majority when Massachusetts, in a moment of political irony, replaced the deceased, longtime single-payer proponent Sen. Ted Kennedy with a conservative Republican. Conservatives were even more dismayed. Before, during, and after the November 2010 elections, criticisms of the ACA in the press and from all along the political spectrum mounted. Trouble was brewing.

Although the ACA likely won't disappear, it seems that changes are afoot.

The ACA has become public enemy No. 1 for Republicans. The Republican-dominated House has attempted to repeal the entire bill with passage of the largely symbolic "Repealing the Job-Killing Health Care Law Act." Their next anti-ACA strategy likely will involve picking off individual parts of the bill. Attorneys general in many states have initiated lawsuits challenging the constitutionality of the ACA's health insurance mandate, and at least one federal judge has ruled in their favor. Although the ACA likely won't disappear, it seems that changes are afoot.

So this seems like a good time to revisit the issue of health care reform. Already, we're seeing that regardless of what happens to the ACA, new experiments in delivering care will continue to pop up like spring tulips. With them, we will learn a whole new set of acronyms such as "ACO." And we will likely have to confront the truly difficult questions about how much we do for people at the end of life.

The wrangling and machinations in Washington and at state capitals will grind on. Test cases will wend their way through the courts perhaps going as high as the U.S. Supreme Court. And, unfortunately, many of the root causes of our ongoing health care dilemma will get buried in the fitful mess that is American politics. Yet no matter who's in power, there's a fundamental conundrum that needs clarification: How do we spend less for medical care without sacrificing quality?

Charles R. Meyer, M.D., can be reached at cmeyer1@fairview.org

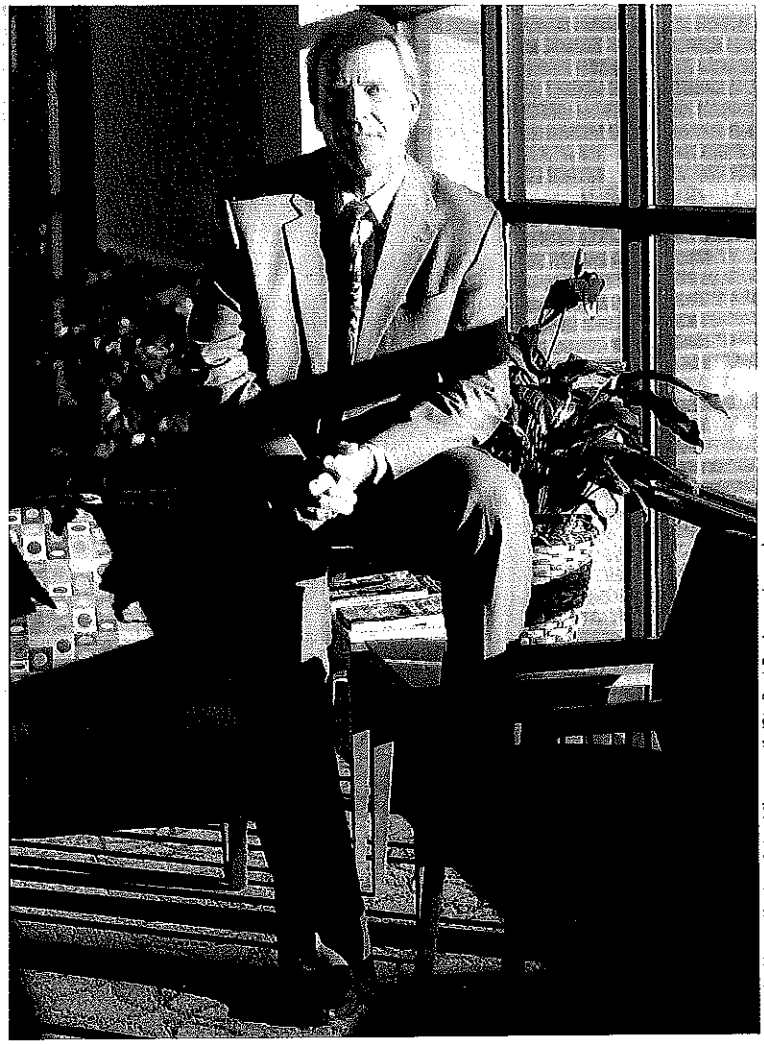


Photo by Nancy Kuehn of the Minneapolis/St. Paul Business Journal

Gary Gosewisch, M.D., in the Urgency Room in Woodbury.

Urgent and Emergency Care

Reinventing the ER

Twin Cities facilities try new ways to offer urgent and emergent care. | BY CARMEN PEOTA

Until recently, hospitals were the only place to get emergency medical care in Minnesota. In the Twin Cities area, that's starting to change. Last fall, physicians from Minnetonka-based Emergency Physicians Professional Association (EPPA) launched the Urgency Room, which offers emergency medical care 12 hours a day, seven days a week in a building next to a strip mall in Woodbury. On February 1, Waconia-based Ridgeview Medical Center opened a stand-alone emergency department in Chaska's new Two Twelve Medical Center. Although there are differences between the two facilities, both will be staffed by board-certified emergency medicine physicians and equipped to provide high-level emergency care. And both say they will be able to charge less than hospitals do for the same services.

The Urgency Room

For years, Gary Gosewisch, M.D., president and CEO of EPPA, was bothered by the wait times in the EDs where he worked. It sometimes took hours for people to get into an exam room. By then, they were often frustrated as well as sick or injured.

Although the six hospitals Gosewisch and his colleagues staffed were constantly seeking to reduce the length of those wait times, the problem persisted. Gosewisch knew that was because what happens elsewhere in a hospital affects its ED. A patient needing blood, for example, might have to wait while the hospital's blood bank dealt with a more critically ill patient in the OR, or a patient needing a CT scan might wait in line behind a sicker inpatient. In addition, he knew that between 75 and 80 percent of the patients treated in a typical ER were discharged, never needing the services of the hospital attached to it.

About four years ago, Gosewisch, came up with the idea of taking the resources of an ED out of the hospital and dedicating them to the care of those patients who didn't need hospitalization. Last October, that idea came to fruition with the opening of the Urgency Room, a 12-bed facility that, like its name implies, is a hybrid urgent care clinic/emergency room and bills itself as an ER alternative.

Set in a refurbished Video Update store, the center looks like a clinic when you first walk into its small waiting room. The treatment area, however, looks more like a hospital ER, with a nursing station surrounded by exam rooms. It has digital X-ray, ultrasound, and CT capabilities; an on-site lab that can handle complex tests; and the tools to do procedures ranging from spinal taps to shocking a heart. And it's staffed by a board-certified emergency medicine physician, paramedic, and nurse as well as imaging and lab technicians. "We can duplicate a lot of ER services," Gosewisch says.

What the Urgency Room can't do is call itself an ED because it's not affiliated with a hospital. As a result, it doesn't receive ambulances, which Gosewisch points out ensures that those patients with high-acuity needs end up at hospitals. They've made arrangements with Regions, United, and other hospitals to admit patients quickly if needed.

Gosewisch says the most difficult aspect of getting the Urgency Room up and running was figuring out how to get paid. "When we went to payers, they thought it was a fabu-

The Urgency Room bills itself as an ER alternative.

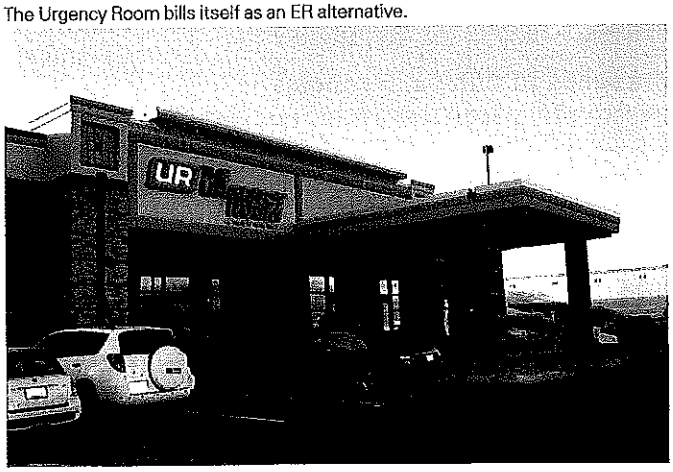


Photo courtesy the Urgency Room

The Hospital Association on Stand-Alone ERs

The Minnesota Hospital Association doesn't have a position on how care should be provided at stand-alone emergency rooms. However, the association opposes stand-alone ERs that are not required to abide by the federal Emergency Medical Treatment and Active Labor Act, which requires hospitals and ambulance services to provide care to anyone needing emergency treatment regardless of citizenship, legal status, or ability to pay.

Photos courtesy of Ridgeview Medical Center

A freestanding ER owned by Ridgeview Medical Center will anchor the Two Twelve Medical Center in Chaska.

lous idea, but they had no idea how to pay us because it's not a hospital, a clinic, or an urgent care." He says it took more than nine months to hammer out a plan, the result of which is that the Urgency Room charges (and insurers pay) 25 to 30 percent less than if the patient went to a hospital ER. Patients who have copays pay what they would for an urgent care visit, rather than an ER visit. He notes that they will see patients once, regardless of their ability to pay.

Another challenge has been getting the word out about what the new facility is. A sign on the building and on Interstate 494 attracts some patients to the Urgency Room, as has a direct marketing campaign. They've also reached out to area clinics' and insurers' nurse lines, which now refer patients. Those efforts appear to be working. "Within a few days of being open, we started to exceed all of our projections," Gosewisch says. "Our patient volumes are running 400 percent greater than what we had anticipated."

Gosewisch admits that success has created its own challenges. "We didn't have enough staff on New Year's day. We were inundated," he says, explaining that some patients waited as long as two hours to be treated. Other than that, the Urgency Room seems to be doing what it set out to: getting patients in and out within minutes.

The Stand-Alone ER

Patients who come to the new stand-alone emergency room in the Two Twelve Medical Center in Chaska, which is home to a number of specialty clinics as well as a pharmacy and imaging center, won't have to know ahead of time whether they need urgent care or emergency care. That's because the new facility offers both.

Although it is staffed and equipped like a hospital ER, it won't treat every patient as an ER case. Nor will it charge ER rates for all visits. "At any time of day, patients can come to our ER and we will classify them as either an urgent care or emergency medicine patient," says David Larson, M.D., medical director of emergency medicine for Ridgeview.

The market provided the impetus for this new approach to emergency care, according to Bob Stevens, CEO of Ridgeview. He says Ridgeview leaders saw a growing population in the southwestern suburbs who had to travel to hospitals in Minneapolis, Edina, St. Louis Park, and Waconia for emergency services.

Believing that the metro area did not need another hospital, they began to explore the idea of a stand-alone ER, and three years ago sent a team to look at one started by Swedish Hospital in Seattle. In addition, they thought about what they could do to be more cost-effective and came up with the plan to combine urgent and emergency care. "The key thing was to work with payers, to make sure they understood how we were going to deliver care in this model, and how we were going to assess patients and provide the appropriate care at the lowest cost," Stevens says. "We've identified those codes that are strictly urgent care, so that patients know and insurers know how we'll triage those patients," he says.

The result is an 18-bed ER with full imaging and procedural capabilities that is open around the clock, 365 days a year that also offers urgent care. The ER will be staffed by

Number of ED Visits Rises

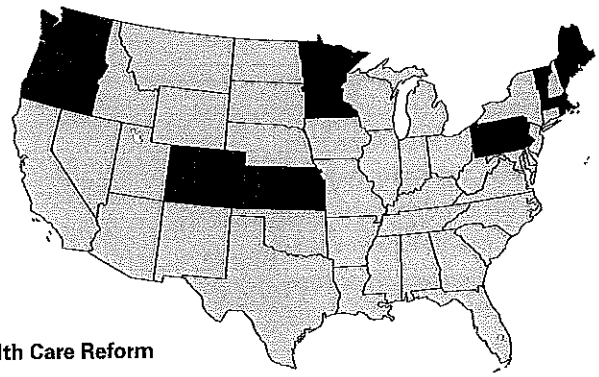
A study published in the August 11, 2010, issue of the *Journal of the American Medical Association* found that an increase in the total rate of annual emergency department visits was almost double what would be expected from population growth. The ED visit rate increased from 352.8 to 390.5 per 1,000 persons from 1997 to 2007. Adults on Medicaid accounted for most of the increase. The authors concluded that EDs increasingly serve as a safety net for the medically underserved.

the same emergency medicine specialists who work at Ridgeview. And pediatric emergency physicians from Children's Hospitals and Clinics of Minnesota will be on hand evenings and weekends as well.

The ER also has processes in place to quickly transfer critically ill patients to the hospital of their choice. It will do so free of charge when the destination is Ridgeview Medical Center, St. Francis Regional Medical Center, Methodist Hospital, Fairview Southdale Hospital, or Children's Hospitals and Clinics of Minnesota in Minneapolis. Unlike the Urgency Room, it will accept ambulances and ambulance staff can contact ER doctors for advice prior to arrival.

Stevens says they tried to think through every issue that might prevent someone from seeking health care in their area. "We think we've removed barriers such as, Are they open or not? Will they take my infant? What happens if this is more serious than I think it is?" he says.

Stevens believes their approach will save both insurers and patients money. "Patients can be assured if it's only something minor," he says, "it will only be an urgent care visit, whether it's Sunday morning at 2 a.m. or Wednesday afternoon." ■



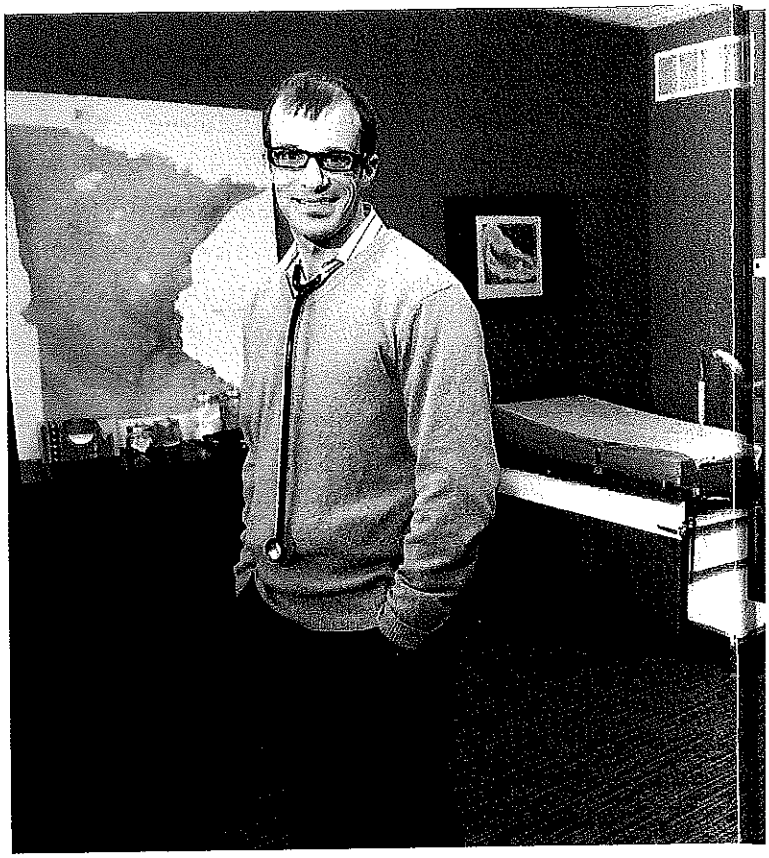
■ Health Care Reform

Ones to Watch

A new report from the National Academy for State Health Policy includes Minnesota among its list of the 10 states best poised to take advantage of the reforms being brought about by the Patient Protection and Affordable Care Act.

States were selected based on their efforts to address five key components of improving quality and efficiency: data collection, aggregation, and standardization; public reporting and transparency of data; payment reform; consumer engagement; and provider engagement. Minnesota was cited for its "landmark" 2008 health care reform legislation, which launched statewide cost and quality data collection, public reporting, a provider peer-grouping project, and public health initiatives.

The report is available online at www.nashp.org/sites/default/files/state.strategies.improve.quality.efficiency.pdf.



■ Health Care Homes

Home Alone

Cold Spring physician Christopher Wenner is the first solo practitioner to obtain health care home certification.

BY J. TROUT LOWEN

Christopher Wenner's approach to medicine might surprise some of his fellow physicians and make a few others feel nostalgic. Wenner, who opened a solo family practice in the town of Cold Spring outside of St. Cloud a year ago, allots a minimum of 30 minutes for each patient visit, refers to his reception area as the "no-waiting room," and even makes house calls.

To be able to provide this sort of care in a way that is affordable for his 440 patients, however, Wenner has had to take on a few additional job titles: receptionist, nurse, biller, and coder. "I have no staff. I do everything myself," he says. "It's Marcus Welby in 2010 embracing technology."

With the help of an electronic medical record (EMR) system, Wenner has built his practice around a care coordination model, which enabled his clinic to become one of the first in the state—and the only solo practice so far—to be certified as a health care home by the Minnesota Department of Health.

Developed as a result of Minnesota's 2008 health care reform law, health care homes, also known as medical homes, emphasize an approach to caring for patients with complex or chronic ill-

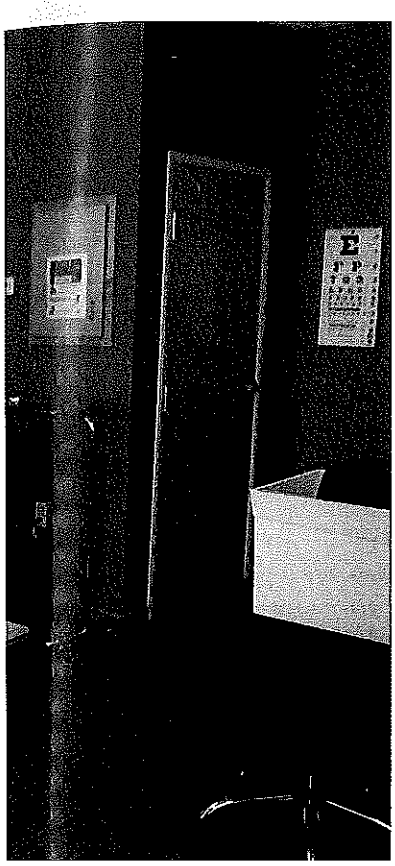


Photo by Steve Wewerka

Christopher Wenner wears many hats in his Cold Spring practice: physician, nurse, receptionist, coder, and biller.

nesses in which the physician or another provider coordinates the services of a team of clinicians, nurses, therapists, pharmacists, and others in exchange for a monthly per-person payment. As of the end of 2010, the state had certified 47 clinics as health care homes. Most are affiliated with large health systems.

Wenner decided to seek certification because he already was providing coordinated care to all of his patients, not just those with chronic conditions. "My practice is really centered on the medical home model," he says. "I know my patients well and what their needs are."

Wenner knows his patients because he connects with them not only at the clinic, but also in their homes, online, or by telephone. "I really want to provide unfettered access to my patients, which I think is key to the medical home philosophy."

In addition to offering telephone and online consultations, Wenner relies on his EMR to track his patients' lab results, follow up on referrals, communicate with other members of a patient's care team, and submit billing and coding information.

Growing Pains

Although Wenner has figured out how to harness technology in order to provide the coordinated care necessary to become a health care home, he's still struggling with how to get paid for doing so. He says the state's reimbursement process for care coordination is cumbersome.

Currently, physicians use an assessment tool to group patients who might qualify for health care home payment into one of four tiers based on the number of major chronic condition categories that apply. Each tier has a set per-person per-month reimbursement rate. Physicians invoice the state monthly based on the services they provide to qualified Medical Assistance patients. The care coordination fees range from $10.14 per patient per month for the least complex cases to $60.81 for the most complex.

Wenner says it's hard to justify spending so much time on paperwork, given the size of the payments. "If being a medical home is a plaque and a pat on the back and that's it, it's somewhat of a hollow reward," he says.

Participating in the program is especially difficult for clinics like his that have no or limited billing staff. "I think I should be recognized for the care coordination that I do," he says. "I think primary care is grossly underpaid in the realm of medical specialties, and that's a big part of it. I'm just frustrated that it's not more straightforward."

Changes in Sight

Carol Backstrom, who is overseeing the implementation of health care reform for the Minnesota Department of Health, says she understands Wenner's frustration with the process.

Backstrom says the Department of Human Services and its advisory group looked into the reimbursement system but decided not to go with a less-detailed one because they thought it might discourage providers from taking on patients with more complex health problems. "The intent is really to reward providers for taking on more complicated patients. The more comorbidities a patient has, the higher the reimbursement will be for care coordination," Backstrom says. "While it may feel cumbersome, this is also an acknowledgement that not all patients are alike."

Backstrom acknowledges that Medical Assistance, the state's Medicaid program, is currently the only payer required by law to pay certified health care homes for care coordination. "Certainly it was the intent of the Legislature that this would be an all-payer model," Backstrom says. "I think it's going to take some time to figure out how each payer is going to approach this."

It appears things are beginning to change. Beginning this summer, certified health care homes in Minnesota will be able to apply for care coordination payments for Medicare patients as well as for those on Medical Assistance. Wenner says this move will likely double the number of patients in his practice who qualify for such payments.

Added Value

Despite his frustration with the reimbursement process, Wenner says he will likely seek to recertify his clinic as a health care home next year. He expects the state's system will improve. And he sees an added benefit to being a medical home. "It's a marketing tool for me," he explains. "And now that I'm trying to establish my practice, it's nice to be able to say that I'm the only certified medical home in central Minnesota." ■

State Selected for CMS Demonstration Project

In November, Minnesota was one of eight states selected to participate in a Centers for Medicare and Medicaid Services demonstration project on the effectiveness of the health care home model.

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Two area investigators are exploring new ways to potentially reduce malpractice risk.

Reducing Malpractice

Due Process

Could better use of evidence-based guidelines result in fewer malpractice cases?

BY JEANNE METTNER

Although evidence-based guidelines can serve as a reliable compass for clinical decision-making, physicians have sometimes regarded them as obstacles to professional autonomy. Now, some physicians suggest use of accepted guidelines might benefit them as well as their patients.

In May of 2009, the American Medical Association asserted that use of evidence-based guidelines could provide a "safe harbor" for physicians, protecting them from liability in medical malpractice claims. In September of that year, President Barack Obama authorized $25 million for projects demonstrating that that indeed was the case. The grants, which the Agency for Healthcare Research and Quality (AHRQ) awarded last summer, went to seven demonstration projects, two of which are in this region.

More Talk, Less Risk

Stan Davis, M.D., an obstetrician at Fairview Health Services, is leading one of the projects. Davis and his group received $2.9 million to look at whether the use of bundled evidence-based guidelines and training to improve communication among providers and patients are associated with a reduction in preventable perinatal harm and in the number of malpractice claims.

