



Quality Matters

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A BIMONTHLY REPORT ON INNOVATIONS IN HEALTH CARE QUALITY IMPROVEMENT

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Welcome to *Quality Matters*, a bimonthly roundup of news and opinion on quality and efficiency, information technology, performance improvement initiatives, and policy innovations.

In Focus: Using Pharmacists, Social Workers, and Nurses to Improve the Reach and Quality of Primary Care

By Sarah Klein

Summary: *Studies of interdisciplinary health care teams have demonstrated that use of these teams can lead to improvements in the quality of primary care, but their impact on total health care costs and utilization has not yet received sufficient attention. Still, available evidence suggests that these teams may help expand the nation's capacity to provide primary care services, which is much needed due to a shortage of physicians and other primary care providers. But doing so quickly will require the financial support of federal, state, and private payers, as well as an investment of time by health care providers.*

As the landmark health reform law goes into effect, bringing millions of uninsured Americans onto insurance rolls over the next five years, demand for primary care services will increase. So, too, will demand for more accessible, effective, and efficient models of primary care.

Rather than hiring more primary care physicians, many medical practices, health centers, and other primary care settings have been experimenting with innovative models of care that both extend the reach of primary care physicians and increase the quality of ambulatory services. Many of these models bring pharmacists, social workers, nurses, and nurse practitioners to primary care practices. With them comes a new set of skills that can improve care and lower costs for patients with depression, physical disabilities, and other conditions that have proven difficult to treat in primary care settings.

Using teams of multidisciplinary providers in a primary care setting “allows far more intensive intake and assessments than a physician alone could do,” says Robert J. Master, M.D., president and CEO of the [Commonwealth Care Alliance](#), a

Patient population	Typical composition of team	Ratio of nurse practitioners to patients
Patients with one or more physical disabilities	Nurse practitioner, physician, physical therapist, social worker, and durable medical equipment coordinator	1:40
Frail elderly patient (may be homebound)	Nurse practitioner, physician, social worker, and personal care attendant	1:45
Medicaid-eligible patients with complex chronic illness(es) and behavioral health or substance abuses issues	Nurse practitioner, physician, social worker, and community health worker	1:90

Source: Commonwealth Care Alliance, August 2010.

Boston-based nonprofit health plan and delivery network that has introduced nurse practitioners to 25 community-based medical practices in Massachusetts.¹ The nurse practitioners, whose salaries are generally lower than physicians, lead teams of providers caring for patients with physical disabilities and complex medical conditions. They have assumed responsibility for assessments of patients, ongoing management, and first call while the physicians manage inpatient care.

The composition and caseload of the nurse practitioners' teams vary significantly with the condition and acuity of patients (see Table). Community health workers are added to some teams to help engage Medicaid-eligible patients who are distrustful of providers, while personal care attendants help homebound patients with the tasks of daily living. The nurse practitioners determine the level of care needed and authorize all required services, saving the time and cost of preauthorization procedures.

The Commonwealth Care Alliance invested heavily in the model—spending approximately \$4 million on 25 practices, many of which are located in low-income, safety net clinics. The investment, which covers the cost of hiring the nurse practitioners by the primary care practices and investing in infrastructure