Davis's group, which, is part of a national collaborative to improve patient safety around childbirth, will collect and analyze data from 16 hospitals in 12 states. To be in compliance with a bundle, providers in those hospitals must document in the patient's medical record that they took all the required steps prior to an intervention. For example, to be considered in compliance with the elective labor induction bundle, the provider must have been certain that gestational age was equal to 39 weeks or more, that fetal status was normal, that the mother had had a pelvic exam before receiving oxytocin, and that hyperstimulation of the uterus was recognized and managed.

Davis and his colleagues will also looking at whether training using the AHRQ's TeamSTEPPS curriculum, which is designed to improve communication among health care professionals and patients, improves outcomes.

Data from the participating hospitals will be compared with that from eight hospitals that are not participating in the two interventions. Davis believes both efforts will result in improved care and reduced risk. "It seems a no-brainer that when you are providing better care, you will reduce your medical malpractice claims," he says.

Gentle Reminders

Another AHRQ grant recipient is Wendell Hoffman, M.D., an infectious disease specialist and patient safety officer with Sanford Health in Sioux Falls, South Dakota. Hoffman and his colleagues at Sanford have been awarded $294,000 to explore the feasibility of using unsolicited patient complaints to determine which physicians are most at risk for medical liability.

The grant has two arms. The first will help determine whether Sanford should implement a patient reporting system similar to one developed at Vanderbilt University. The second arm will explore whether there is a correlation between patient complaints and the context of patient care. "The national call is to involve patients in their own care," Hoffman says. "What better way to really listen to them, learn from them, and act on their behalf?"

In the Vanderbilt model, "messenger physicians" confidentially alert physicians

who are the subject of patient complaints and, therefore, may be at risk for being sued for medical malpractice. The idea is that informing physicians of complaints against them gives them an opportunity to learn from the experience and to change their practice style.

Hoffman is currently training physicians to be messengers. "Studies at Vanderbilt have found that the messenger physician's conversation with the at-risk physician leads to a 70 percent self-correction within a 12-month period," he notes. "Many of the issues that lead to higher risk are not quality-related in the traditional sense but instead are factors that revolve around patient-physician communication—things like not listening, not treating patients like human beings."

If Sanford decides to institute a patient advocacy reporting system, officials will track patient complaint data submitted to its 30 hospitals, including those in Minnesota, over four years. They also will enlist messenger physicians to work with physicians who may be at risk and monitor the number of malpractice claims filed as well as metrics on a hospital and clinic safety survey.

The Legal Realities

Whether such initiatives prevent or reduce malpractice claims remains to be seen. "The key connection between quality standards and professional liability claims is the patient outcome; if following quality standards, in fact, reduces adverse outcomes, liability claims filed will likely also decline," says Libby Lincoln, J.D., senior vice president and general counsel at MMIC Group, a Minneapolis medical professional liability insurance provider. Lincoln also notes that failure to follow quality standards does not necessarily indicate physician negligence. "In a courtroom, a physician will have to prove that the care rendered was appropriate for a particular patient; individual treatment may require diverging from the usual standards," she says.

Mark Whitmore, J.D., chief operating officer and managing partner with Bassford Remele, believes the question of whether evidence-based medicine can reduce malpractice claims needs to be framed differently. He says the question should really be, Does evidence-based medicine make medical decision making easier to defend once a claim exists? "I think the answer is, yes it does, particularly if that medical decision-making process is documented in the patient's chart." But Whitmore cautions that doctors will have to do more than follow guidelines. "They are treating human beings and every patient is different," he says. "In the end, it's their professional judgment that is most important."

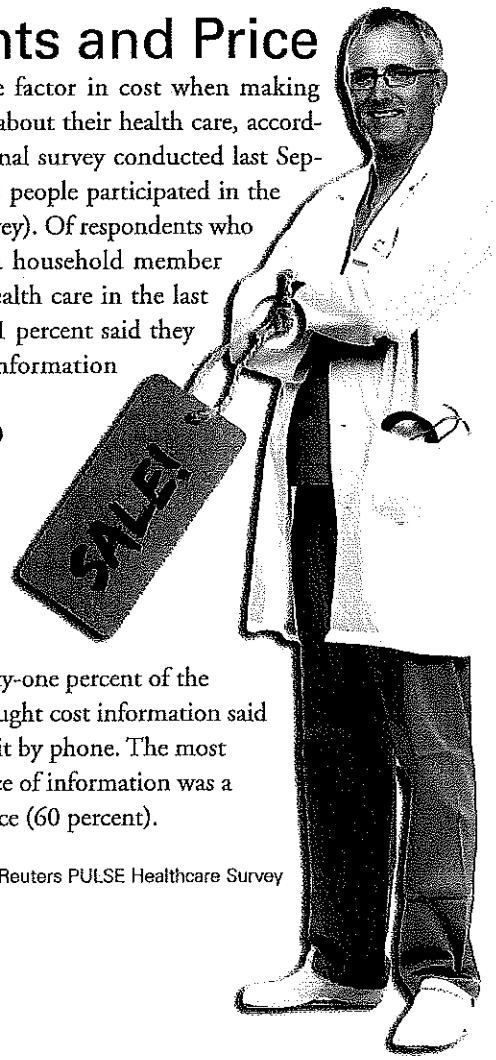
Davis, too, acknowledges that following an algorithm alone won't provide physicians with immunity from lawsuits. He says physicians need to maintain a paper trail that explains the chosen care process and communicate with the patient about their clinical decisions. "It's always thought that if you follow the guidelines, you will be better off in terms of not being sued or having a better outcome when you get sued," he says. "But often when a malpractice claim is filed, many physicians are unable to submit evidence that documents their thinking process for making particular clinical decisions."

What Matters Most

Both Davis and Hoffman say that using and documenting the use of evidence-based guidelines is only part of what will keep medical liability claims, and the costs associated with defending them, in check. "What matters the most to patients is when physicians sit down and actually converse with them, show concern and empathy toward them," Hoffman says. "To know that another human being cares for them is still the most important thing to patients. If a physician is doing their best to demonstrate that connection, then patients are more likely to be forgiving—and less likely to sue." ■

Consumer-Driven Care

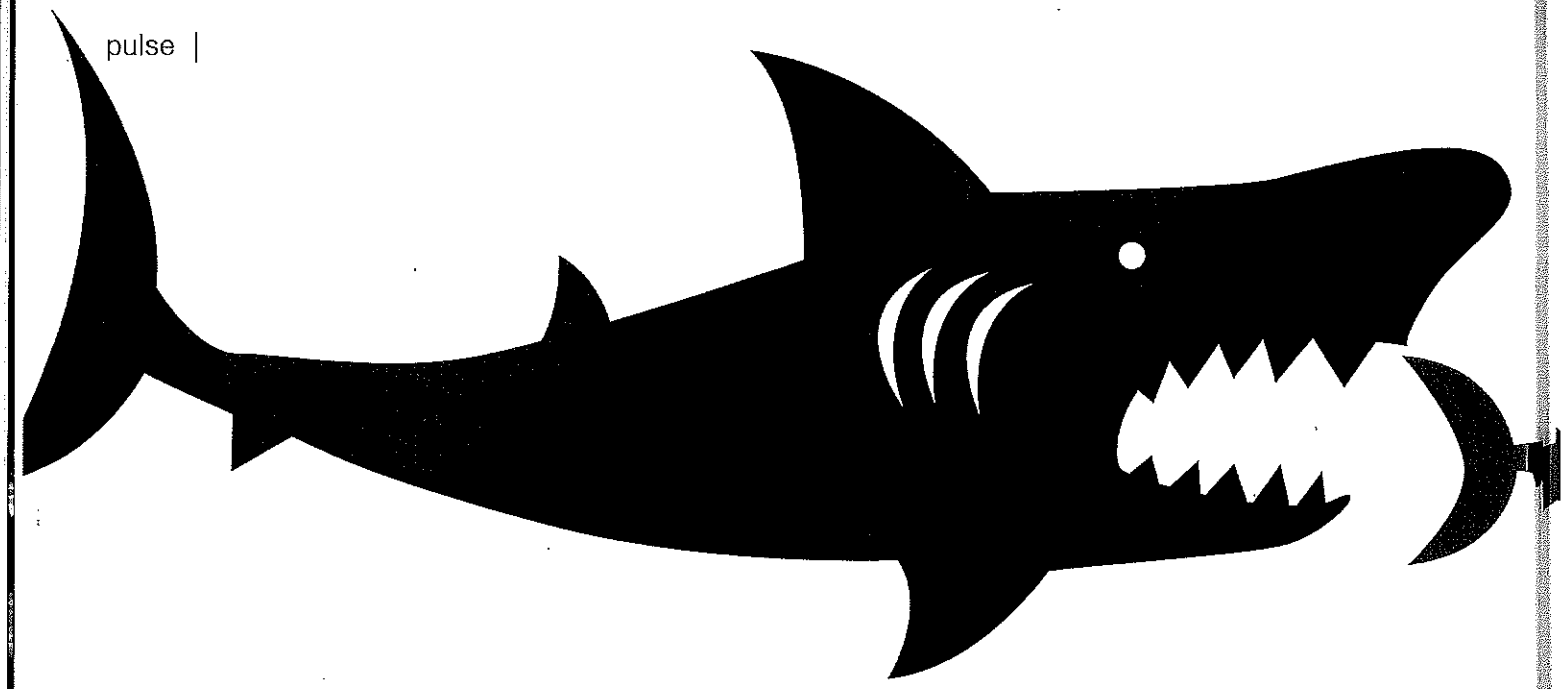
Patients and Price



Few people factor in cost when making decisions about their health care, according to a national survey conducted last September (3,018 people participated in the telephone survey). Of respondents who said they or a household member had sought health care in the last six months, 11 percent said they first sought information about price.

Of those, 70 percent said it influenced their decision about whether to follow through with treatment. Sixty-one percent of the people who sought cost information said they obtained it by phone. The most common source of information was a physician's office (60 percent).

Source: Thomson Reuters PULSE Healthcare Survey



■ Health Care Consolidation

Big and Getting Bigger

What's behind the latest round of health care mergers? | BY KIM KISER

Orthopedic surgeon Brian Nelson's practice was by all measures a success. Since it opened in August of 1990, Physicians Neck and Back Clinics had grown to 16 physicians with six clinics in the Twin Cities metro area. "We were doing well, we weren't under financial pressure," he explains. "We were not looking to sell. It wasn't on our agenda."

So why, then, did the practice sell its assets to HealthPartners in December of 2009? In a word, uncertainty. "We knew health care reform was coming one way or another," Nelson says. "What's going to happen in health care reform, virtually by necessity, is that a few people will make some very important decisions. We didn't feel Physicians Neck and Back was big enough to even have a seat at that table. We don't have size or political clout. We felt HealthPartners did."

Nelson's clinic isn't the only one to have reached such a conclusion. A number of smaller physician groups and hospitals have joined recently with larger organizations, touching off a merger trend the likes of which hasn't been seen since the mid-1990s, when the Clinton administration attempted to overhaul health care. St. Paul Heart Clinic, Camden Physicians, North Country Health Services in Bemidji, and Lakeview Hospital in Stillwater are among others that have merged or signed letters of intent to merge with larger health systems within the last 18 months. "I would say there's definitely a trend," says Allan Baumgarten, a Minneapolis health care consultant who publishes annual reviews of the health care markets in 12 states. "I see it here and in markets across the country."

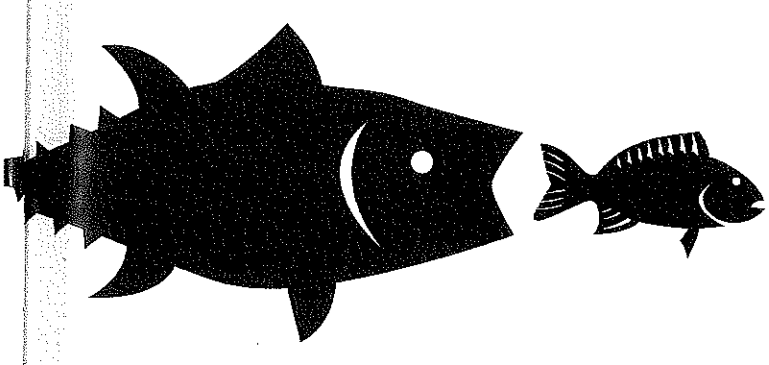
Unlike in the 1990s, when much of the consolidation involved hospitals and health plans in urban areas purchasing primary care clinics in order to expand their referral base, many of the mergers happening today involve specialty practices and rural providers seeking to join larger groups. Not only that, but entire health systems also are being absorbed. "It's creating some interesting situations," Baumgarten says. "The traditional geographic boundaries in health care are eroding."

Sanford Health, which is based in Sioux Falls, South Dakota, and Fargo, North Dakota, for example, expanded into northwestern Minnesota with its purchase of MeritCare in 2009. It now has 30 hospitals and 111 clinics in six states. Integrity Health Network was formed in 2010 when Northstar Physicians Network and Northland Medical Associates merged. Based in Duluth, the network has 160 primary care and specialty physicians in 40 clinics throughout northern Minnesota and northwestern Wisconsin. Essentia Health, also in Duluth, expanded its reach when it affiliated with Innovis Health in Fargo in 2008. It now has 17 hospitals and 64 clinics in four states and is expected to grow even larger in the coming year. "Our phone continues to ring," says Peter Person, M.D., CEO, of Essentia Health. He says Essentia is currently in discussions with one physician group and several small hospitals. "Hospitals and clinics are trying to plot out their future," he says, and they're finding that going it alone is no longer an option.

Letter of the Law

Person, who in 1997 was involved in the merger between St. Mary's Medical Center and Duluth Clinic that created SMDC—one of the components of Essentia Health, says what's different this time is that health care reform has become law. "The Clinton plan failed, but this is a done deal, and it's hard to ignore."

He notes that several provisions in the 2010 Patient Protection and Affordable



Care Act are prompting hospitals and clinics to think hard about how they will deliver care in the future. One is the fact that many more people are likely to have health insurance, which could drive up demand for services. Another is a requirement that different payment and delivery models be tested under Medicare—specifically, accountable care organizations (ACOs). Under the ACO model, the details of which have yet to become clear, hospitals and clinics will be asked to work together to provide more integrated, coordinated care and accept risk in exchange for receiving a share of the resulting cost savings.

Person says the reform legislation, increasing competition, and growing financial pressures prompted Essentia, which was created in 2004 as the financial oversight organization for SMDC, to change its purpose and structure. As of September 2010, all of the entities under the Essentia umbrella—SMDC, Innovis Health, and Brainerd Lakes Health in Brainerd—began operating as a single entity. "From a clinical perspective, the reality was we were much better off ... using our resources together than trying to replicate them in Brainerd, Detroit Lakes, and Fargo," he says. "No one wants the oversight model any more. They want Epic [the electronic medical record system], they want telemedicine, they want clinical support, they want technology, they want all the things that will make their ability to provide outstanding care continue."

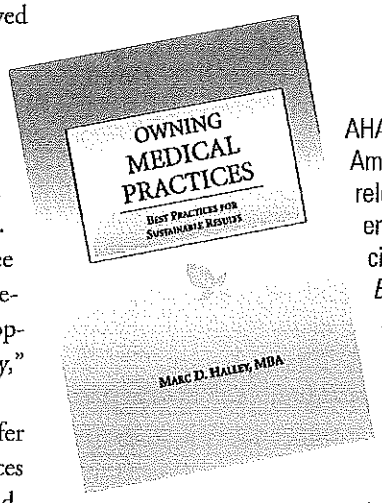
Some of the communities served by facilities within the Essentia system are already starting to see changes. For example, Brainerd is now served by three oncologists rather than one. Person adds that they will soon bring more cardiology services to Brainerd and expand electrophysiology in Fargo. "Over time, people will see more services, more comprehensive services, and more opportunity to get care locally," he says.

Wanting to be able to offer their community more services was one reason why the leaders of North Country Health Services, which consists of a 108-bed hospital, a nursing home, an assisted living facility, a home health agency, and a durable medical equipment company in Bemidji, decided to become part of Sanford Health. "Certainly health care reform was part of the discussion," says Paul Hanson, president and CEO, "but it really came down to us as an organization asking ourselves, Do we want to grow and develop into a regional player or are we OK with surviving but being a treat-and-transfer center?"

In order to become a regional player, North Country needed a network of physicians to provide services and referrals, and money to invest in information systems and other offerings. "We examined the cost of developing an integrated system on our own. But the cost of the physician component alone was prohibitive," Hanson says.

Because Sanford employed 98 percent of the physicians in the community, North Country approached them and in November 2010 signed a letter of intent to merge. The acquisition of North Country will make Bemidji Sanford's third hub in Minnesota. In exchange, Sanford will invest $75 million in facilities, services, and technology over the next 10 years. As a result, North Country will gain access to Sanford's electronic medical record system and be able to expand or add hospital-based services such as interventional cardiology, oncology, orthopedics, and obstetrics/gynecology. "If you don't have the support of your local physicians for recruiting and retaining specialists, you're wasting your resources," Hanson says. "There has to be a relationship with the physicians to make that possible."

Person agrees. "Hospitals and clinics fighting for patients or services in rural areas doesn't work," he says. "The economics of rural health care are such that collaboration is really important." And, he says, working together is the right thing to do for patients. "I grew up in Morris, Minnesota, and it was hard in the late 50s and early 60s to get comprehensive medical care," he explains. "Today, our biggest challenges are winter driving and being 50 miles from the nearest physi-



AHA Press, the publishing arm of the American Hospital Association, has released a new book aimed at leaders of hospitals that employ physicians. *Owning Medical Practices: Best Practices for Sustainable Results,* by Marc D. Halley, M.B.A., addresses the challenges of employing physicians and offers solutions to common problems that can hinder acquisitions and ongoing operations of medical practices. To learn more go to www.healthforum.com/ahapress.

Second Time Around

Although the consolidation that took place among hospitals, clinics, and health plans during the mid-1990s led to the creation of some of Minnesota's largest health systems, the mergers weren't always tenable arrangements. In some cases, health systems closed clinics just a few years after acquiring them; in others, physicians cut themselves loose after a brief period.

"The major difference between what's happening now and what happened in the '90s was that hospitals for the most part demonstrated that they didn't have a clue how to run physician practices," says Allan Baumgarten, a Minneapolis health care consultant. "There was a lot of unhappiness about the results of all those acquisitions."

Peter Person, M.D., president and CEO of Essentia Health in Duluth, was involved in the merger of Duluth Clinic and St. Mary's Medical Center in 1997. He says the employment model that was used at the time guaranteed physicians income for a certain number of years with no expectations about productivity. In addition, some practices were bought at inflated prices. "The economics were bad," he explains. The relationship between the physicians and administrators wasn't good either. "Physicians make great partners," he says, "but kind of lousy employees."

So why should the situation be different this time around? "It seems hospitals have learned a lesson about how to do a better job of working with physicians," Baumgarten says. "That or the physicians think the situation has become so difficult that they have to suck it up and take the best deal they can get."

Person believes administrators have learned how to better communicate with physicians. When he talks to physicians who work for Essentia, he starts with clinical issues and then moves to administrative and business issues. Another reason he believes the mergers will work better this time around is because they have to. "There's no getting around it. Health care reform has passed," he says. "There's a lot of background noise about whether it will be unfunded or changed legislatively. But most of us who are following it closely don't think that will happen. There are no other good solutions. ... If you're an administrator and you're looking to the future, the writing is on the wall."—K.K.

cian. Having technology such as telemedicine will make physicians available in smaller communities."

Is Bigger Better?

Although being part of a larger system can benefit hospitals—and patients—especially in greater Minnesota, Baumgarten also sees a downside. "There's potential for good and bad," he says. "Being part of a larger organization can really raise the bar in terms of quality of care, coordination of care, and efficiency," he says. "On the other hand, large organizations, especially ones that control 40 percent or more of the local market can use that market position to raise their prices almost at will."

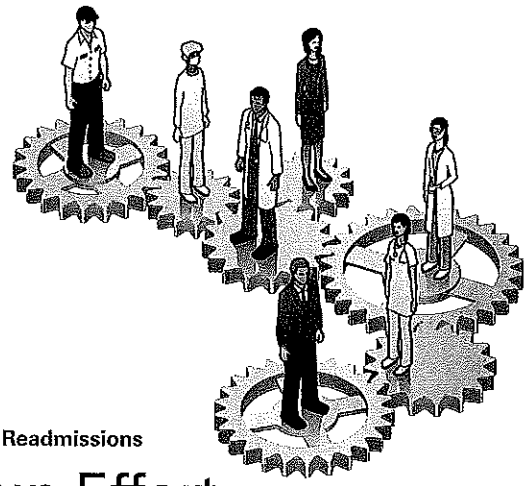
As an example, he cites a study by Paul Ginsburg, director of the Center for Studying Health System Change, a Washington, D.C., policy research organization, that examined how certain provider systems in California used their muscle to drive up prices. Another study by Ginsburg's group found some hospital organizations in Milwaukee were demanding 200 to 300 percent of Medicare rates in their contracts with health insurers because they had such a large share of the market. That same study found some physician groups in rural Wisconsin were being paid rates that on average were 176 percent higher than Medicare rates because of limited competition.

Baumgarten also questions whether the ACO or shared savings models that are fueling some of the consolidation will actually deliver on their promises. "The idea is that if you are more efficient in providing and coordinating care, and there are savings compared with some benchmark, then the providers will share in the savings. But if you're already an efficient group, it's not likely that there will be a lot of savings to share in," he says, adding that he wonders whether Minnesota health systems, which are already known for their efficiency, will participate in ACO pilot projects because the cost of developing them might outstrip the potential for savings.

No Hidden Downside

Although Brian Nelson admits he and others at Physicians Neck and Back Clinics had trepidation about joining HealthPartners, he doesn't think small independent clinics and hospitals need to fear consolidation. "We were a small business joining a big corporation. We were worried about whether we would lose our independence, whether they would treat us with respect, whether we would feel crushed like an ant under somebody's foot," he says. "It hasn't been that way at all."

Nelson says being a part of HealthPartners has brought him and his colleagues more patients. It also has provided them with access to services they didn't have before such as IT and marketing. In addition, they have been able to offer HealthPartners something it didn't have before—a fitness approach to treating back pain. "It's a good example of the whole being greater than the sum of the parts," he says. ■



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■ Hospital Readmissions

Group Effort

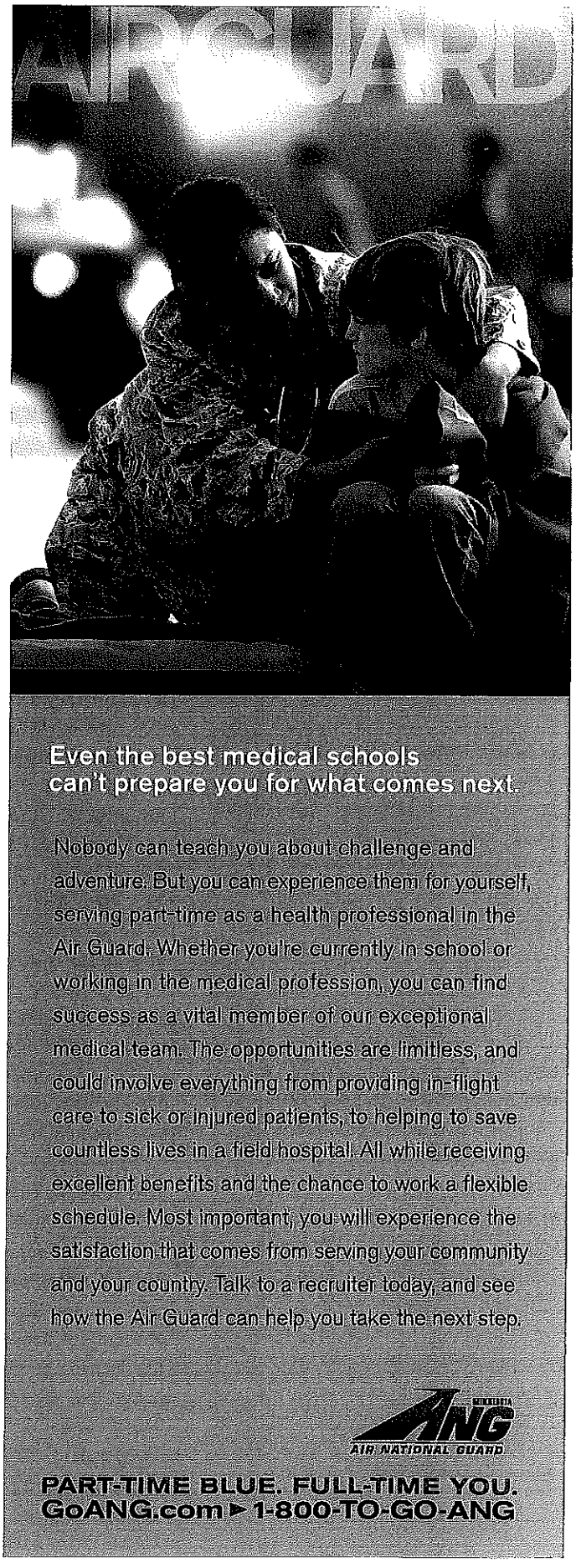
A hospital, medical group, and payer work together to keep patients from needing to be rehospitalized. | BY CARMEN PEOTA

A year ago, Barry Baines, M.D., associate medical director of UCare, approached Fairview Physician Associates' chief medical officer, William Nersesian, M.D., M.H.A., about the high number of Medicare patients who were being readmitted to hospitals for reasons that were avoidable. Sometimes, patients hadn't filled prescriptions because they couldn't afford them. Some never saw their primary care doctor for follow up because they didn't have a ride to the clinic. Others weren't eating right. "It's not that a patient with heart failure went home and developed a rare or new condition," Nersesian says. "Most patients who come back to the hospital do so because of something that could have possibly been foreseen."

So the leaders of the health insurance company and the physician group sat down to talk. They quickly realized that all of the players involved in these patients' care needed to be involved if they were to reduce readmissions. They designed and last February launched a program for patients enrolled in UCare's Medicare Advantage plan.

The gist of it is plain old teamwork. Achieving that, however, has taken some forethought. Key components are having a pharmacist from the hospital spend time (above and beyond what Medicare requires for medication reconciliation) with the patient talking about their medications; a nurse case manager identify problems that might interfere with the patient's recovery and call the patient within two days of discharge to make sure they get to their primary care doctor for follow up; and a primary care physician see the patient within five days of discharge. In addition, the hospital provides a discharge summary to the patient's primary care physician within two days of discharge. UCare pays physicians a $50 bonus (beyond the amount Medicare pays for a hospital follow-up visit) when they see patients within five days.

Nine months into the project, the number of readmissions at Fairview Southdale Hospital was down by 30 percent over last year. This year, the approach is being extended to Fairview Ridges Hospital in Burnsville. And Nersesian and others are sharing what they've learned through an Institute for Clinical Systems Improvement collaborative. ■



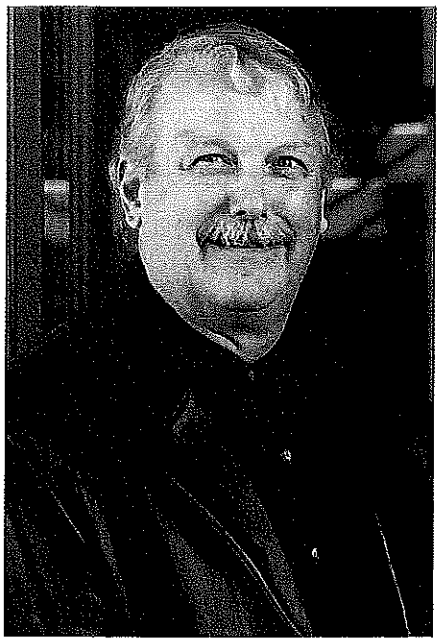


Photo by Steve Wewerka

David C. Thorson, M.D.
Chair, Board of Trustees

Reaching the Tipping Point

Should physicians go first in moving toward new payment models?

At Family Health Services Minnesota, where I practice, I've been trying to move our clinic toward payment mechanisms that will allow us to take a more team-based approach to care and reward us for keeping our patients healthy.

But let me tell you it hasn't been easy. I've heard the theories behind the accountable care organization, shared-savings, medical home, and pay-for-performance models. Sure, they sound good on paper, but in the clinic, trying to implement them is like playing a game of chicken. Payers say they'll pay us differently if we change the way we deliver care, and we say we'll change how we deliver care if they pay us differently. So far, there's been little movement on either side.

The reality is that payment reform is difficult because you still have to rely on office visits (the currency of the current fee-for-service system) to pay the bills, while at the same time try to implement new approaches that don't yet generate revenue. It's a little like trying to repair a hole in your boat while you're at sea—you have to do the work of sailing, fixing the hole, and bailing water all at the same time, so you don't go under.

We've felt that way about the DIAMOND project, an approach that pays primary care providers to manage patients with depression. We hired care managers to call patients who were identified as having depression and ask if they are taking their medicine, having side effects, getting better, or need a treatment change. For us, DIAMOND has been a clinical success—patients with depression have gotten to remission more rapidly. But it has also been a payment headache. The problem is not all insurers participate in DIAMOND. Medicare, Medicaid, and self-insured health plans do not. Because of this, care management services are not covered for about 40 percent of eligible patients. This left us in a situation where we have the ability to provide a great service that many patients either have to pay for out of pocket or do without, or we have to give it away for free.

Large integrated systems such as Fairview, Allina, and Mayo may be able to forgo reimbursement for these services during the transition between payment models. But as a physician-owned primary care practice with 70 physicians, we can't afford to do that and have been searching for a way to subsidize the cost by increasing our contracted revenues for our general business expenses.

So the big question still remains: Should physicians go first in moving toward new payment models? I think we should take what steps we can because it is the right thing to do for our patients. In addition, Minnesota's insurers seem to be more open to structuring payment arrangements that allow physicians to share in savings related to reducing hospitalizations and unnecessary tests. As large systems enter into such arrangements, smaller clinics are likely to follow.

In addition, the 2010 Patient Protection and Affordable Care Act should help move us toward universal health insurance coverage and more standardized benefits. This should make it easier to avoid the payment pitfalls we've experienced with projects such DIAMOND, provided such services are included as a standard benefit.

Now is a critical time for practicing physicians to engage in dialogue with payers and purchasers about new payment models. I'm optimistic that if we all focus on doing the right thing, we can make payment reform a reality.

MMA Finds Significant Errors in Medica's Physician Ratings

The MMA launched a media campaign in January to educate the public about the unreliability of Medica's Premium Designation Program, the first program to attempt to rate individual physicians in Minnesota.

The MMA supports measuring the performance of clinics and physicians at the group level but opposes Medica's program because of its methodological flaws and potential to harm the reputation of individual physicians.

The ratings program, developed by United Healthcare, attempts to measure the performance of board-certified physicians on measures of care quality and cost efficiency. Physicians are first evaluated on quality. If they meet quality standards, they are further evaluated for cost efficiency. Physicians can receive up to two stars, with two stars indicating that they met the quality and cost-efficiency criteria. One star shows that they only met the quality criteria; no stars signifies that a physician failed to meet the quality criteria. Medica rated approximately 9,400 Minnesota physicians.

The MMA asked Medica to delay implementation of the rating system after reviewing an extensive analysis of the program by J. William Thomas, Ph.D., an economist and expert in the measurement of provider performance from the University of Southern Maine. A review by researchers from RAND of a similar physician-rating system in Massachusetts found that 22 percent of physicians were likely to be misclassified.

To read J. William Thomas's full analysis, go to www.mnmed.org/medica.

Thomas found that on the whole, the program was well-designed and met most of the certification criteria currently specified for such programs by the National Committee for Quality Assurance. But he also found three shortcomings: a lack of reliability testing to assure statistical accuracy of the results, lack of Minnesota physician involvement in the development of the system, and an inadequate amount of time for physicians to review their rating and the data underlying it. Because of those deficiencies, Thomas concluded in his report to the MMA: "In spite of the program's strengths, however, its implementation by Medica has several shortcomings, and these, if left uncorrected, could compromise the program's long-term objectives of improving quality and controlling costs."

MMA leaders shared Thomas's concerns with Medica in December and January, as well as reports from physicians whose data contained errors. For example, Medica penalized one physician for failing to order a Pap test when, in fact, the patient had had a total hysterectomy nine years earlier. Medica penalized another for failing to do a strep test when the test had indeed been completed.

Because Medica had not informed the MMA as to whether it still planned to roll out the ratings by the middle of January, the MMA decided to go public with its concerns just days before the scheduled launch on January 19.

A media campaign by the MMA resulted in coverage in newspapers and on radio and television programs throughout Minnesota. However, it did not stop Medica from rolling out the ratings as scheduled. The MMA has hired an attorney to look into legal options for halting the program, although given the expense, a legal challenge is unlikely.

4 Things about Medica's Rating Program the Media Got Wrong

The MMA's efforts to delay Medica's Premium Designation Program received extensive media coverage in January. Here's a look at a few of the false claims in those stories.

1. This is a helpful tool for patients.
Given the unreliability of the data and the good chance that physicians could be misclassified, relying on this rating system could lead patients astray. This information would be most useful if given confidentially to physicians so they could review their patterns of care and utilization of services.

2. Data are incorrect for only a small percentage of physicians.
Medica claimed in media reports that only 150 physicians reported errors. That figure, however, only represented the formal requests for reconsideration of results. The MMA has received reports that have yet to be filed. In addition, considering the significant time it takes to review the data and compare it with documentation in patients' charts, it is likely that only a small percentage of physicians even checked their data in the limited time allowed by Medica.

3. Physicians simply want to stand in the way of performance measurement and reporting.
There is no basis for such a comment. The MMA was a founding member of MN Community Measurement and has supported state and federal efforts to expand performance measurement.

4. The MMA thinks it is "unfair" to rate doctors.
The MMA supports transparency and the public reporting of physician performance at the group and clinic level. The problem is that Medica chose to bring forward a program with known errors.

From the President's Blog

The following is an excerpt from MMA President Patricia Lindholm's blog entry from January 20. It was posted after she and other MMA leaders spent a busy week talking to the press about Medica's individual physician rating program. The MMA launched the President's Blog last October. To read the full entry or subscribe to the blog, go to http://mmapresident.blogspot.com.

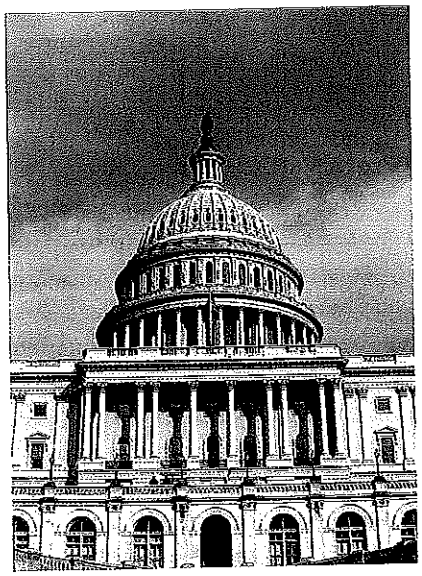
You may have seen or heard me, Past-President Ben Whitten, and others representing the MMA in the press recently. We have been working hard to put forward our members' concerns about Medica's flawed individual physician rating program.

Despite our efforts to work with Medica behind the scenes and in public, Medica decided to ignore the feedback of physicians and move forward with its program.

The MMA is concerned about known errors in the data, the inadequate time allowed for review and validation, and the insufficient statistical testing of the results. Medica's program could harm physicians' reputations, undermine the physician--patient relationship, and mislead its members and purchasers of health insurance. We felt the MMA's request that Medica address our concerns was reasonable and justified. I am saddened that Medica chose to ignore our concerns and dismiss our overtures to work together. Minnesota has had an admirable culture of collaboration between health care providers and insurers in the past. To ignore the input of physicians is not in that spirit.

Medica has truly missed a chance to work with physicians to design a useful tool and strengthen its relationship with the physician community.

MMA Opposes Repeal of Health Care Reform Law



In January, the MMA sent a letter to Minnesota's congressional delegation announcing that it was opposed to attempts to repeal the Patient Protection and Affordable Care Act (ACA) that was signed into law last year.

The letter was sent to all eight of Minnesota's members of the U.S. House of Representatives after the MMA's executive committee voted to oppose efforts to repeal the ACA. The House voted in favor of repealing the law on January 19.

Although the MMA did not take a position on the ACA while it was being debated in Congress last spring, it decided to oppose repeal of the ACA because many of its key provisions align with MMA policies and the MMA's vision for reform. For example, the MMA supports an individual mandate for the purchase of health insurance, insurance reforms, government subsidies to help low-income individuals purchase insurance, and reformed payment systems such as medical homes.

Furthermore, the MMA believes that it would be more effective to focus on fixing specific problems in the ACA rather than repealing the law and having to start from the beginning.

"In reviewing the provisions of the ACA, the MMA has found many items that are aligned with the recommendations in our 2005 report [Physicians' Plan for a Healthy Minnesota]," wrote MMA President Patricia Lindholm, M.D., in the letter sent to the Minnesota delegation. "There are also some provisions in the ACA that cause us some concern. But the MMA remains committed to achieving insurance coverage for all Americans, eliminating insurance industry abuses, changing payment systems to reward high-quality, efficient care, and reducing health care costs. Although imperfect, the ACA begins to address each of these goals, and repealing the bill will only slow down this country's progress in tackling these challenges."

Your dues allow the MMA to keep fighting for you

The dues deadline for 2011 membership was January 31. If you still have not contributed, please call MMA membership staff at 800/342-5662, ext. 747, or 612/362-3747, or email duesprocessing@mnmed.org.

Tracking Reform

Federal Reform

Nine Changes to Expect in 2011

Minnesota physicians can expect the following changes as a result of passage of the Patient Protection and Affordable Care Act in 2011:

1. The "doughnut hole," which affects some Medicare Part D recipients, will begin to be closed with discounts on brand-name drugs and subsidies for generic drugs.
2. Medicare will pay a 10 percent bonus to primary care physicians, if 60 percent or more of their charges are for office, nursing facility, and home visits. General surgeons serving in underserved areas will also see a 10 percent Medicare bonus payment.
3. Medicare beneficiaries will be entitled to free annual checkups; certain screenings also will be free.
4. The Center for Medicare and Medicaid Innovation will evaluate new methods of providing care that reduce cost while maintaining or improving quality.
5. The Community-Based Care Transitions Program, designed to reduce hospital readmissions, will be tested.
6. Insurance companies must spend between 80 and 85 percent of their revenue from premiums on medical care and improvements for patients.
7. The government will begin eliminating overpayments to Medicare Advantage programs.
8. The Secretary of Health and Human Services will finalize a national quality-improvement strategy.
9. States will be eligible for five-year grants to develop, implement, and evaluate alternative medical liability reform initiatives.

The wild card factor, however, will be whether attempts to repeal or legally challenge the act or parts of it will succeed.

Dayton Signs Early Medicaid Expansion

In a sharp break with his predecessor, Gov. Mark Dayton signed an executive order to allow Minnesota to take advantage of an early Medicaid expansion option included in the Patient Protection and Affordable Care Act. The move will add approximately 95,000 Minnesotans to Medical Assistance (the state's version of Medicaid), including 32,000 people from the General Assistance Medical Care program and 51,000 low-income workers from MinnesotaCare, the state's subsidized insurance program. Approximately 12,000 previously uninsured Minnesotans also will be added to Medicaid.

Dayton also signed an executive order reversing Gov. Tim Pawlenty's policy that barred state agencies from seeking grant money related to the federal health care reform law.

The MMA supported both moves.

Electronic Health Records

Meaningful Use Assistance

The Minnesota Department of Human Services has launched a website designed to offer physicians and other providers basic information about implementation of electronic health records (EHRs) and the meaningful use criteria tied to them. Care providers who demonstrate meaningful use of EHR technology will be eligible for financial rewards from Medicaid and Medicare.

The website offers information about eligibility for the program, the incentives being offered, and links to resources including a hospital EHR incentive calculation template. In addition, providers can sign up for email updates about EHR implementation and meaningful use. Go to www.dhs.state.mn.us and search for electronic health records.

Health Care Homes

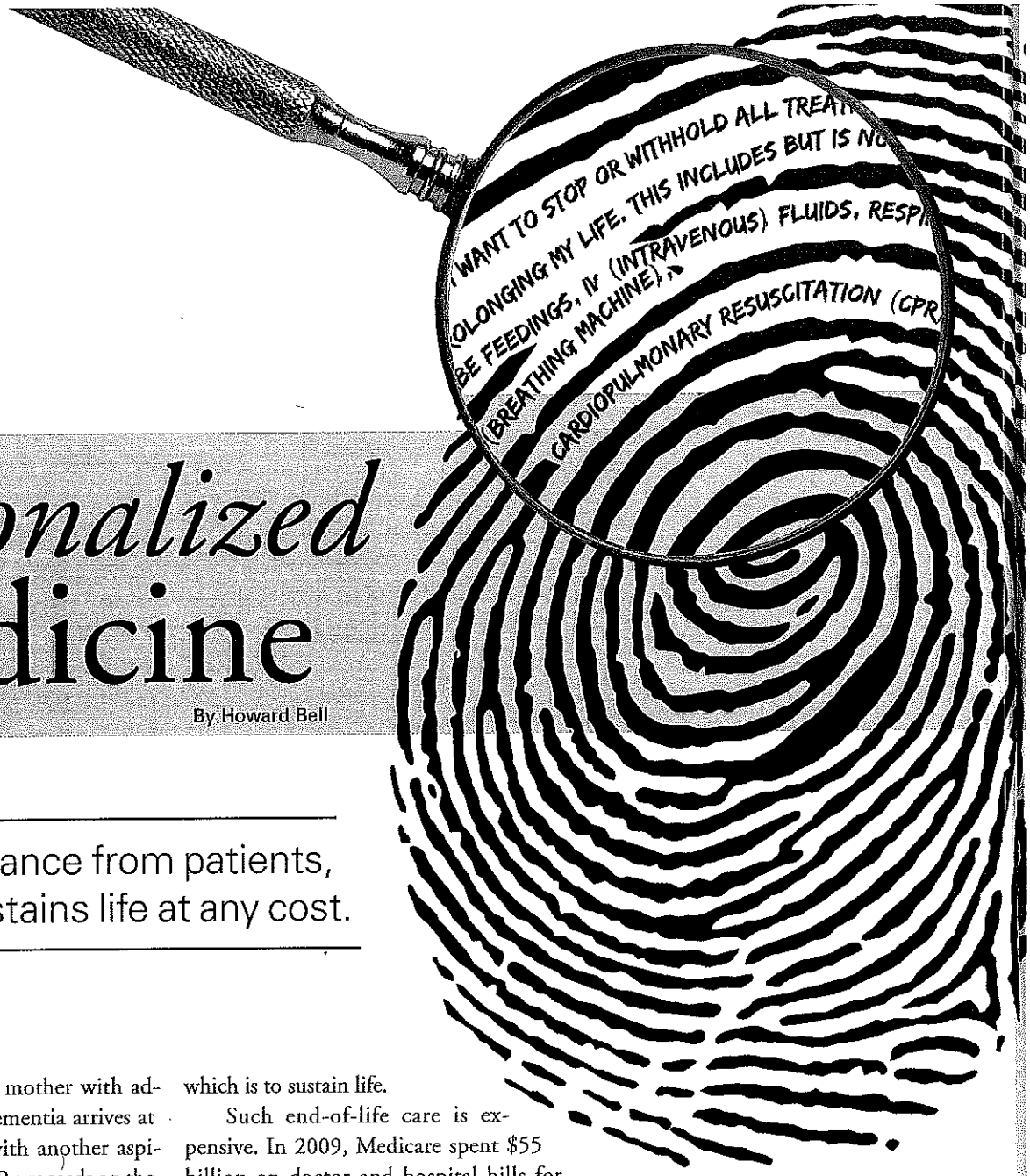
Health Care Home Quality Measures Released

The Minnesota Department of Health has released the 2011 quality measures that must be submitted by certified health care homes. They are: optimal vascular care, optimal asthma care, patient experience, and cost-effectiveness. The measures were drawn from the recommendations of the Health Care Homes Outcomes Measurement Advisory Work Group, which included representatives from the public and private health care sectors.

Certified health care homes will be required to submit quality measurement data in 2011. A submission deadline has not been set. The information will then be used by the Department of Health for benchmarking purposes, to recertify health care homes, and to evaluate the health care home program.

Department officials are expected to release more information about specific measurement tools and the data-submission process. Information about the health care homes program can be found at www.health.state.mn.us/healthreform/homes/index.html.

Minnesota Medicine is updating readers monthly as Minnesota implements components of the state's 2008 and the nation's 2010 health care reform legislation. Additional information is available online at www.mmaonline.net and at www.health.state.mn.us/healthreform/.



Personalized Medicine

By Howard Bell

Without guidance from patients, medicine sustains life at any cost.

"When your mother with advanced dementia arrives at the ER with another aspiration pneumonia, the ER proceeds on the supposition that she wants to be rescued or she wouldn't be there," says Craig Bowron, M.D., a hospitalist at Abbott Northwestern Hospital in Minneapolis. Then in the ICU, they assume she was brought there because she wants aggressive intervention, so they put her on a ventilator, even though that's maybe not what she or her family would want if they had a chance to talk about it. But she's sick, and she can't speak for herself, and something needs to be done—and it will.

"Hospitals are medical machines," Bowron says. "We're in the business of keeping people alive. And when the momentum is there to prolong a life, it's hard for the family to say no." Without guidance from patients, they do their jobs, which is to sustain life.

Such end-of-life care is expensive. In 2009, Medicare spent $55 billion on doctor and hospital bills for patients during their last eight weeks of life, according to the Dartmouth Atlas of Health Care, which examined national health care expenditures for the Medicare population. In addition, Dartmouth researchers found one-third of all Medicare payments are for the care of patients with chronic illnesses during their final two years. Much of that goes toward physician and hospital fees associated with repeated hospitalizations. "The average Medicare death costs $50,000 during the last six months of life for patients with common chronic diseases, and that doesn't include hospice costs," says Edward Ratner, M.D., a University of Minnesota geriatrician and expert on advance directives and end-of-life care. "It's typically expensive and intensive treatment that often postpones death for only a short time."

Spending that money might be acceptable if patients got the kind of care they wanted and if that care improved their lives, but too often neither is the case, according to Victor Sandler, M.D., a geriatrician with Fairview Health Services and medical director for its hospice and home care programs.

Providing less aggressive care for patients who have an advanced chronic illness or who are terminally ill does not shorten life, says Sandler. He cites several studies on hospice and palliative care. "In fact," he says, "providing hospice and palliative care instead of aggressive treatment,

on average, prolongs a patient's life longer and almost always improves the quality of life of patients and their families. And it happens to cost less." Research from the Dana-Farber Cancer Institute published in the October 2008 issue of the *Journal of the American Medical Association* suggests aggressive care during the months before death is associated with a poorer quality of life for patients and a more difficult bereavement for families.

"Sometimes the only thing worse than dying is being kept alive," Bowron wrote in his January 11, 2009, *Washington Post* essay "The Dying of the Light: The Drawn-Out Indignities of the American Way of Death." He described taking care of the dying elderly as the most difficult thing he does as a physician. "Among the patient care team," he wrote, "there is often a palpable sense of 'What in the world are we doing to this patient?'" Centers for Disease Control and Prevention and Dartmouth Atlas statistics show that although 80 percent of Americans say they want to die at home, pain free, surrounded by family and friends, only about 25 percent do. The rest of us die in hospitals, often alone and uncomfortably attached to tubes and machines. "Unnecessary and nonbeneficial care," Bowron said in an interview, "is moral and financial lunacy."

But futile end-of-life care has become the well-intentioned standard. And that is largely because patients and their families haven't made their wishes known, according to Ratner. "If there is no advance directive—either a piece of paper or a conversation—the default is to do everything medically possible whether or not a patient wants it."

Traditional advance directives that have been around for more than 25 years were supposed to take the guesswork out of treating patients at the end of life, but they've been underused, Ratner says. "Only about 20 to 30 percent of people have an advance directive," he explains. Of those who do have one, many times the documents cannot be found when they are needed; in some cases, families aren't even aware of them. He says even if advance directives are found, they're often not followed because families are reluctant to do so or because the form doesn't address important treatment decisions such as whether to administer IV fluids, artificial nutrition, or antibiotics.

Two new initiatives—Honoring Choices Minnesota and Provider Orders for Life-Sustaining Treatment (POLST)—are attempting to narrow the divide between the kind of end-of-life care Minnesotans say they want and the kind they actually receive.

Honoring Choices

Honoring Choices Minnesota is a Twin Cities-area initiative that when fully implemented will make advance directives available to all adults, make them accessible whenever and wherever they are needed, and ensure that health professionals follow them. Spearheaded by the Twin Cities Medical Society and the East and West Metro Medical Society Foundations, it began in January of 2008.

The impetus for Honoring Choices came from former East Metro Foundation president Robert Moravec, M.D., who had long observed the problems families and patients have with end-of-life decision making, according to Kent Wilson, M.D., the foundation's current president and Honoring Choices medical director. "He also noticed that advance directives not executed with professional help are often vague, confusing, and contradictory," Wilson says. With Moravec's urging, East Metro took on the leadership of the Honoring Choices project.

Dartmouth Atlas authors estimate that if all health systems became lower-cost higher-quality providers by implementing advance directives, Medicare spending at the end of life could be cut by 30 percent.

The initiative is based on a nationally recognized advance care planning model that was created in 1993 by Gundersen-Lutheran Medical Center in LaCrosse, Wisconsin, and is now used by nearly 60 health care systems nationwide. Gundersen's program is a communitywide effort that educates the public and health professionals about advance care planning. It makes advance directives available to all adults regardless of age, and it makes them portable and accessible to all area medical professionals.

The forms are just one part of an application embedded in Gundersen's electronic medical record. The application aids with all advance care planning practices, including orders for hospice and palliative care; it also guides practitioners on how to initiate end-of-life planning

Honoring Choices is partnering with Twin Cities Public Television and the Citizens League to promote conversations about end-of-life care.

Their first effort is a series of videotaped interviews with individuals from around the state about specific end-of-life issues. The clips may be viewed at www.TPT.org (type "Choices" in the search box). A public engagement campaign will begin this spring.

conversations and allows them to document in the EMR that a patient was given advance care planning education. It also helps them make referrals to facilitators trained to engage patients and families in end-of-life decision making.

"We're transplanting Gundersen-Lutheran's model to the Twin Cities because it worked in LaCrosse," says Wilson. Ninety percent of LaCrosse County residents who die while under the care of a physician in that county have a written advance directive, according to a retrospective study published last summer in the *Journal of the American Geriatric Society*. Ninety-nine percent of those advance directives were found in the patient's medical record at the institution where the patient died, a trend that has continued over 12 years.

By honoring patient and family wishes, the program reduced end-of-life care costs by an average of $3,500 for patients who received inpatient palliative care, according to Gundersen's internal studies, which also show that patients with advance directives use, on average, $2,000 less in physician and hospital services during the last six months of life. Hospital readmission rates are also lower: six percent for those patients with an advance directive compared with 18 percent for a control population. In addition, patients who had an advance directive reported high rates of satisfaction with the care they received before their death, as did their families. As a result, Gundersen-Lutheran ranks near the bottom nationally in terms of Medicare costs for treating patients with chronic diseases during the final two years of their lives; at the same time, Medicare ranks it as a high-quality provider as measured by outcomes.

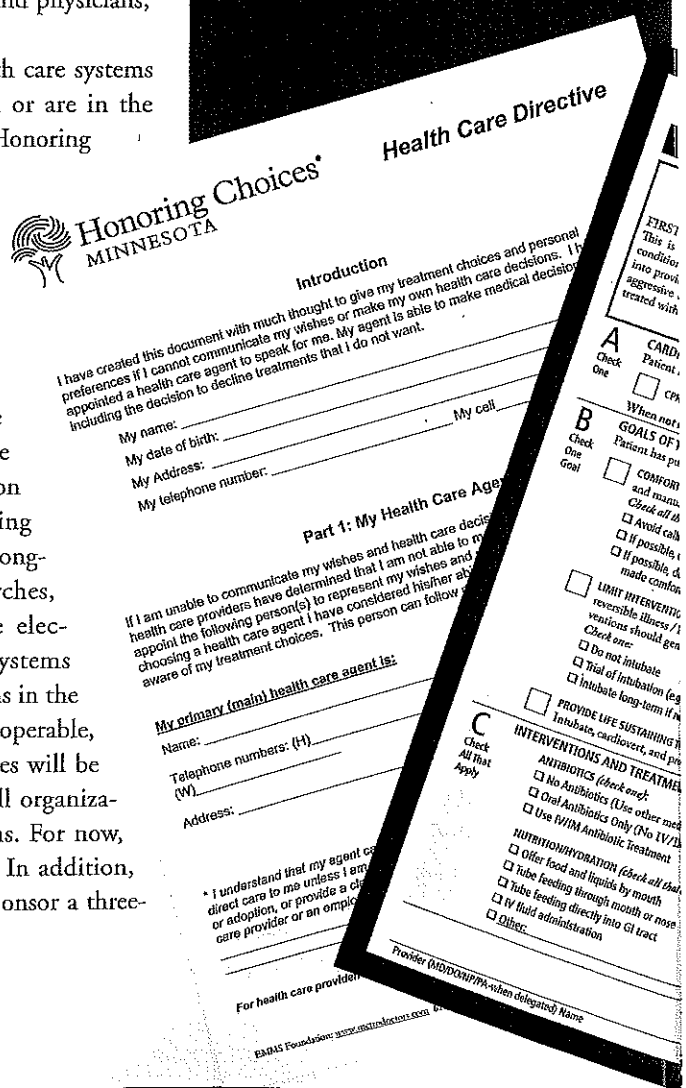
Wilson says what makes Honoring Choices unique is its emphasis on training people to engage patients and families in end-of-life conversations. "The focus is less on the form and more on the conversation facilitators encourage patients to have with their families and physicians," he says.

All Twin Cities health care systems are now participating in or are in the process of implementing Honoring Choices, according to Wilson. Nearly 500 nurses, nurse practitioners, social workers, chaplains, physicians, physician assistants, and members of inpatient palliative care teams have been trained to facilitate such conversations. Wilson and others will be training additional facilitators in long-term care settings, churches, and businesses. (As the electronic medical record systems used by health care systems in the Twin Cities become interoperable, patients' advance directives will be accessible to staff from all organizations within those systems. For now, paper copies are shared.) In addition, Honoring Choices will sponsor a three-year series of events including public television programs about end-of-life care planning.

Last year, participating systems completed six-month pilot programs, testing Honoring Choices in specific settings

Get the Forms

To learn more about Honoring Choices Minnesota or download a copy of the advance care planning form, go to www.metrodoctors.com and click on "Honoring Choices Minnesota." To download a copy of the POLST form, go to www.mnmed.org and click on "Key Issues" and "POLST Communication."



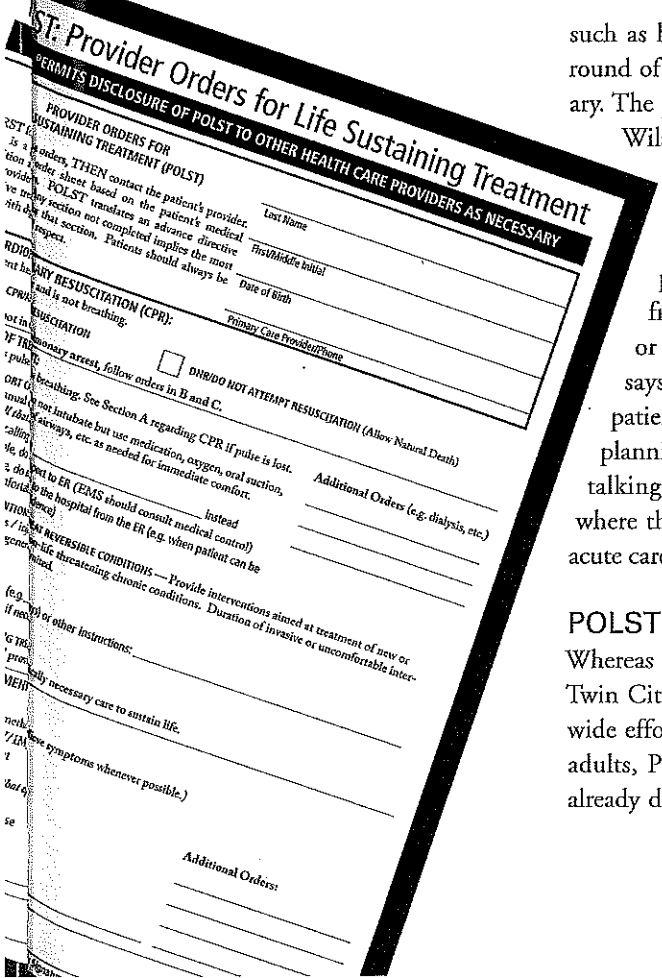
One way to broach the topic of end-of-life care is to make it part of the conversation with patients during routine clinic visits. "Just like we routinely ask patients about their allergies and medications, we need to ask if they have an advance directive and, if not, would they like to take one home or talk to one of our facilitators about it," says Kenneth Kephart, M.D., a Fairview Health Services geriatrician and Fairview's physician leader for Honoring Choices and POLST, two initiatives underway in Minnesota.

Honoring Choices pilot studies showed that people are most willing to discuss advance care planning outside of hospitals. That's why facilitators are being trained to initiate advance care planning in homes, churches, nursing homes, and community centers. "Our hope is to engage the public to do as much advance directive planning outside clinics and hospitals as possible," Kephart says.

A way to make the topic seem routine is to ask patients if they'd like to update their advance directive at relatively innocuous times, such as when they check in for an appointment or come in for a routine screening. Edward Ratner, M.D., a University of Minnesota expert on advance directives, says it's especially important that patients make their wishes known in writing (and that they're included in their medical record). "You didn't need POLST 30 years ago when your primary care doctor saw you in the clinic, the hospital, and maybe at home," he says. Today, however, it's important that the information be available at hospitals and nursing homes, and to physicians, emergency medical services providers, and others who might have contact with patients during critical times.

"Physicians traditionally played a pastoral role during the end of life, according to Beth Virnig, Ph.D., M.P.H., a professor of health policy and management at the University of Minnesota. "We need to teach physicians that such a role is entirely compatible and complementary to life-sustaining technologies when the two are used together wisely."

But training health care providers to do advance care planning is still not an educational priority, according to Victor Sandler, M.D., a geriatrician and medical director of Fairview's hospice and home care programs who routinely works with students and residents. "We need to get doctors up to speed; but we also need to train nurses, therapists, chaplains, and social workers how to have these discussions."—H.B.



such as hospice or home care. Another round of six-month pilots began in January. The point of the pilots, according to Wilson, is to figure out workflow—who does what, when, and how in order to accomplish advance care planning. "At this point, we don't have data on how frequently directives are honored or whether costs were reduced," he says. "But we did learn that many patients are interested in advance care planning, and they are more open to talking about it outside the hospital, where they may be in the middle of an acute care situation."

POLST

Whereas Honoring Choices is for now a Twin Cities initiative, POLST is a statewide effort. And instead of targeting all adults, POLST is designed for patients already diagnosed with a serious chronic illness, the frail elderly, and nursing home residents. POLST was initiated by the MMA's Ethics Committee and endorsed by the MMA, Minnesota Nursing Home Association, Minnesota Network of Hospice and Palliative Care, Minnesota Emergency Medical Services Regulatory Board, and CareChoice, which represents nursing homes, assisted living, and senior housing facilities across the state.

The POLST form is already used widely in several states, including Oregon and Wisconsin, and a similar form has been used for several years by Allina Health System and at Duluth's three major medical centers, according to Ratner. All of the Twin Cities health systems that are collaborating on Honoring Choices are in the process of implementing POLST, says Kenneth Kephart, M.D., a Fairview Health Services geriatrician and Fairview's physician leader for Honoring Choices and POLST. "Like every-

one else," he says, "we're in the process of figuring out the workflow for both of these initiatives."

POLST forms are medical orders, signed by a physician, that become part of a patient's medical record. The easily recognized one-page double-sided form can be prominently posted on a refrigerator, a wall, or in a nursing home chart as well. The idea, says Ratner, is to ensure that a seriously ill person's wishes about life-sustaining treatment are known and honored across all health care settings. Like Honoring Choices forms, POLST forms can be revoked or updated at any time such as when a patient transfers from one care setting to another, their health or marital status changes, or their medical preferences change.

The POLST form also indicates whether the patient wants to be taken to the hospital in an emergency. "Right now, we don't ask that," Sandler says. "We just ask about do-not-resuscitate wishes. So they automatically go to the hospital even if they prefer staying where they are and receiving only comfort care."

POLST forms are treatment-specific, and should be completed even if a patient has a traditional advance directive. "It more specifically answers the questions we need to be asking patients and families: How aggressively do you want us to treat you in an emergency, and who needs to be involved in life and death decisions?" Ratner says.

> "We are still a death-denying culture."
>
> —Craig Bowron, M.D.

In mid-January, Ratner and others began training nurses, social workers, and nurse practitioners in nursing homes around the state to use POLST forms and initiate end-of-life conversations with patients and families. Ratner, who is on the MMA's Ethics Committee, is also charged with evaluating the effectiveness of POLST and Honoring Choices. He hopes to see significant use of POLST especially by hospices, nursing homes, and home health care providers within the next three years.

An evaluation of POLST's effectiveness in 180 Oregon nursing homes over 10 years showed that residents' DNR wishes were honored 100 percent of the time. According to statistics from that state, use of antibiotics, IV fluids, and feeding tubes matched residents' wishes 86 percent, 84 percent, and 95 percent of the time, respectively. In addition, 35 percent of Oregonians die at home, compared with 25 percent nationwide. "But even when they die in the hospital," Ratner says, "far fewer get the aggressive interventions they didn't want."

Overcoming Obstacles

Health care professionals generally agree that anything that encourages people to make their end-of-life wishes known is good. But the fact is both patients and physicians are often reluctant to talk about the issue. "The physician is waiting for the patient to raise the subject and the patient is waiting for the physician to raise it," says Sandler, who makes a point of discussing end-of-life wishes with his patients and documenting those discussions in the medical record. "Too often, the conversation happens too late, after a great deal of undesired and unnecessary medical treatment has been delivered."

Many patients don't want to burden their families with such talk. "Overwhelmingly, patients tell me they don't want tube feedings or ventilators used to prolong their lives if they have no hope of eating or breathing on their own," Sandler says. "They just want to go home and not be attached to tubes. They'll often tell us these things, but they won't tell their family."

Even those who do want to talk about it can't predict what their death will be like or how they'll feel near the end, Bowron points out. "Most of us aren't imaginative enough to know how we'll feel on dialy-

Who Decides?

The recent case of 85-year-old Al Barnes of Scandia, Minnesota, highlights the difficult issue of who should be able to determine what is and is not appropriate when it comes to end-of-life care. According to news reports, Barnes was diagnosed with respiratory failure, renal failure, and dementia and had been in eight hospitals since the beginning of 2010. Although multiple doctors have stated Barnes has no hope recovering, his wife, who is his proxy, has continued to insist that everything possible be done for him because she believes his condition is treatable. And she claims she's simply honoring her husband's stated wishes. A doctor from Methodist Hospital went to Hennepin County Court in January seeking to replace Barnes' wife with a substitute decision maker, arguing that his wife was making reckless and futile decisions in an attempt to prolong her husband's life.

From the Minneapolis *Star Tribune*, January 19, 2010, www.startribune.com

sis or a ventilator or hooked to a feeding tube," he says. "It's impossible to write a document that predicts the absolute end moment."

In many cases, physicians are another obstacle to discussing end-of-life care. "They're trained to fix things," says Beth Virnig, Ph.D., M.P.H., a professor of health policy and management at the University of Minnesota. "There's always one more thing to try, and they don't like telling you they can't fix it because their job is to fix it." Virnig conducted a national survey of 4,000 physicians who care for patients with cancer. The results, published last February in the journal *Cancer*, show that most physicians delay end-of-life care discussions or avoid them altogether. "We weren't surprised by the survey results," she says. "What I'm hearing is that most docs want nothing to do with having these end-of-life conversations."

Bowron says after his *Washington Post* essay was published, he received dozens of emails from frustrated patients and families describing how they felt their physicians had steamrolled them. "We said no feeding tubes or antibiotics for Dad who's in the nursing home with advanced dementia; then the family walks into his room and there he is hooked to a feeding tube and IV antibiotics. Well, we thought he had a bladder infection, is the nursing home's response," Bowron says, referring to the comments he received.

Some specialists such as oncologists and cardiologists can be especially reluctant to talk about end-of-life care, according to Kephart, because they're fearful that it will rob patients of hope. "Studies show that's not the case," he says. "Nevertheless, it's important to not send mixed messages to seriously ill people."

Fear of litigation from family members is another reason why some physicians shy away from discussing and following advance directives, according to Ratner. However, he points out that Minnesota statutes protect physicians who follow instructions in a valid health care directive.

Cultural values also can stymie end-of-life decision making. "We have a predominant cultural viewpoint that people should live as long as they can by any means available," Ratner says. This view that it's somehow morally wrong to not keep doing everything possible creates contradictory thoughts and emotions that make it hard for patients and families to know for sure what they want. "We are still a death-denying culture," Bowron says. That's partly because medical advances create a façade that death is a choice, when really the only thing we have a say in is the circumstances of how we die, he points out.

In addition, some religious and advocacy groups believe people should be kept alive as long as possible by any means. "They're entitled to have that opinion for themselves," Ratner says. "But they don't have the right to impose that opinion on everyone else. It comes down to one question: Do people have the right to make their own choices, or should a religion or government decide for them?"

As for those who claim advance care planning is just a back-door way to cut costs, Sandler points out that "nobody benefits from spending money on care nobody wants. Everyone agrees we have to do something about the trillions of dollars of unfunded liabilities Medicare will have in years to come, and there's no better way to do that than by eliminating care people don't want in the first place. Studies show that better end-of-life care gives patients and families a higher quality of life and it happens to cost less. It's a win for everyone."

In the end, Bowron says it boils down to a simple formula: "Physicians need to learn to do what patients want, and patients need to tell us what they want." MM

Howard Bell is a medical writer who lives in Onalaska, Wisconsin.

PAYING FOR END-OF-LIFE PLANNING

In January, the Obama administration, reversed its course and announced it would revise a Medicare regulation by deleting references to paying for end-of-life planning done by physicians or their staff during annual wellness visits.

The move came just days after the policy took effect on January 1.

Administration officials cited procedural reasons for changing the rule. However, it was clear that political concerns were also a factor. Renewed debate over advance care planning threatened to become a distraction to administration officials who were gearing up to defend the health law against attack by the Republican majority in the House.

Although the Patient Protection and Affordable Care Act does not mention end-of-life planning, the topic was included in a Medicare regulation that set payment rates for thousands of physician services.

Medicare already reimburses physicians who counsel patients about advance care planning during palliative care consultations, says Edward Ratner M.D., a University of Minnesota expert on advance care planning.

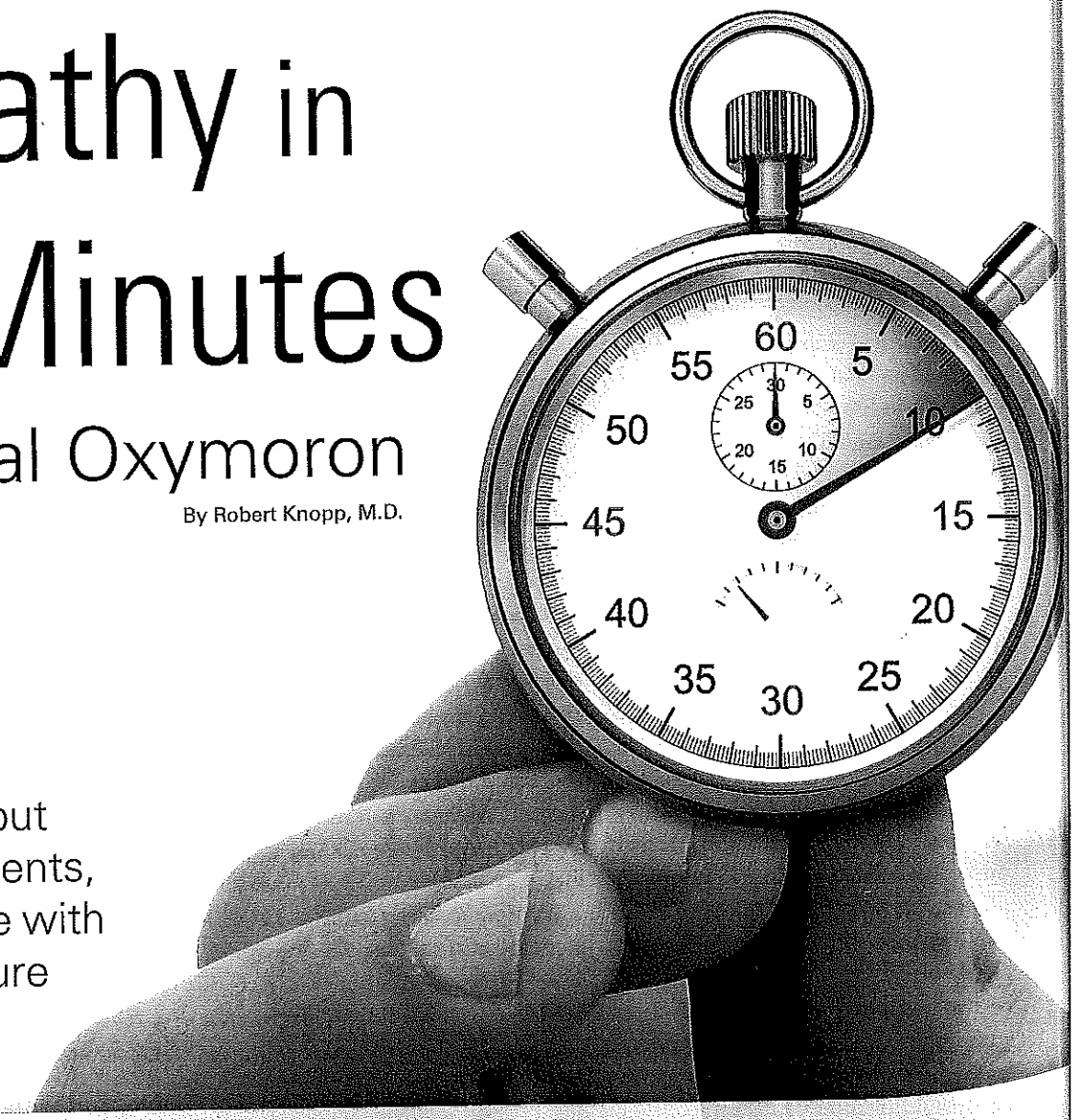
Meanwhile, some Minnesota health plans have created payments or incentives for end-of-life planning. According to Ratner, UCare covers advance care planning consultations. Nearly all insurers reimburse physicians at Allina hospitals in the metro area for inpatient palliative care consultations.

Blue Cross and Blue Shield of Minnesota offers incentive payments for advance care planning at four metro-area health systems. In addition, a state program for seniors on Medical Assistance or both Medicare and Medical Assistance requires advance care planning.—H.B.

Empathy in 10 Minutes

A Medical Oxymoron

By Robert Knopp, M.D.



All physicians, but especially residents, need more time with patients to assure good care.

Imagine you are a patient waiting to see your physician. She arrives, greets you, sits down, and asks about your family and recent vacation. Next, she inquires about your ongoing medical problems, listening intently, maintaining eye contact, and eliciting pertinent information with skillful questioning. She gives you the impression that she is empathetic. Then she suddenly looks at her watch, stands up, and says: "I'm sorry, but the 10 minutes allotted for your appointment are up. I'm afraid I don't have time to review your current medications, examine you, recommend appropriate treatment and preventive measures, or answer any questions you may have. You'll have to schedule two more visits."

At that point, you would likely express strong sentiments, and they would not be empathetic. Although this scenario is contrived, it exemplifies a real-world dilemma and raises a question for physicians: Can we provide quality care (defined by the Institute of Medicine[1] as safe, timely, efficient, effective, equitable, and patient-centered) in 10 minutes? For most physicians, and especially for residents, the answer is no.

In the recent *New England Journal of Medicine* article "The Value of DNKs,"[2] author Susan Mackie, M.D., an internal medicine resident at Beth Israel Deaconess Medical Center in Boston, describes her struggle to provide patient-centered care during 10-minute clinic appointments. She explains how she survives the grueling pace of her clinic only because of "DNKs," an acronym for the patients who "did not keep" their appointments. These no-shows allow her and her fellow residents to spend more time with their other patients.

Relying on DNKs to solve the time crunch, however, begs the question: What

happens on days when there are no DNKs? How can a resident or any physician, for that matter, provide patient-centered care in 10 or even 15 minutes, especially to patients with complex medical problems who are taking a long list of medications? Of course, there are patients for whom brief appointments may be appropriate—for example, those with minor trauma, sore throat, and earache. They often can be evaluated and appropriately treated in a short amount of time. But even for those patients, such brief appointments may not be sufficient. For example, a clinician may need to explain to a parent why she would not immediately recommend antibiotics for a child with an ear infection and why it's important to see if symptoms resolve within 48 hours before prescribing them.

If experienced physicians find they cannot provide what they consider to be quality care for most patients in 10 minutes, why would we expect residents with less than two years of training to be able to do it? Until 2009, the Residency Review Committee for Internal Medicine, the committee that certifies internal medicine training programs, limited the number of patients a second-year resident could evaluate to six during a half-day clinic. The committee has since removed those limits and now requires that residency programs promote patient safety, adjust schedules to mitigate excess service demands or fatigue, and not rely excessively on residents for service.[3] It is unclear whether the new requirements' lack of specificity led to residents in Mackie's program having only 10 or 15 minutes with a patient. (An informal survey of internal medicine residency directors in Minnesota indicates that residents in their programs do not have such short appointments.)

How can a resident or any physician, for that matter, provide patient-centered care in 10 or even 15 minutes?

In her article, Mackie describes what she's learned from her preceptor about how to make the most out of a short appointment: "My preceptor, a seasoned primary care physician, has been teaching me how to 'make a 10-minute visit feel like a 60-minute visit.' I've learned to incorporate some of her tricks—constructive listening to demonstrate empathy, adept questioning to elicit pertinent information, and good doses of eye contact thrown in at every step." But after having the luxury of an extra 20 minutes with a patient, thanks to the day's DNKs, Mackie questions whether these techniques can really make up for the lack of time. She explains how the longer visit allowed her to discuss whether the woman was taking her medication as prescribed and to talk about deep-breathing exercises as a way to control anxiety-associated pain—conversations that would not have happened otherwise. "My impression," she wrote, "is that there is no substitute for time. Either I am not skilled enough to make 10 minutes be 60 minutes, or there is something real about clock time. I suspect it's the latter ... Yet I firmly believe that adequate time—not simply perceived time, but real time—is an indispensable component of our encounters with patients if we are to be good doctors."

During the past decade, physician leaders have focused on providing more supervision for residents and reducing their duty hours so they can get more rest as strategies for ensuring patient safety. Those same leaders must continue that commitment to foster professionalism and patient-centered care by eliminating excessive service demands that require residents to work at a pace that can compromise safety and cultivate cynicism and burnout.

Although I have strong misgivings about any residency program that expects residents to see patients in 10 or 15 minutes, it appears that Mackie has learned an important lesson—she knows how she does not want to practice medicine. MM

Robert Knopp is a HealthPartners physician, professor of emergency medicine at the University of Minnesota Medical School, and member of the editorial board of *Annals of Emergency Medicine*.

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The Best Care

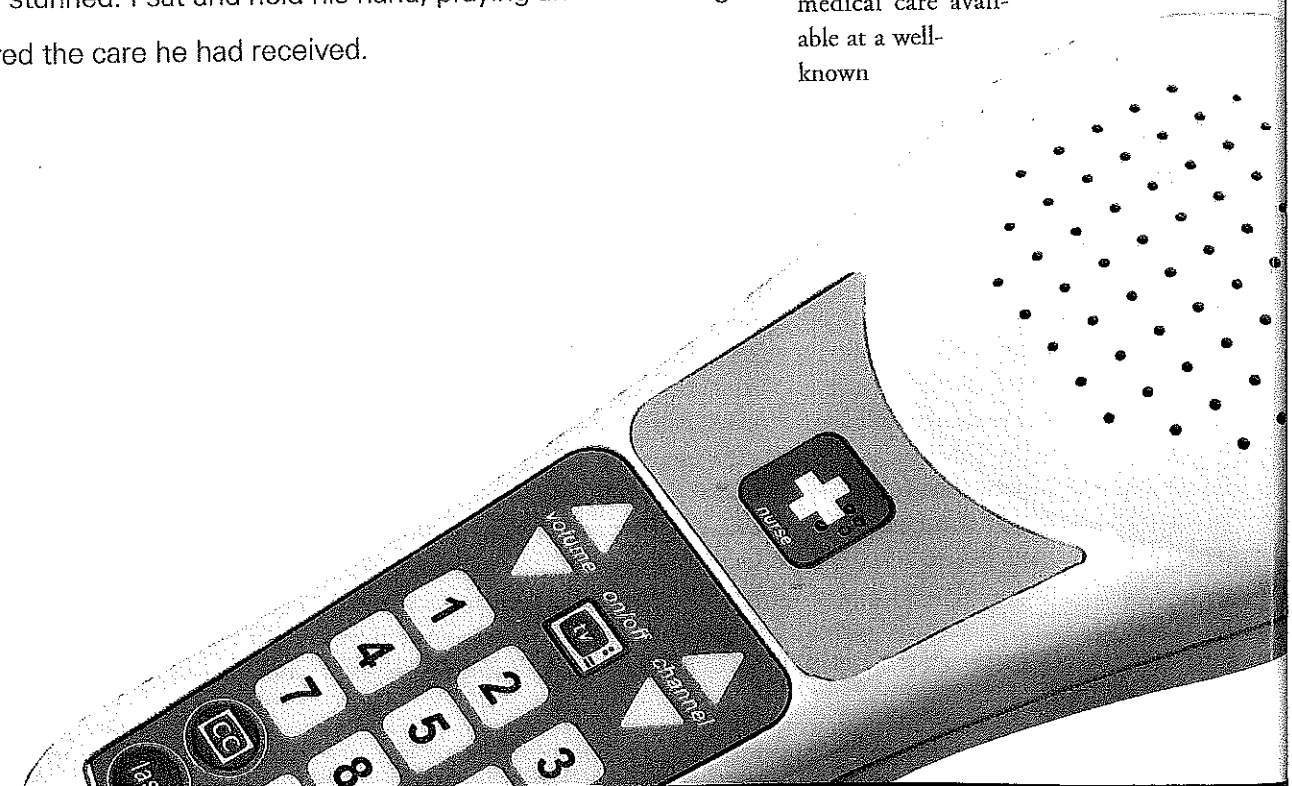
Although we routinely offer the most advanced medical care, we struggle to provide what patients need most.

By Gwen Wagstrom Halaas, M.D.

His breathing waxed and waned rhythmically. His thin hand was warm and dry as I held it tightly, feeling my own pulse and wishing I could share my vitality with him. I felt for his pulse with my other hand, my eyes watching his chest. The room was white, sterile—the only color coming from a collage of family pictures. It was quiet, peaceful. With children's lullabies playing softly in the background, it was a sacred place. Waiting and watching, I breathed shallowly, unwilling to disturb this moment. I knew this agonal rhythm and expected the outcome, but when his chest went still, I was stunned. I sat and held his hand, praying and wondering if he deserved the care he had received.

My uncle Arnold was a simple man, married for more than 50 years to my father's only sister. He was a bookkeeper, as was his father—a father he had never known because he died when Arnold was just a baby. A man of few words, we were never sure what Arnold was thinking. Once at a family gathering, we observed an extraordinary event: our quiet uncle engaged in an animated conversation, gesturing with his hands and laughing softly with our equally quiet uncle-in-law. Clearly, these two understated men had a language of their own.

Arnold received the best medical care available at a well-known



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academic medical center. The health professionals and medical staff did their very best to meet his needs. Arnold had been living independently with his wife in an apartment complex for seniors. His health had been deteriorating for some time, but to the casual observer, he was just aging quietly. One day, a member of the apartment complex staff became concerned about Arnold's appearance and called an ambulance that whisked him off to the academic medical center. It was the beginning of the end. He was quickly and efficiently evaluated and found to have a ruptured cardiac valve that had caused his aging heart to decompensate. Cardiovascular surgery was in order.

As his physician-niece who had power of attorney, I had a frank conversation with my 86-year-old uncle about what was wrong and the plan for surgery and his recovery. In a clear and surprisingly adamant voice, he made his wishes known: "I want surgery." We went over his advance directive. Would he want to be on a ventilator? What about resuscitation if his heart stopped? "I want everything done," he told me. He seemed to understand and appeared to be ready for what he had clearly been told would be a risky and difficult surgery. I was not as certain.

Surgery was scheduled for the next morning but was delayed because of higher-priority patients. Arnold waited, hungry but patient. Finally, the attendant rolled him into the OR at noon. I anticipated a long wait, but after six hours, I asked the young woman at the waiting room desk to call the OR. She relayed the message that there was difficulty weaning him from bypass but that the surgeons were sure that it wouldn't be long. At 9:30 p.m., I caught a brief glimpse of him, hidden under sheets and tubes, as they rolled him down the hall to the ICU. His surgeon stopped briefly. He calmly and compassionately described the challenges of the surgery but reassured me that he had operated on many others in their 80s and was expecting a full recovery.

The next day in the ICU, Arnold appeared gaunt and frail, attached to a ventilator and a mess of tubes. But it wasn't his physical appearance that haunted me. When I called his name, his eyes caught mine. There was a stark look of terror, an unspoken plea for help—pure panic. I took his hand and, leaning close to his ear, said, "Surgery went well. Your surgeon is very pleased with the outcome. I know it is hard to be on the ventilator, but you will recover." His eyes opened wide and looked directly into mine; he shook his head. From that time on in the ICU, if his eyes were open, the look of terror and the spasmodic silent pleas never ceased.

Over the next two weeks, Arnold improved. He was taken off the ventilator and the number of tubes gradually decreased. He slept during the day and was wide awake at night. He had difficulty swallowing. The doctors thought it was from being intubated. Worried about his healing, they ordered TPN and eventually inserted a G-tube. Months later, he still couldn't be tempted with food. Only with persistent coaxing would he eat one or two bites. Tube feedings were his only nourishment. Despite normal pulse oxygen readings, he depended on oxygen to appease his anxiety.

As he regained his strength, Arnold would repeatedly press his call button, irritating the nurses.

His family took turns visiting. He always knew who we were and never complained or asked any questions. "Hey, Arnie, how are you today?" "OK." "Any pain?" "No." He spoke few words, enough to convince us that he was oriented, and we just assumed he was back to his quiet ways. In fact, as soon as we would set foot in the room, he would acknowledge us then promptly fall asleep. He reserved his best moments for his wife. His face brightened with a crooked smile when she arrived, and he would wake up to kiss her goodbye when she left.

As he regained his strength, he would repeatedly press his call button, irritating the nurses. At first this seemed to be an intentional call for help, but soon we noticed a pattern. At the end of our visits we would ask, "Is there anything you need?" He would shake his head. But as we stepped from his room into the hall, the red light would go on. We would turn back and ask again. Nothing needed. This pattern was repeated every day. Frustrated, we tried to talk to him and apologized to the staff. Nothing worked.

Now when we visited, staff would greet us and immediately disappear. Knowing that having us there gave them an opportunity to address another patient's needs, I wasn't concerned. But when I searched for someone to give me information on his status, I couldn't find anyone. Nursing assistants would eventually respond to a call button, but getting someone to answer our questions was nearly impossible. When I asked for the physician in charge, the response from the nurse was, "The team is rounding and should be by in 20 minutes. Can you wait?" "Of course." After 90 minutes and two more requests, I would get a response. Usually, it would come from a medical student, looking somewhat anxious but doing his or her best to be helpful. Eventually, someone would render a quick opinion or ask me what I thought. But for the most part, no one could answer my questions. As a family member, I simply wanted someone's attention and reassurance or a simple explanation of a plan.

Maybe it was my introversion, but I had to tell myself not to be intimidated by this experience. I am a physician! How do others without my knowledge and capability cope? The custodial staff turned out to be the most comforting. Without a word of English, their smiles and nods expressed sincere compassion for Arnold and for us. The only staff I could reliably connect with were the social workers. Always respectful and caring, they reassured me and worked to get my questions answered. ↳

Time brought healing from his surgery but little else changed. As Arnold's days and nights remained confused, the staff would wheel him into the hall at night where he could observe the activity—and be away from the call button. Eventually, his pressing the call button was replaced by him yelling, "Help, help!" One nursing home refused to keep him, citing inadequate staff to attend to his constant demands. Finally, we found a caring home where the staff explained that, yes, he calls out for help, but when they go to him, he tells them what he needs and is then fine. The tireless staff cared compassionately for my uncle until his death, gently changing his clothes and moving him, speaking soothingly to him, joking and teasing him sweetly.

During Arnold's last months, he bounced between the nursing home and the hospital. The high-tech, academic hospital full of subspecialists and teams of learners provided the best medical care for whatever ailed him—a series of complications not unexpected—chest tubes, a pacemaker, treatment for *C. difficile*. But each time he entered the ivory tower, we encountered challenges. Receptionists didn't know which room he was in, telephone operators said he wasn't a patient, no one could find his advance directive (after multiple copies had been supplied). Medications would be abruptly discontinued or generously dosed. X-rays were not reviewed or were duplicated. Everyone was doing their best to care for him, but no one communicated with each other or with us.

Knowing full well the challenges of the hospital and of caring for such patients, I tried to be understanding and respectful. But I lost my composure once and played the "doctor" card. Soon after his first surgery, he suddenly leaned forward complaining to me of shortness of breath. "Help me, help me." A respiratory therapist was with another patient in the room. "Can you help? I don't know what is wrong." She rolled her eyes and said, "I'm busy right now." "Who is his nurse?" "She's busy taking care of other patients." "I want to talk to the doctors taking care of him." "They're busy rounding." "LOOK, I'M A DOCTOR, AND I NEED SOME HELP FOR MY UNCLE...." She rolled her eyes again as she kept on working with the patient in the other bed.

Living through this experience with Arnold has made my work seem even more compelling. I teach students to be compassionate, caring physicians, nurses, and pharmacists who work together to provide effective, collaborative care. I believe that my uncle received the best therapeutic care. But I am haunted by the look of fear in his eyes, his pleas for help, and his refusal to sleep at night. One of his ICU nurses told me he had experienced this with many older men who were afraid to die. Afraid to die? Or afraid to live like this?

We have laid Arnold to rest, but I cannot forget what I saw in his eyes in the hospital. We must do better. **MM**

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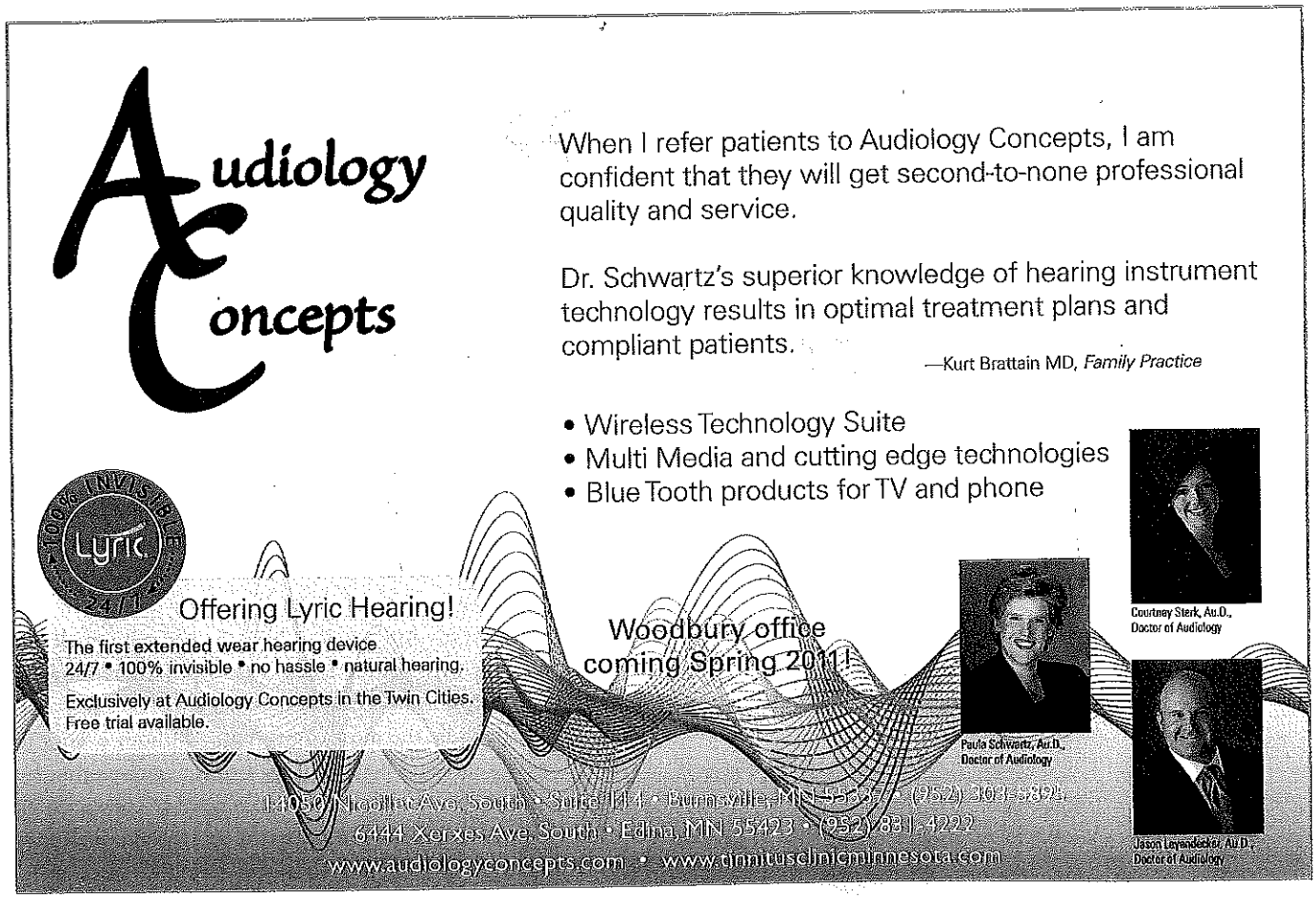


Payment Reform

The Lynchpin of Health Care Reform

By Julie J. Sonier, M.P.A., and Lynn A. Blewett, Ph.D.

The federal Patient Protection and Affordable Care Act that was signed into law last year includes provisions that will improve access to health care for everyone in the United States and extend insurance coverage to some 300 million people who currently do not have it. But insurance reforms and expansion of coverage are only part of the solution to the problems within our health care system. The way health care is paid for is another important element of reform. This article describes the steps we need to take to change the way we pay for health care and efforts that are underway both in the United States and Minnesota to test new payment models.

The Patient Protection and Affordable Care Act (ACA) was designed to improve access to affordable health care for all U.S. citizens and is expected to extend health insurance coverage to an estimated 30 million people who are currently uninsured. The many provisions in this historic legislation include an expansion of Medicaid for low-income populations, subsidized premiums offered through health insurance exchanges, subsidized reinsurance for employers to help provide coverage for early retirees (those age 55 to 64), and tax credits to make offering health insurance more affordable for small employers.[1] In addition, extensive insurance market reforms will change the rules about how premiums are set, what benefits are covered, what costs enrollees will share in, and what percentage of premium dollars can go toward health plan overhead and profit. But the success of the ACA will depend largely on the next stage of reform—fundamentally changing the way care is paid for. Payment reform is needed if we are to slow the increase in health care spending and "bend the cost curve."[2,3] It is clear that if health care delivery itself is not substantially transformed to result in more efficient care at lower costs, the access expansions included in the health reform act will not be sustainable.

Health Care Spending in Minnesota

Minnesota's health care costs historically have been lower than the national average; but the gap has been shrinking. Health care spending in Minnesota was estimated at $35.1 billion in 2008, representing 13.4% of the state's economy.[4] An average of $6,720 per person was spent on health care in Minnesota in 2008, which was slightly less than the national average of $7,166.

Figure 1 illustrates the trend in national health care spending growth compared with other economic indicators. Between 2000 and 2009, health care spending per capita in the United States grew by approximately 68%. During this period, the growth of health care spending was more than double the growth of per capita income, average wages, and general inflation (which grew by 31%, 28%, and 25%, respectively).

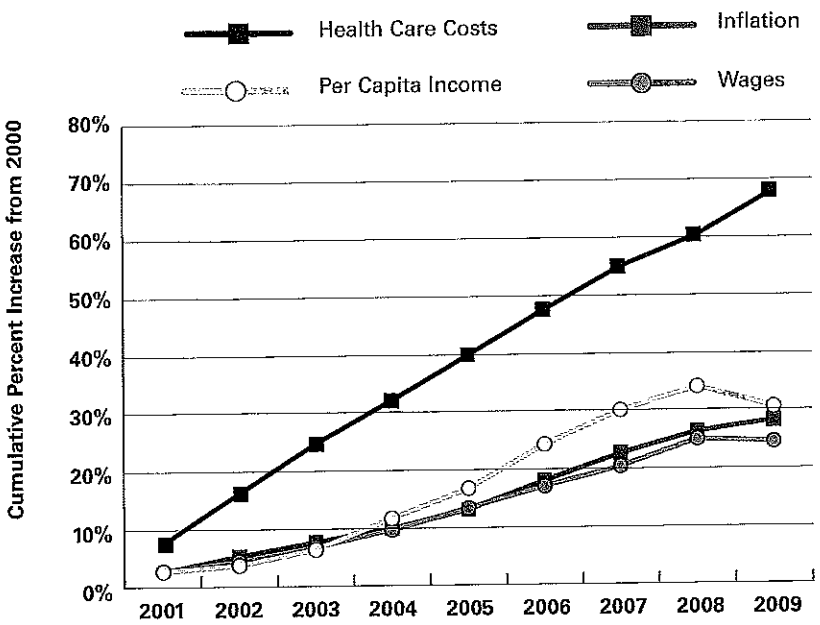
There are many reasons for the growth of health care spending both in Minnesota and across the country. They include changes in price (both general inflation and increases in health care prices above and beyond the rate of general inflation), changes in the volume of health care services provided, and changes in the type of services provided (for example, new procedures made possible by advances in technology). A number of underlying factors contribute to these changes including investments in new health care facilities and demographic trends.

Treatment of chronic illness accounts for an estimated 84% of health expenditures in the United States, and 10 chronic conditions account for nearly half of the rise in inflation-adjusted Medicare spending over the last 20 years.[5] Many of these conditions are preventable. Those conditions that are not well-managed can result in repeat hospitalizations, unnecessary emergency room use, and poor quality of life. Unfortunately, our system is often more willing to pay for acute care delivery than prevention or management of chronic conditions.

We believe payment reform can reduce the growth of health care spending over time. The current health care system pays primarily by volume of services provided. It offers little incentive to provide efficient or coordinated care and no financial reward for either quality or value. Consequently, it misses many opportunities to provide better care at a lower cost. We need to do a better job of rewarding providers for coordinating or managing care, rather than for performing more tests and procedures.

Figure 1

Health Care Spending Growth Compared with Other Economic Indicators



Source: Centers for Medicare and Medicaid Services, Office of the Actuary; U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Labor, Bureau of Labor Statistics

Strategies for Payment Reform

Payment reform can take many different forms, ranging from incentive payments on top of fee-for-service payments to a fundamental restructuring of how health care is paid for. What current payment reform initiatives all have in common is that they attempt to change the way health care is delivered by changing the way providers get paid. Several types of payment reform initiatives are being tested or considered.

Bonus payments for meeting specific targets. Also called pay for performance, this payment mechanism offers providers bonuses for meeting quality targets (or for making significant progress toward those targets). These programs build incentives for quality improvement into the current volume-based fee-for-service payment system; however, because the bonus payments are essentially an add-on to the current system, some experts believe this type of payment reform should be considered primarily a transition mechanism until more fundamental payment reforms can be put in place.

Payments for care coordination. The current payment system fails to reward health care providers who do a good job of managing their patients' chronic health conditions (thereby avoiding costly and dangerous progression or complications of their diseases). Instead, it encourages discrete billable events such as office visits and diagnostic tests. Thus, a provider who manages care well could actually lose money because good care management can decrease the need for more costly care later on. Over the past few years, initiatives to explicitly pay for care coordination services provided through medical homes or health care homes have gained increasing support from both public and private payers.

Replacing our volume-based payment system. The most fundamental type of payment reform involves replacing the current volume-based payment system with one that encourages greater efficiency and innovation. Providing a single bundled payment for all of the services needed to treat a particular condition (or episode of care) rewards rather than penalizes providers who are efficient and who do a good job of preventing costly complications.

Beyond condition- or episode-based payment models are those that attempt to move toward "global" or "total cost of care" payments. These often include a "shared savings" component; some require providers to assume a degree of financial risk if cost targets are not met. Accountable care organizations (ACOs) are one example of this type of reformed payment system that is increasingly being considered.

Although these types of payment reform create opportunities for providers to transform the way they deliver care so that it results in better outcomes and can be done at lower costs, they also raise several concerns. One is that the quality of care could suffer under a system that rewards providers for containing costs. With advances in quality measurement in recent years, proponents argue that it should be possible to monitor for this problem; in addition, incentives for maintaining and improving quality can be built into new payment systems.

Another is that providers who serve sicker populations or populations that have difficulty complying with physicians' recommendations (because of poor literacy, language issues, or poverty, for example), will be penalized under a system that emphasizes accountability for the total cost of care; if this issue is not addressed, access to care could suffer for these individuals. For this reason, a reformed payment system will need to include risk adjustment for differences in patient populations so providers are not discouraged from treating high-risk or high-cost patients.

Finally, there is growing concern that payment models that emphasize provider cooperation and coordination could lead to greater market concentration among health care providers, as groups merge in order to operate more efficiently. The result might be higher prices for care, as larger provider organizations

Table

Major Payment Reform Provisions in the 2010 Patient Protection and Affordable Care Act

2010	Medicaid global payments demonstration projects involving large safety net hospitals in five states
2011	Medicare bonus payments to physicians who participate in quality reporting (2011 through 2014)
2012	Medicare accountable care organization (ACO) demonstration projects with shared savings for ACOs meeting quality standards
	Medicaid pediatric ACO demonstration project (2012 through 2016)
	Medicaid bundled payment demonstration projects (2012 through 2016)
	Reduced Medicare payments to hospitals with high readmission rates
2013	Hospital value-based purchasing program (payments based in part on quality)
	Medicare bundled payment demonstration projects
	Higher federal Medicaid matching payments for states that pay for care coordination services (90% match for 2013 and 2014 only)
2015	"Value index" based on quality and cost added to Medicare physician payment methodology
	Reduced Medicare payment rates for physicians not participating in Physician Quality Reporting Incentive program
	Reduced Medicare payment rates for hospitals with high rates of hospital-acquired conditions
2016	Medicare pay-for-performance pilot program

Source: The Commonwealth Fund, "Timeline for Health Care Reform Implementation: System and Delivery Reform Provisions," April 2010.

gain negotiating leverage with health plans. Policy makers and regulators recognize and are beginning to address this issue, as well as concerns about relationships between providers that could improve care coordination and delivery but violate rules that regulate financial relationships.

Efforts Underway

Although much of the attention given to the ACA has been focused on its provisions related to insurance coverage, the law also includes a number of payment reform initiatives designed to improve health care quality and contain costs. The table on this page illustrates the timeline for several such provisions in the law. In addition, the ACA established a Center for Medicare and Medicaid Innovation to test innovative payment and service delivery models. Minnesota is one of eight states that has been selected to participate in a Medicare demonstration that will pay providers for their efforts to coordinate care for patients with chronic illnesses.[6]

■ Payment Reform in Minnesota

Minnesota has been a national leader in health care payment reform, but a number of initiatives in which the state has been collaborating with providers, health plans, and other stakeholders have been taking place under the national policy radar. In early 2008, the Governor's Health Care Transformation Task Force and the Legislative Commission on Health Care Access each put forth recommendations for comprehensive health care reform after months of intensive discussions involving policy makers, health care providers, health plan representatives, employers, and other stakeholders.[7,8]

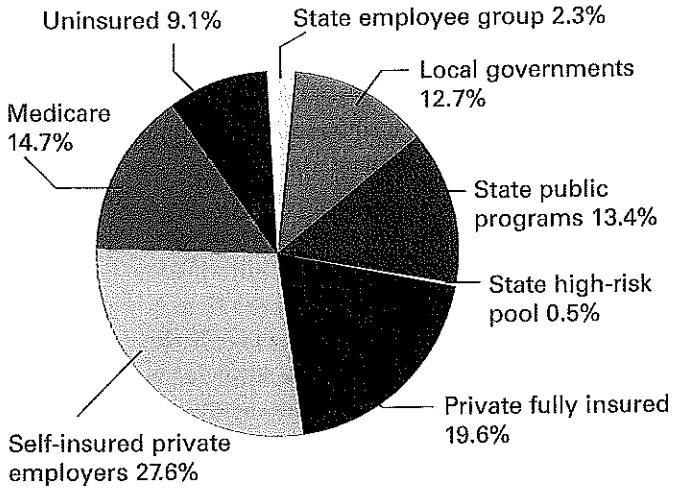
Their proposals formed the basis for the health care reform law that Minnesota enacted later that year.[9] The law included provisions that expand both public and private health insurance coverage and make premiums more affordable. It sought to prevent chronic disease with initiatives to reduce the prevalence of overweight/obesity and tobacco use in Minnesota. The law also included several provisions that can serve as a foundation for future payment reforms. These include the establishment of a statewide quality reporting system and a quality incentive payment system to reward providers who meet quality targets or make substantial progress toward meeting those targets. Another established a process for certifying providers as health care homes, making them eligible to receive care coordination payments. The law also required both public and private payers to pay for care coordination services. In addition, it encouraged health care providers and private health plans to participate in bundled payment ("baskets of care") initiatives.

One of the most controversial issues that was debated during the 2008 hearings was whether to include fundamental payment reforms that would establish provider accountability for the total cost of care delivered to a patient population. This provision was not included, but the law did require creation of a provider peer grouping system that will compare health care providers on both the cost and quality of care they deliver, with the idea being that the comparisons could serve as a foundation for more fundamental payment reforms in the future. The first public results of provider peer grouping will be available later this year and will be used by major health care purchasers (eg, state and local governments) and health plans to encourage consumers to use higher-quality, lower-cost providers.

Payment reform experimentation is also taking place in Minnesota's private sector. Health plans and provider groups are testing total cost of care arrangements as well as more incremental forms of payment reform. For example, in July 2009 Fairview Health Services and Medica developed a two-year contract for coordinated care with a certain amount of payment based on outcomes and quality improvements that reduce costs. Teams across

Figure 2

Minnesota Health Care Payer Distribution, 2009



Source: Minnesota Department of Health, Minnesota Department of Human Services, Minnesota Department of Employment and Economic Development, Minnesota Management and Budget, U.S. Census Bureau, and Kaiser State Health Facts

Fairview have also partnered with University of Minnesota Physicians to develop 12 defined care package standards to improve care and better manage costs for certain conditions and procedures including low-back pain, diabetes, hypertension, migraine headaches, kidney transplant, and prenatal care.[10] Although many of these efforts are still in the early stages, several have resulted in better performance on quality measures, reduced costs, and improved patient satisfaction.[11]

In addition to these collaborations between health plans and providers, large self-insured employer groups in Minnesota have a long history of engaging in payment reforms. In the 1990s, the Buyers' Health Care Action Group contracted directly with care systems and held those systems accountable for the total cost of care—an early version of the ACO model. Although large purchasers have limited ability to transform health care delivery on their own, their involvement is needed for real transformation of the system to happen.

Next Steps

Although it is widely acknowledged that current payment systems are a barrier to improving the efficiency and quality of health care delivery, achieving the potential of payment reform will not come easily. We believe the following are needed in order to make it happen:

Consistent approaches across payers. No single payer in Minnesota is large enough to transform the way health care is paid for on its own. As shown in Figure 2, Medicare is the largest single source of health care coverage in the state, but it covers only about 15% percent of the population. State and local governments combined provide coverage for about 29% of the population. About 20% of Minnesotans have coverage through the fully insured private employer market and the individual market; Blue Cross and Blue Shield of Minnesota is the largest health plan within that segment, having about one-third market share (or covering about 7% of the population).[12] Any one of these payers acting alone will have limited impact on the system. For this reason, payers will have to work together whenever possible in order to send a strong, unified message to providers about the need for improved efficiency and quality. Only by working together will payers be able to achieve the critical mass needed to drive change.

Several of Minnesota's 2008 payment reform initiatives were designed to be multipayer initiatives. For example, in Minnesota's health care home program, both public and private payers are required to pay for care coordination in a consistent manner. Similarly, both the public and private sectors are expected to use information from Minnesota's provider peer grouping initiative to create incentives for consumers to choose lower-cost, higher-quality providers.

Consumer engagement. In addition to changing financial incentives for health care providers, payers also will have to provide consumers with better incentives for making informed choices about their health care. One way to do this is by using tiered health plan networks, in which consumers' share of the cost (deductibles, copayments, or both) varies depending on the provider they choose. Although tiered provider networks have become more common in recent years, many are based only on cost, and the methods by which health plans assign providers to tiers are usually not transparent. A provider who performs well under one health plan's ranking system may not perform well under another plan's system. Minnesota's provider peer-grouping initiative came about as a result of providers' desire to include both cost and quality in these rating systems, and to use a transparent methodology and a common base of information for comparing providers.

Experimentation and evaluation. We currently lack the evidence needed to know which payment reform approaches will be most effective. It will be important for payers (including states, Medicare, private health plans, and self-insured employers) to collaborate with each other on reform initiatives. It will be equally important to carefully evaluate the effectiveness of payment reform initiatives and publish the results in order to learn what does and does not work. The Medicare ACO demonstration projects called for in the ACA represent an opportunity to develop and test this model across multiple payers. In addition, the Center for Medicare and Medicaid Innovation can help states develop other projects, assemble the evidence about which models works, and share what they learn.

Through its provider peer-grouping system and quality measurement and reporting efforts, Minnesota is ahead of the curve on developing better measures of outcome, quality, and efficiency that are needed for effective payment reform. In November 2010, the Minnesota Department of Health released its first statewide quality report with data for clinics and hospitals.[13] This is an important step in moving toward quality comparisons, but more and better measures are still needed.

Conclusion

Payment reform initiatives have the potential to control the growth of health care spending, and Minnesota appears to be well-positioned to lead the nation in this area. The state is already a leader in multipayer care coordination initiatives through its health care home activities. In addition, Minnesota's innovative provider peer-grouping system is a potential building block for fundamental payment reforms that improve quality and contain costs.

One key choice that lies ahead for Minnesota is how vigorously to pursue multipayer reform initiatives. Without the participation of both public and private players, including self-insured plans, we will not have the critical mass of payers needed to bend the cost curve. On the other hand, we need to acknowledge and continue the experimentation that is going on in both the public and private sectors.

In addition, many of the payment reform initiatives included in the ACA offer opportunities to leverage efforts that are already under way in Minnesota by adding Medicare as a participant or by "piggybacking" on Medicare's other payment changes. Both large-scale efforts involving multiple payers and providers and small-scale efforts between individual payers and providers will be needed as we seek to improve quality and contain costs in Minnesota and the United States. MM

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Accountable Care Organizations

A Primer

By Janet Silversmith

Accountable care organizations (ACOs) are being hailed as a promising element of health care reform, as some believe they will be critical to improving the quality of care and holding down costs. Several state and federal ACO demonstration projects are scheduled to begin in the near future. Yet, questions abound as to what exactly an ACO is and how they work. This article describes the concept, outlines challenges to implementing ACOs, and discusses concerns about this new care delivery and payment model.

Accountable care organizations (ACOs) have garnered significant attention as a promising element of health care reform. As part of the 2010 Patient Protection and Affordable Care Act, the Centers for Medicare and Medicaid Services will be required to establish a variety of demonstration projects to test and evaluate new care delivery and payment models for Medicare including medical homes, bundled payments, and ACOs. For many, however, the ACO concept is unclear. Some have described ACOs as a specific organizational structure, while others have equated them with payment mechanisms such as shared-savings or quasi-capitated models that place providers at financial risk for the care they provide. This has caused confusion among both providers and payers.

In general, the term ACO refers to a group of health care providers that accepts accountability for the cost and quality of care delivered to a defined population of patients. The concept was initially described by Dartmouth physician and researcher Elliott Fisher, M.D., and colleagues in a 2007 *Health Affairs* article in which they outlined an approach to improving quality and reducing waste by "fostering shared accountability" for the cost and quality of care among all providers involved in a patient's care. In particular, they suggested the development of empirically defined "virtual" organizations composed of local hospitals and the physicians who work "within and around them."[1] In a subsequent article, Devers and Berenson described three characteristics essential to an ACO:

1. Having the ability to provide and manage care across the continuum and across settings;
2. Having the ability to prospectively plan budgets and assess the need for resources; and
3. Being large enough to support valid performance measurement.[2]

Why the Current Interest?

The force driving interest in ACOs is concern about the cost and quality of health care in this country and the fact that current payment models provide few incentives for improving quality or reducing costs. The rising cost of health care has everyone searching for innovative ways to bend the cost curve downward. Similarly, evidence of underperformance in the quality and efficiency of care delivered, much of which can be attributed to fragmented or poorly coordinated care for patients with complex or chronic illnesses,[3-5] has led to calls for greater collaboration among care providers. In addition, both physicians and purchasers of health care have questioned the feasibility of realizing cost savings and quality improvement given the incentives associated with current models of paying for care. The current fee-for-service payment mechanism does not, for example, reward providers for keeping patients healthy or out of the hospital; in fact, it encourages utilization of care—both that which is needed and that which is of limited or no value. Proponents of ACOs suggest that cost and quality can be addressed by holding providers accountable for the care they provide in exchange for financial incentives.

The Challenges

ACO implementation has uncovered a number of challenges, the foremost of which is developing the specific mechanisms to create accountability and new payment incentives. A number of factors come into play, including the clinical capacity of the ACO and

the extent to which it is financially and clinically integrated. A large, formally integrated ACO that can provide a broad range of services may prefer to be paid using a risk-based payment model. An ACO with more limited capacity may prefer a blended model that combines fee-for-service payments with payments for coordinating the care of patients with complex medical conditions. Informal or virtual ACOs will likely encounter legal barriers as they try to accept and distribute payments among unaffiliated providers. This will make the development of ACOs extremely complex in some regions and among some providers.

For ACOs to work, payers must be willing to include them in their provider networks (thus providing ACOs with enrollees). The Medicare Payment Advisory Commission (MedPAC) has noted that in order for an ACO to align its clinical and operational decision-making, which is particularly important for partial or global capitation, it must serve a significant number of patients.[6] Fisher and colleagues have suggested that a minimum of 5,000 patients per ACO are needed for measurement purposes.[7]

Patient participation in ACOs is another concern. One question that needs to be answered is whether patients will be given the option of enrolling in a particular ACO or whether they will be assigned or attributed to one. In its recommendations for Medicare ACO development, MedPAC calls for attributing patients to ACOs based on the primary care physician who provides the majority of their routine care.[7] It is difficult, however, to imagine how a network of physicians and other providers could accept accountability and manage the care of patients without actually knowing who those patients are ahead of time.

Getting patients to accept the ACO model could be a challenge, as the concept may remind them of the HMOs of the 1990s, which limited their choice of providers and were perceived as rationing care. One of the most common criticisms is that ACOs are simply a return to the capitation model of the 1990s that some consider "a colossal and expensive failure."[8] Minnesota's effort to create Integrated Service Networks in the mid-1990s, which for the most part was considered a failure, bears some resemblance to current ACO efforts. From a practical perspective, it will be essential to develop sound risk-adjustment mechanisms in order to protect ACOs from financial failure and prevent them from enrolling only healthy patients. Yet it is not known whether this is possible. Some point out that despite real advances, today's risk-adjustment methodologies were developed for research or quality reporting and not for rate-setting.[9]

Another concern is that current quality metrics may not be sufficient for monitoring ACO performance and ensuring that financial pressures do not result in the withholding of appropriate care. There also are questions about how ACOs could be formed in rural or sparsely populated areas, and how to manage care a patient might obtain outside the ACO. Furthermore, some have questioned whether interest in ACO development will simply result in the creation of more large, integrated provider groups that will use their significant market power to leverage payments—a consequence that could blunt any potential cost savings.[10] Finally, some of the expected functions of ACOs blur the lines between care delivery and insurance functions. The distinction between insurance risk and performance risk is important, not only to ensure adequate payment rates but also in determining solvency and how insurance regulations might apply to ACOs.

Testing the Waters

The Centers for Medicare and Medicaid Services has been charged with developing an ACO demonstration project by January 2012, with the goal of promoting accountability, coordinating services under Medicare Parts A (hospital services) and B (physician services), and encouraging investment in infrastructure and redesigned care processes. Provider participation in the ACO project will be voluntary. To be eligible, a group of providers must:

- assume accountability for the quality, cost, and overall care of fee-for-service beneficiaries assigned to it;
- agree to participate for three years (and not participate in any other Medicare or Medicaid shared-savings demonstrations);
- have a legal structure that allows for the collection and distribution of payments to providers and suppliers;
- have a sufficient number of primary care providers to care for the no-less-than 5,000 Medicare beneficiaries assigned to it;
- have a clinical and administrative leadership and management structure; and
- have defined processes to provide evidence-based medicine, report on quality and cost measures, and coordinate care.

The 2010 health care reform law gives the CMS discretion in terms of how payment to ACOs could be structured. Payment options might include partial capitation, which may be limited to highly integrated provider systems and those capable of bearing risk. In such a case, fee-for-service payments would continue but the ACO would share a portion of any savings achieved in excess of a defined threshold.

The law also authorized the creation of ACOs for the Medicaid population. In particular, it calls for the creation of a pediatric ACO demonstration project whereby Medicaid providers could be designated as ACOs and receive incentive payments similar to those being considered for the Medicare demonstration. In addition, the law establishes a Medicaid global payment system demonstration project under which states will be able to adjust their current payment structure for safety-net hospitals from a fee-for-service to a capitated payment system.

In Minnesota, the 2010 Legislature adopted language calling on the Depart-

ment of Human Services to develop a demonstration project to test alternative and innovative health care delivery systems including ACOs.[11] The demonstration project is intended for Medical Assistance (Medicaid) and MinnesotaCare enrollees and is expected to begin July 1, 2011. Providers will deliver services to a specified patient population for an agreed-upon total cost of care or risk-gain sharing payment arrangement. The quality and cost metrics and method of payment that will be used have yet to be determined.

Some provider organizations and private insurers are not waiting for the federal government to define ACOs for them and have moved forward with new arrangements. For example, Fairview Health Services and Medica announced a new partnership in July of 2009 whereby Fairview could earn performance-based payments tied to improving clinical quality and managing the total cost of care.[12] Similarly, the Northwest Metro Alliance, a collaboration between Mercy Hospital, Allina Medical Clinic, HealthPartners Medical Group, and HealthPartners Health Plan, has established a shared-savings model focused on improving population health, improving the patient experience, and reducing spending.[13] And in November 2010, Blue Cross and Blue Shield of Minnesota announced new contracts with Allina, Essentia Health, Fairview, and HealthEast that would increase the proportion of incentive-based payments.[14]

Minnesota's health care home model has many features similar to those considered essential to the success of ACOs, namely a focus on care coordination, disease management, and enhanced communication among a team of providers. The fact that it has taken more than two years for the state to roll out the health care home program suggests that the adoption of further delivery and payment reforms will take time and patience.

What's Next?

Although there is interest in the concept of ACOs in Minnesota, it is unclear whether it will extend beyond large, integrated systems. The formidable and real questions regarding implementation, however, suggest that a tempered and thoughtful approach is needed to avoid unintended consequences and mistakes of the past. MM

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Differences in the Cost of Health Care Provided by Group Practices in Minnesota

By John E. Kralewski, Ph.D., Bryan E. Dowd, Ph.D., and Yi (Wendy) Xu

This article reports the findings of a study designed to identify differences in the cost and quality of care provided by medical group practices in Minnesota. Fifty-three practices that provide services to enrollees of employer-based self-insured health plans were included in the study. Costs adjusted for case mix and payment levels were found to vary from $2,400 to nearly $4,700 per member per year. Quality of care had less variance and was not found to be related to cost. The practices that provided high-quality, low-cost care included both relatively small physician-owned practices and large, multi-clinic systems that also owned hospitals.

One proposal for reducing health care costs that is rapidly gaining support is shifting patients to lower-cost providers. It is argued that some physicians and hospitals charge less for services and that substantial savings can be achieved by seeking care from those providers. A counter argument that is gaining currency is that these savings are unduly optimistic because the most important cost issue is the number of units of service used rather than how much providers are paid for those units. This is the basic philosophy behind the medical home and accountable care organization (ACO) movements.[1,2]

Supporters of medical homes and ACOs argue that they will reduce costs while improving the quality of care through effective coordination and management of services. In order to determine whether or not these models actually do reduce costs, three things need to be understood: the extent to which variation exists among medical group practices in terms of resources used to care for patients; whether quality of care is linked to cost; and the characteristics of the practices that provide low-cost, high-quality care. In this article, we present data related to variation in resource use among 53 medical groups that provide care to individuals enrolled in employer-based self-insured health plans in Minnesota. We also examine the relationships between differences in cost and quality-of-care measures and practice characteristics such as size and ownership.

Methods

Our study is based on data obtained from a firm that manages claims for self-insured health plans in Minnesota. They identified 53 medical groups, each of which provided care for at least 300 individuals enrolled in those plans. Enrollees were assigned to the practice where they received at least 50% of their primary care during 2007 and 2008. We limited the study to those practices that provided care for at least 300 enrollees to assure a stable database for each practice.

The cost of care provided by each practice was calculated by identifying the services, procedures, and prescription drugs used by each enrollee in that practice and assigning the average allowed amount paid for each unit in all of the practices in the study. This captured both insurance and out-of-pocket payments (deductibles and copayments) and removed differences among the practices that were the result of negotiated payment levels. The resulting costs then were risk-adjusted using 3M Clinical Risk Group software to account for differences in illnesses among the enrollees assigned to each practice. ↳

Quality scores were obtained from MN Community Measurement, which collects data reported by medical practices in Minnesota.[3] We included in our study six quality measures related to disease prevention, cancer screening, and management of chronic illnesses. In addition, we calculated avoidable hospitalizations and inappropriate emergency department (ED) admissions for each practice.

Avoidable ED visits were calculated using an algorithm developed by Billings, Parikh, and Mijanovich,[4] which uses ED diagnoses to assign probability that the ED visit was 1) not emergent; 2) emergent but did not require care in the ED; 3) emergent but could have been avoided with better primary care; or 4) emergent and required emergency care. We calculated an avoidable ED score for each practice based on the frequency of the first two of those measures per 1,000 enrollees.

Avoidable hospital admissions were calculated using an algorithm developed by Bindman, et al.[5] Admissions are considered avoidable to the extent that the diagnosis indicates that they resulted from inadequate primary care in the ambulatory care setting.

Findings

The 53 practices included in our study represented a cross-section of practices in Minnesota. They ranged in size from five to more than 1,500 physicians. Forty percent were physician-owned. The remaining practices were owned by hospitals or integrated systems that have multiple clinic sites, extensive specialty services, and at least one hospital. (It is important to note that when a group practice billed as one unit, it was counted as one practice in our study even though it may have several clinic sites.) All of the group practices in our study provide primary care, but 60% also provide at least some specialty services. All but five of the practices were located in the Minneapolis/St. Paul metropolitan area.

Figure 1

Risk-Adjusted Cost of Care in 53 Minnesota Medical Groups

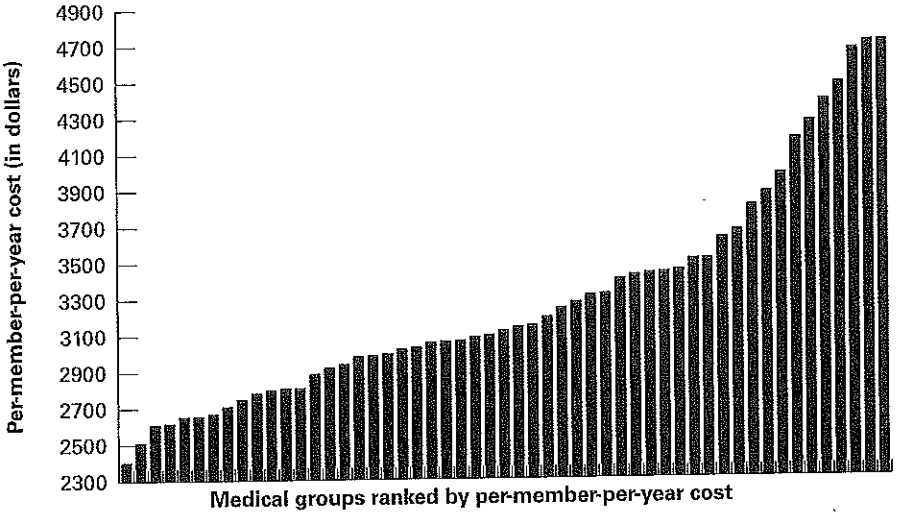
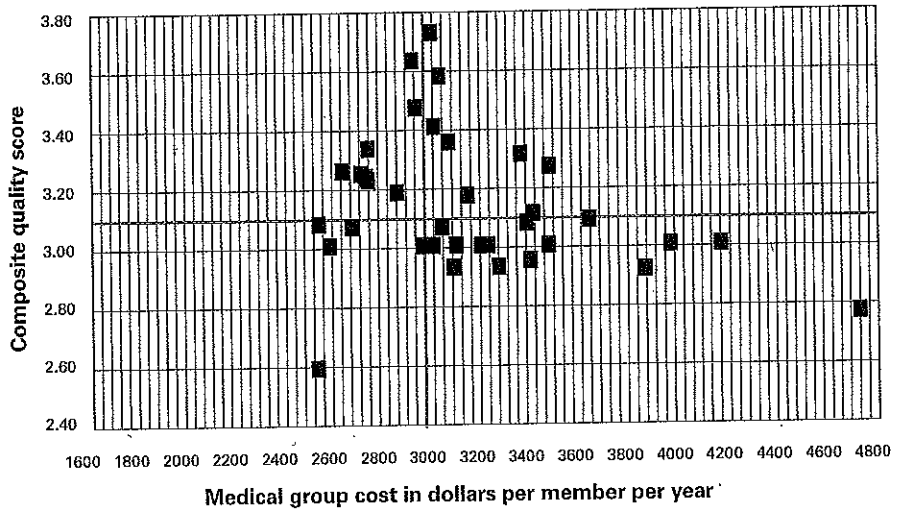


Figure 2

Cost and Quality of Minnesota Medical Groups (N=36)*



*Three practices were dropped because they were outliers.

Cost

As shown in Figure 1, the risk-adjusted cost of care provided by the 53 practices varies considerably. At the low end was a practice with costs of $2,405 per member per year (PMPY); at the high end was one with costs that were slightly more than $4,700 PMPY. The mean cost for all of the practices was $3,197 PMPY. We found that the physicians in the practice with the highest costs used almost twice as many units of services to care for patients as those in the practice with the lowest costs.

The mean cost for the 10 practices with the highest costs was $4,128 PMPY compared with $2,680 PMPY for the 10 practices with the lowest costs. Consequently, switching enrollees from the 10 most expensive practices to the 10 least expensive ones could conceivably save nearly $1,500 PMPY. We caution that these costs do not represent what specific practices are actually paid by enrollees' health plans.

Table 1

Quality of Care Scores* (N=39)

Quality Measures	Mean	Range
Inappropriate ED use*	0.27	0.00 to 1.61
Avoidable hospitalization	2.1	0.00 to 8.06
Optimal diabetes care	16%	5% to 33%
Optimal asthma care	91%	81% to 97%
Mammography rate	82%	65% to 93%
Cervical cancer screening rate	82%	74% to 93%
Colorectal cancer screening rate	67%	25% to 91%
Blood pressure control	63%	40% to 80%
Composite quality score	3.1	2.60 to 3.75

*Scores for inappropriate ED use and avoidable hospitalization are per 1,000 patients. Scores for other quality measures are the percentage of the population at risk who received appropriate care.

Rather, these figures represent the risk-adjusted standardized cost of care based on the units of service used to provide that care.

■ Quality

As previously noted, the quality scores for our analysis are based on data provided by MN Community Measurement for six measures: optimal care for patients with diabetes, asthma, and hypertension, and screening rates for breast, cervical, and colon cancer. These are the measures for which they had the most complete data. The composite score for each practice is a measure of its performance compared with that of all the other practices on each of the measures. Fourteen of the practices had incomplete data and were dropped from this analysis.

As shown in Table 1, the composite quality scores have less variance than the cost data. They range from 2.60 to 3.75 (mean = 3.10) on a scale of one to five with five representing the highest quality rating. However, an examination of the individual quality components included in the composite score shows greater variance across practices. For example, mammography screening rates vary from a low of 65% of women at risk in one practice to a high of 93% in another. Cervical cancer screening varied from 74% to 93% of the women at risk, and blood pressure control ranged from 40% to 80% of patients at risk.

Practices with high scores on one quality measure did not always perform well on the others. Of the 10 practices that had the highest scores for diabetes care, only two were in the top 10 for three of the other measures; two practices were not in the top 10 for any of the other measures (data not shown). Consequently, when these measures are combined, the variance in aggregate quality scores across the practices decreases.

Only 25% of the medical groups in our study had an incidence of inappropriate ED use in 2007 and 2008; but 43% had avoidable hospitalizations. Nine of the practices that had at least one avoidable hospitalization also had at least one inap-

Table 2

Correlation between Cost and Quality (Spearman Correlation Matrix)

	Cost of care[a]	ED rate[b]	Hosp rate[c]	Diabetes care[d]	Asthma care[e]	Breast screening[f]	Cervical screening[g]	Colorectal screening[h]	BP control[i]
Cost of care[a]	1.00								
ED rate[b]	0.13	1.00							
Hosp rate[c]	0.27	0.38	1.00						
Diabetes care[d]	-0.19	-0.09	-0.14	1.00					
Asthma care[e]	-0.15	-0.24	0.04	0.13	1.00				
Breast screening[f]	-0.04	-0.18	0.04	0.01	0.22	1.00			
Cervical screening[g]	-0.04	0.11	0.07	-0.02	0.04	0.39	1.00		
Colorectal screening[h]	0.04	0.00	0.25	0.12	0.22	0.43	0.14	1.00	
BP control[i]	-0.22	-0.18	-0.24	0.28	0.14	0.14	0.01	-0.13	1.00

[a]Resource-based cost of care per member per year
[b]Inappropriate ED use rate/1,000
[c]Avoidable hospitalization rate/1,000
[d]Optimal diabetes care
[e]Optimal asthma care
[f]Breast cancer screening rate
[g]Cervical cancer screening rate
[h]Colorectal cancer screening rate
[i]Blood pressure control rate

propriate ED visit, suggesting that these quality measures are related.

We analyzed the relationship between cost and quality of care two ways. First, we compared the cost and composite quality scores for each practice. Second, we calculated the correlation of specific quality scores with cost. Figure 2 (p. 42) displays the relationship between the composite quality scores and the cost of providing care by the practices reporting complete quality data. These data show that quality of care within these practices does not improve as costs increase beyond approximately $3,000 PMPY. The highest quality scores are achieved by practices that have costs in the $3,000 PMPY range, and scores decline as costs go above $3,100 PMPY.

Our next analysis compared the cost and quality scores to each other statistically by calculating Spearman correlation coefficients for each pair. This indicates the degree to which each score is determined by each of the other scores in the practices (Table 2, p. 43). The magnitude of the influence of these variables on each other was obtained by squaring the coefficient. For example, if a measure has a coefficient of 0.30, it explains 9% of the variance in the paired measure. These data further support the finding that higher costs do not result in higher quality. Other than avoidable hospitalization rates, none of the quality measures included in our study were significantly correlated with the cost of care. Moreover, higher quality scores in one measurement area did not translate into higher quality scores in others. Inappropriate ED use and avoidable hospitalizations were weakly correlated probably because both relate to the overall management of patient care by physicians and the use of ED services that often results in the hospitalization of the patient.

These data also support the previous observation that cancer screening varies within practices. Cervical cancer screening was weakly correlated with colorectal cancer screening, but the coefficient was only 0.43 and the correlation with breast cancer screening was even less. The practices in our study were often not consistent in the provision of these cancer prevention screens.

■ Best Practices

As shown in Figure 2, seven practices had composite quality scores at or above the mean and cost scores that were at or below the mean. Three of these were physician-owned primary care practices, one was a large physician-owned multispecialty practice with multiple clinic sites, two were owned by large integrated delivery systems, and one was owned by a hospital.

Discussion

Our data confirm that there is significant variance among medical group practices in terms of the cost of care provided to individual patients. Patients who receive care from the practices with the highest costs could save more than $1,000 per family member per year if they would shift to practices that are in the middle of the cost distribution and even more if they sought care from those in the lower-cost quartile. Probably the most important finding is that in most cases, these enrollees also would receive higher-quality care by changing to a lower-cost medical group. As to whether the higher-quality, low-cost practices were owned by physicians or part of larger integrated health care systems, the data were mixed. Five of the 10 practices with the lowest costs were owned by physicians, two were owned by hospitals, and three were part of integrated systems. The 10 practices with the highest costs included four that were owned by physicians, three that were owned by hospitals, and three that were part of integrated delivery systems. Clearly, there are factors other than ownership that differentiate high- and low-cost practices. Organizational factors such as electronic health record capacity, staffing, internal practice efficiency, and, most important, the practice culture will be key variables in our next study. Differences in enrollee lifestyles and the degree to which they manage their illnesses also may vary among medical group practices, and that is not accounted for in our analysis. The best practices may be those that provide high-quality care at lower, but not the lowest, costs and have more patients who play an active role in managing their illnesses. MM

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Five Payment Models

The Pros, the Cons, the Potential

By Janet Silversmith on behalf of the MMA Work Group to Advance Health Care Reform

Among the leading strategies to reform health care is the development and implementation of new payment models. The goal is to change the way physicians, hospitals, and other care providers are paid in order to emphasize higher quality at lower costs—in other words, to improve value. In an effort to build on its health care reform activities that began in 2005, the Minnesota Medical Association convened a work group in 2010 to develop recommendations on how payment reform can best be advanced. Among the work group's output was a comparative review of five payment models with respect to how they can support a value-driven health care system. This article summarizes the pros and cons of the five models—fee for service, pay for coordination, pay for performance, episode or bundled payment, and comprehensive care or total cost of care payment. It also offers the work group's recommendations for how these models might be applied in a reformed health care system.

With the 2005 publication of the Physicians' Plan for a Healthy Minnesota, the Minnesota Medical Association's (MMA) recommendations for health care reform, the MMA articulated a goal of changing from the current fee-for-service payment structure, which provides incentives for volume and visit-based care, to one that rewards value and supports innovation in care delivery. One challenge facing physicians, hospitals, payers, and policy makers is managing the transition to new payment models. Because numerous models and countless combinations of them may be employed as alternatives to fee for service, selecting the most appropriate options can be confusing.

The MMA's Work Group to Advance Health Care Reform, which was convened in mid-2010 by the MMA Board of Trustees to review a variety of health care reform topics, assessed five payment models with respect to how well each one supports a value-driven health care delivery system. This article summarizes the work group's findings in regard to the characteristics of each model.* The hope is to increase understanding of the strengths and weaknesses of each model in order to promote more balanced debate about health care policy.

*The analysis performed by the work group addressed payment for services and did not consider mechanisms for physician compensation, which also can play a significant role in influencing delivery system design and physician behavior.

Payment Models

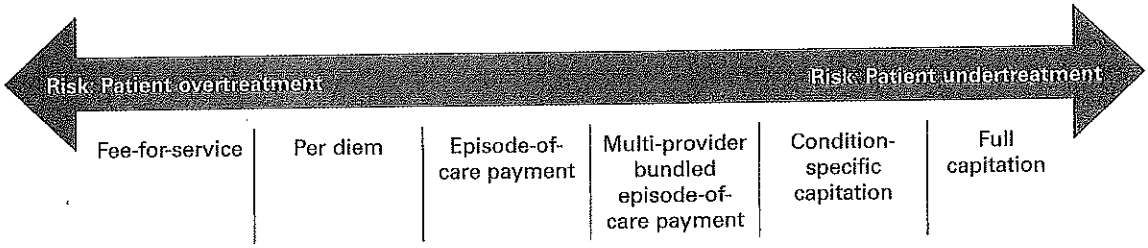
The five payment models that the MMA work group reviewed are fee for service, pay for coordination, pay for performance, episode or bundled payment, and comprehensive care or total cost of care payment. Although variations and combinations of these models exist (and they may be known by different names), the work group concluded that they represented the most common ones currently in use or under consideration.

Several different perspectives can be used to evaluate payment models. For example, the relative financial risk to physicians and other providers may be considered as well as the potential for overtreatment or undertreatment of patients, as illustrated in the figure on p. 46. The framework for analysis used by the work group was how well the various models support the following 11 attributes of a value-driven health system:

1. Care is patient-centered (ie, it takes into account the patient's cultural traditions, personal preferences and values, family situation, and lifestyle; the patient is an integral part of the care team who collaborates with providers in making clinical decisions);
2. Care is safe and effective;
3. Care is timely and accessible (ie, the

Figure

Continuum of Health Care Payment Methods



Source: Miller HD. Creating Payment Systems to Accelerate Value-Driven Health Care: Issues and Options for Policy Reform. Commonwealth-Funded Activity of the Pittsburgh Regional Health Initiative. September 2007.

system is structured in a way that reduces waiting time for both patients and caregivers, and that care and the patients' health information are accessible);

4. Care delivery is efficient (waste is reduced or eliminated);
5. Care is coordinated among providers and across facilities;
6. Continuity of care and care relationships are supported and facilitated;
7. Providers of care collaborate to deliver high-quality, high-value care;
8. Care is optimized by the effective and efficient exchange/communication of patients' clinical information;
9. Physicians and other caregivers engage patients in ways that can maximize health;
10. Accountability for each aspect of a patient's care and for a patient's total clinical care is clear; and
11. Continuous innovation and learning occur.[1]

■ Fee for Service

Fee-for-service payment is reimbursement for specific, individual services provided to a patient. Fee for service is fairly easy to understand as a payment method, as each specific service (or procedure or intervention or piece of equipment) provided is billed and paid for. In its most common form, fee-for-service payment in health care differs from payment for goods or services in other sectors of the economy in the way it is priced. In most consumer markets, the list price is determined by what the consumer is willing to pay for an item or service. In health care, the amount paid for services is usually negotiated between insurers and other payers and providers. In the case of government payers, it is based on defined or administered rates often determined by a formula or funding levels. In addition, fee-for-service payments are somewhat constrained by coding guidelines and rules (ie, CPT and ICD-9) that define what can be billed and paid for.

When analyzed with respect to the 11 delivery system attributes, fee-for-service payment has several benefits. Among them is its emphasis on productivity. Fee for service encourages the delivery of care and maximizing patient visits. As a payment mechanism, it is relatively flexible in that it can be used regardless of the size or organizational structure of a physician's practice, the type of care provided (eg, clinic visit, surgery, therapy session), the place of service (eg, physician's office, nursing home, hospital, surgery center), or the geographical location of care. Fee for service does support accountability for patient care, but it is often limited to the scope of the service a particular physician provides at any point in time.

There are, of course, negative features associated with fee-for-service payment. For one, it offers little or no incentive to deliver efficient care or prevent unnecessary care. In its current form, it is generally limited to face-to-face visits and thereby thwarts activities such as care coordination and management of conditions by phone and/or email.

Although fee for service is easy to understand conceptually, it can be difficult to understand in practice. Patients may struggle to decipher the coding and nomenclature involved in billing, manage the numerous bills and explanations of benefits they might receive, and understand its application in inpatient settings, especially for lab, radiology, and anesthesia services. Because payment is limited to one provider for one interaction, fee for service does little to encourage management of care across settings and among multiple providers.

The work group identified the following types of care as being best suited for fee-for-service payment: emergency and trauma care; elective procedures that are not covered by insurance; and complex diagnostic services and treatments that are difficult to categorize in a bundle or episode of care.

■ Pay for Coordination

This model involves payment for specified care coordination services, usually to certain types of providers. The most typical example of this is the medical or health care home model whereby the medical home receives a monthly payment in exchange for the delivery of care coordination services that are not otherwise provided and reimbursed.

This model has garnered tremendous support among primary care providers. Minnesota's 2008 health care reform act included provisions to promote health care home development and established requirements for health care home certification. Payments to health care homes

are based on a patient's chronic health and care coordination needs. It is too early to know whether Minnesota's health care home model is successful because payments to health care homes have only recently begun and the number of certified health care homes is small.

A number of benefits are associated with the concept of paying for care coordination, which often is payment for support services or work that would not be paid for under a fee-for-service model and, therefore, would not be provided. Those benefits include the potential to improve and enhance the physician-patient relationship and communication between patients and providers; to increase the level of patient and family involvement in care decisions; and to improve flexibility in how, where, and by whom some care can be provided. The model is intended to reduce the delivery of unnecessary care (eg, duplicative tests and procedures, futile care) and some inefficient care (eg, emergency room visits for conditions that would be better handled by urgent care or in a physician's office), thereby enhancing efficiency. Recipients of pay-for-coordination payments also may be able to support care between visits in more cost-efficient ways such as through phone calls, email, or group appointments.

The limitations of the model include the fact that many patients, and possibly some payers and purchasers, may assume or expect care coordination to be provided without additional or separate payment. Explaining the rationale for the coordination payment, a portion of which may or may not come out of the patient's pocket, may be difficult and could undermine the patient-physician relationship. There are also questions as to the specific scope of care-coordination services and the expectations on the part of patients and providers regarding what should be offered in exchange for the care-coordination fee. Because of the time-intensive nature of services associated with this model, it is possible that, if used exclusively, it would limit time available for visits by other patients.

Among the types of care best suited for pay for coordination, as identified by the work group, are primary care management and care coordination for patients with chronic conditions, and care coordination for healthy patients who are at risk for chronic illness.

■ Pay for Performance

Pay for performance can be defined as a payment or financial incentive (eg, a bonus) associated with achieving defined and measurable goals related to care processes and outcomes, patient experience, resource use, and other factors.

The idea of pay for performance has generated significant debate and has been used by most Minnesota payers—both public and private—for several years. The MMA developed principles to guide pay-for-performance implementation in 2007 and has worked hard to assure uniformity in measurement standards.

The evidence regarding the effectiveness of pay for performance in improving quality and reducing costs is mixed.[2] When evaluated against the work group's delivery system attributes, pay for performance offers the potential to improve the quality of care delivered (particularly for care that is measured), enhance the efficiency of care (if measured), encourage collaboration and promote accountability among providers, and encourage improvement by emphasizing outcomes of care.

The limitations center around the operational challenges associated with measurement. As it is currently implemented, many pay-for-performance programs use only single condition-focused measures that do not reflect the complexity of caring for patients with multiple conditions. Although pay-for-performance programs may drive improvements in care that can be measured, such care may be inconsistent with patient preferences. Programs with rigid measures and standards could create incentives for physicians to avoid high-risk patients and fire noncompliant ones. In addition, the administrative work associated with data collection and reporting may take time that otherwise could be devoted to direct patient care.

The work group determined that among the types of care best suited for pay for performance are services for which metrics already exist including management of some chronic conditions (eg, diabetes, asthma, heart failure) and certain surgeries.

■ Episode or Bundled Payments

Episode or bundled payments are single payments for a group of services related to a treatment or condition that may involve multiple providers in multiple settings. This model has been tested in a number of settings. Geisinger Health System in Pennsylvania, for example, developed its ProvenCare model as a bundled payment model for coronary artery bypass graft (CABG) surgery; other organizations have been experimenting with the Prometheus model in which evidence-based case rates are used to determine the total resources required to deliver clinically appropriate care for acute and chronic illnesses. The largest evaluation of a bundled payment model was Medicare's CAGB surgery demonstration, which ran from 1991 to 1996. Four U.S. hospitals participated in the program, and each was paid a single fee for inpatient and physician services during hospitalization, readmissions within 72 hours, and related physician services during the 90-day global period, but not other pre- and post-discharge physician services.[3]

Minnesota's 2008 health care reform act included a variant of the bundled payment approach in the form of baskets of care. Baskets of care were developed for eight conditions and services: diabetes, prediabetes, preventive services for children and adults, childhood asthma, low-back pain, obstetric care, and total knee replacement. But to the best of our knowledge, no providers in the state are offering the baskets and no health plans are paying for them. Minnesota's baskets of care experiment was likely limited by the fact that the baskets were designed as products to be purchased directly by consumers rather than as an alternative payment mechanism.

The plusses of the episode or bundled payment model include its potential

to improve coordination among multiple caregivers; its ability to support flexibility in how and where some care is delivered; its incentive to efficiently manage an episode (reduce treatment/manage costs); its simplicity from a billing perspective (one bill instead of many); and, its clear accountability for care for a defined episode.

The challenges associated with it include the difficulty of defining the boundaries of an episode (what care falls within and outside of the episode); its potential to increase barriers to patients' choice of provider and/or geographic preferences for care if adoption is not widespread; lack of incentive to reduce unnecessary episodes; and the potential to avoid high-risk patients or cases that may exceed the average episode payment.

The work group identified the following types of care as being best-suited for episode or bundled payments: obstetric/maternity care, transplants, coronary bypass surgery, joint replacement surgery, other general surgeries, angioplasty, pacemaker/ICD implantation, and other ambulatory diagnostic or therapeutic procedures.

■ Comprehensive Care/Total Cost of Care Payment

The comprehensive care or total cost of care payment model involves providing a single risk-adjusted payment for the full range of health care services needed by a specified group of people for a fixed period of time.

Total cost of care payment is very similar to capitation, but the main differences are the use of more sophisticated risk-adjustment methodologies, limits on risk exposure, and incorporation of quality measurement.[4]

In Minnesota and elsewhere in the United States, adoption of the total cost of care model has been fairly limited. Some Minnesota commercial payers have expressed an interest in moving toward it as quickly as possible, and some have begun to modify their contracts with larger provider systems in a way that does that (eg, the performance-based payment arrangement between Fairview and Medica; the Northwest Metro Alliance shared-savings collaboration involving Mercy Hospital, Allina, HealthPartners Medical Group, and HealthPartners Health Plan; and Blue Cross and Blue Shield of Minnesota's expanded incentive payment contracts with Allina, Essentia Health, Fairview, and HealthEast).[4-6]

The benefits associated with this model are improved flexibility for providers in terms of care delivery; greater potential for innovation in delivery design; incentive to deliver care efficiently; improved incentive for providers who serve a particular population to collaborate with each other; and improved emphasis on maximizing health.

The limitations of the model include the relative sophistication of data and information systems and analysis required of providers; the likely limited application of the model to larger and more integrated practices; the model's potential to overemphasize population health at the expense of the health of individual patients; the incentive it creates to avoid high-risk or noncompliant patients; the possible decrease in patient choice of provider and/or geographic preferences for care if adoption of the model is not widespread; and the potential for care to be withheld (or perceived to be withheld).

Conclusion

Interest in payment reform is likely to intensify as new models of care delivery are tested and refined. Additional demonstrations and evaluations of the various models are needed to fully understand their relative advantages, disadvantages, and operational feasibility. There is, however, no silver bullet among the options. No single payment model is appropriate for all types of care or applicable in all settings, practice types, and geographic locations. As physicians, policy makers, and others search for improvements in how care is paid for, the work group hopes that their analysis will help shine a light on the best paths to pursue. **MM**

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2010 American College of Physicians Poster Competition Winners

Each year, the state chapters of the American College of Physicians invite medical students, residents, and fellows to take part in a scientific poster competition. Residents and students submitted more than 170 posters for consideration at the Minnesota chapter's annual meeting in Minneapolis last November. Each of the internal medicine training programs (Abbott Northwestern Hospital, Hennepin County Medical Center, Mayo Clinic, and the University of Minnesota) was well-represented with submissions in the clinical vignette, research, and quality improvement categories.

Posters were judged by practicing internists as well as internists from the state's academic medical centers. Each judge conducted "Poster Rounds," which allowed the judge as well as the presenter's peers the opportunity to view the poster being presented. Criteria used by judges included clinical relevance, originality, and written and visual presentation.

The Minnesota chapter will sponsor the winners in presenting their posters at the American College of Physicians' annual meeting in San Diego in April.

Congratulations to all of the participants on their excellent work.

■Clinical Vignette Winner

Gout Encephalopathy: An Under-Recognized Complication of Crystalline Arthritis?

By Michael Wilson, M.D., Arthur Beyder, M.D., Ph.D., and Thomas Beckman, M.D., Department of Internal Medicine, Mayo Clinic

Rheumatological disorders are not frequently considered in the differential diagnosis of patients with delirium and fever. Previous studies have described patients with delirium secondary to calcium pyrophosphate deposition disease. However, we could find only one case report of a patient with delirium attributed to gout.

Case: A 72-year-old woman with a history of gout and mild cognitive impairment was admitted to the hospital after five days of confusion, functional decline, and knee pain. On presentation, her temperature was 38.3 degrees C, and she was oriented to name only. Physical examination revealed synovitis, erythema, warmth, and tenderness of the left knee and bilateral MCP, PIP, and DIP joints in her hands. Her white blood cell count was 19,000/mm3. Extensive testing for infection including chest X-ray, urinalysis, blood cultures, stool studies, cerebrospinal fluid analysis (with PCR for herpes, varicella, and West Nile Virus), computed tomography of the head and abdomen, and abdominal ultrasound was unremarkable. Arthrocentesis of her left knee revealed intracellular urate crystals with a negative gram stain and culture. The patient completed 48 hours of empiric intravenous antibiotics. Even after antibiotics were stopped after no infectious etiology was identified, the patient had continued delirium, fever, and leukocytosis. She was diagnosed with acute polyarticular gout and was subsequently treated with oral colchicine. Twenty-four hours after initiation of colchicine treatment, the patient's delirium, fever, and leukocytosis completely resolved. At one- and three-month follow-up visits, the patient had continued baseline mental status.

Discussion: Up to 50% of patients with polyarticular gout present with systemic fever and leukocytosis. Monosodium urate crystals trigger the release of cytokines. Fever indicates that cytokines have crossed the blood brain barrier and reached the hypothalamus. Cytokines exert other effects on the central nervous system that have been implicated in the pathogenesis of delirium: decreased acetylcholine release, increased dopamine release, increased sleepiness, increased non-rapid eye movement sleep, increased slow-wave activity on EEG, neuronal injury, and seizures. Colchicine is a potent inhibitor of cytokines and, thus, may improve delirium associated with gout-induced cytokine release.

Conclusion: Acute polyarticular gout can present with delirium in addition to fever and leukocytosis. This case illustrates the challenge of evaluating a patient with altered mental status and highlights the importance of considering crystal deposition arthropathies in the differential diagnosis. Prompt diagnosis and treatment of polyarticular gout-induced delirium can lead to rapid improvement in mental status.

■ **Research Winner**

Comparative Genome Sequencing of an Isogenic Pair of Clinical MRSA Isolates Obtained during and after Daptomycin Treatment Failure

By Brett Gourley, M.D., Susan Boyle-Vavra, M.D., Marcus Jones, M.D., Mike Holmes, M.D., Rebecca Ruf, M.D., and Aaron DeVries, M.D., University of Minnesota

Staphylococcus aureus is a pathogen that causes a variety of human syndromes including skin and soft-tissue infections, endocarditis, osteomyelitis, and septic shock. The increasing prevalence of methicillin-resistant *S. aureus* (MRSA) infection in both community and health care settings has made beta-lactam antibiotics unreliable for empiric therapy of *S. aureus* infection. Moreover, the emergence of MRSA isolates with resistance to the glycopeptide vancomycin (Van) suggests that this agent may also become unreliable for treating MRSA infection.

Daptomycin (Dap) is a bactericidal lipopeptide antimicrobial that is effective against a broad spectrum of gram-positive bacteria including MRSA and vancomycin-resistant *S. aureus*. It was approved in 2003 by the U.S. Food and Drug Administration for treatment of complicated skin and soft-tissue structure infection, and in 2006 for bloodstream infection and right-sided endocarditis. However, failed treatment of *S. aureus* infection concomitant with the development of resistance to Dap has increased. Complicating matters is the fact that development of Van-intermediate resistance resulting from therapy with Van can sometimes lead to Dap cross-resistance. Conversely, stepwise incubation in increasing concentrations of Dap can increase the MICs of both Dap and Van.

Since Dap is often used as an alternative therapy for MRSA infection following treatment failure with Van, a better understanding of the mechanism of cross-resistance between Dap and Van is needed. Several recent studies have provided insight into the basis for development of Dap resistance in *S. aureus*. By performing comparative genomic sequencing, Friedman et al. identified polymorphisms in four genes (mprF, yycG, rpoB, and rpoC) associated with the development of Dap resistance following stepwise *in vitro* incubation of a Dap-susceptible MRSA isolate in Dap. Polymorphisms in mprF and yycG were subsequently found in clinical isolates by performing targeted DNA sequence comparisons of these genes between isogenic Dap-S and Dap-R clinical isolate pairs obtained pre- and post-Dap therapy. However, a genomewide sequence comparison has not been performed to date between a clinical Dap-R isolate and an isogenic Dap-S isolate.

We documented clinical Dap treatment failure in a patient with persistent MRSA bacteremia. Dap was administered after failure of initial therapy with Van and piperacillin/tazobactam. A pair of Dap-S/Dap-R isogenic MRSA isolates obtained before and after initiation of Dap therapy provided us with the opportunity to explore the mechanism of Dap resistance by performing a genomewide comparative analysis. To this end, we applied pyrosequencing technology to determine and compare the genome sequences of the two isolates. This allowed us to identify polymorphisms associated with Dap resistance obtained *in vivo* in association with Dap treatment failure.

■ **Quality Improvement Winner**

Improving Utilization of Palliative Care in End-Stage Heart Failure

By Andrew Olson, M.D., Sandra Schultz, M.D., Hamza Khalid, M.D., Yoel Korenfeld-Kaplan, M.D., James McCabe, M.D., Simon Lick, M.D., Malinda Jorgensen, M.D., and Paula Skarda, M.D., University of Minnesota

Heart failure is a leading cause of hospitalization and mortality in the United States. The progression of heart failure is characterized by a relapsing and remitting course that occurs over months to years. Unlike with other diseases that lead to death, it is difficult to provide an accurate prognosis for patients with heart failure. Thus, referrals to and utilization of palliative care are low among patients with end-stage heart failure.

Methods: We performed a literature review to identify risk factors for death within six months of admission for heart failure and examined these risk factors in 257 consecutive patients admitted to Regions Hospital in St. Paul from January 2009 to January 2010 using the heart failure order set. We analyzed this cohort of patients to determine which factors could be used to predict death within six months of admission for heart failure and which of these patients were referred to palliative care. We then used this information to create additional interventions to increase palliative care referrals for patients with severe heart failure.

Results: Our literature review identified four risk factors for death from heart failure within six months of hospital admission: decreased sodium level, decreased systolic blood pressure (SBP), increased blood urea nitrogen, and presence of peripheral arterial disease. Overall, 257 consecutive patients admitted with the heart failure order set between January 2009 and January 2010 were included in the analysis; 22% of these patients died within six months. Sixteen percent of patients were referred to palliative care. Those who were referred to palliative care were statistically more likely to be older (79 years versus 68 years, $p< 0.05$), have SBP lower than 120 mmHg (38% versus 23%, $p<0.05$), have two or more of the risk factors identified in the literature review (40% versus 12%, $p<0.05$), and have NYHA Class IV heart failure (40% versus 20%, $p<0.05$). Patients referred to palliative care were more likely to die within six months (40% versus 18%, $p<0.05$).

The four criteria identified, in conjunction with accurate classification according to the NYHA classification system, are useful in determining which patients with heart failure are appropriate candidates for referral to palliative care. Using these data, we modified the heart failure order set to include information

for providers about risk factors for death within six months from heart failure and created a decision-support tool for providers to better identify which patients with heart failure are likely to benefit from palliative care. The order set encourages consideration of palliative care referrals for patients meeting the risk factors for death from heart failure within six months. A similar analysis will be conducted to determine whether the provider education and decision-support tool are helpful for increasing the number of appropriate palliative care referrals in hospitalized patients with heart failure.

■ **Medical Student Winner**

An Uncommon Cause of Chronic Diarrhea and Peptic Ulcer Disease

By Daniel C. Chan, Douglas A. Simonetto, Daniel K. Rogstad, Josephine F. Haung, Michael D. Leise, and Stephen C. Hauser, Mayo Medical School

Case: A 60-year-old male presents with a five-year history of progressively worsening daily, watery diarrhea. One year ago, the patient began vomiting daily and experienced progressive weight loss. During the past month, he experienced four episodes of intractable, voluminous diarrhea with ascending muscle cramps, upper extremity paresthesias, and near-syncope. Each of these episodes required hospitalization with electrolyte replenishment.

The patient's medical history was significant for gastroesophageal reflux. Beginning four years ago, he was treated with 40 mg esomeprazole daily. His family history was unremarkable, and he denied significant tobacco or alcohol use. Before the patient was transferred to our center, he underwent laboratory testing and an EGD exam. His labs were remarkable for magnesium (0.0 mg/dL) and potassium (2.9 mmol/L). His VIP was normal at 44 pg/mL, albumin normal at 4.2 g/dL, and gastrin elevated at 663 pg/mL (normal < 100). The EGD revealed hypertrophic gastric folds of the body and antrum and a duodenal ulcer. Biopsies showed nonspecific hypertrophic hyperplastic gastropathy of the stomach with negative immunohistochemical staining for *H. pylori* and normal duodenum.

After arrival at our institution, the physical exam revealed a gentleman in mild distress with normal vital signs and an otherwise normal physical exam. The differential included screening for Menetrier disease, gastrinoma, lymphoma, and infiltrative diseases. A repeat EGD with EUS revealed a large quantity of gastric fluid, multiple duodenal ulcers extending well beyond the bulb, and a peri-pancreatic lymph node suspicious for an islet cell tumor. A triphase CT scan of the abdomen demonstrated a 7 mm hypervascular nodule in the medial wall of the descending duodenum, confirmed with an Indium In-111 pentetreotide study (OctreoScan). There was no evidence of hepatic metastasis on EUS, CT, or OctreoScan.

The patient subsequently underwent duodenotomy. A firm, mobile nodule on the medial wall of the duodenum was identified and excised. Pathology determined it was a 0.9 X 0.8 X 0.5 cm well-differentiated neuroendocrine neoplasm. The patient had no postoperative complications and reports complete resolution of his symptoms.

Discussion: This case highlights the classic features of a gastrinoma (Zollinger-Ellison syndrome) including pyrosis, dyspepsia, and large volume watery diarrhea accompanied by endoscopic findings of multiple duodenal ulcers. Sporadic gastrinomas have an incidence of only 0.1 to 0.2 per 100,000 persons. Gastrinomas consist of neuroendocrine cells that autonomously secrete gastrin, a peptide that normally stimulates acid secretion from parietal cells. Most gastrinomas originate in the duodenum and are less common in the pancreas. Gastrin has a trophic effect on the stomach resulting in hypertrophic gastropathy. Because of acid hypersecretion, multiple ulcers may be found and located as far distally as the jejunum. Treatment consists of high-dose proton pump inhibitor therapy and surgical resection. Prognosis is good for gastrinomas without liver metastasis, with patient survival being greater than 80% at 15 years as compared with only 30% at 10 years for those with liver metastasis. Sporadic gastrinoma is an uncommon cause of chronic diarrhea and peptic ulcer disease. MM

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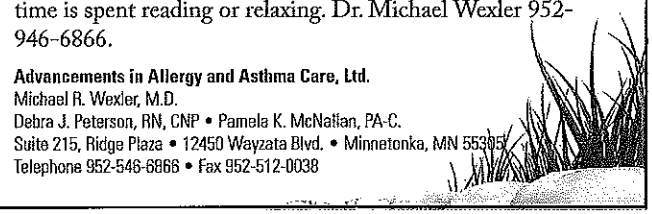

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We Need to Talk

| By J. Lynn Price, M.D.

A doctor's story illustrates the importance of discussing end-of-life wishes.

My father died a little over a year ago. He was 83 and had hypertension and occasional atrial fibrillation. His INR was normal, but he had a spontaneous cerebral hemorrhage that rendered him mostly obtunded and only occasionally responsive. He had been in the ICU for three days when I explained to my mother what was probably to come: a feeding tube, long-term care, and rehabilitation. The idea that he wouldn't come back around hadn't yet become real to us.

The next day, the ICU nurse casually said that the doctor had ordered a feeding tube. My mom and I looked at each other, and I could see the panic in her eyes. I told the nurse to please wait. "We need to talk first." Had we not been in the room, the tube would have been placed.

I was surprised that there had been no "death talk." Wasn't taking measures such as inserting a feeding tube something that should be discussed first? We told the nurse we might be considering hospice instead. When the rehabilitation doctor came in and told us they were getting things lined up, we told him the same thing: that we might be considering hospice. We can't plan how we'll die, but we all know what we don't want to happen—and this was it.

Many people wouldn't have known what that feeding tube meant. So we were ahead of most families in that arena—my dad was a family doctor as are two of his children. You could tell the nurses were relieved to have a family on top of things. But nevertheless, we needed to have that death talk. Making the decision to pull a feeding tube later would have been that much harder.

When a family is in shock, the medical community can aid in their processing of the situation just by having "the talk." This needs to involve more than establishing the code status—my father was already DNR. It needs to involve talking about options and what the patient would want at the end.

We need to protect the dying in the same way we do the living. We need to ensure that everyone's final wishes regarding their medical care are known and honored. Just as we mandate seatbelt use and other safety measures, we ought to mandate that hospitals have a discussion with family members before life-saving measures such as placing feeding tubes are taken or transfers to rehabilitation units take place.

The morning after the nurse told us about the feeding tube, my brother found my dad's living will. We didn't need it to know what to do, but having it lifted an incredible burden from my mother. It was a gift to us from him. We did what our father wanted, and he died seven days later. MM

J. Lynn Price, M.D., is a family physician at the Fairview Blaine Clinic. Her father, James G. Price, M.D., was a family physician in Colorado for 26 years. He served as president of the American Academy of Family Physicians and the American Board of Family Practice and was dean of the University of Kansas Medical School.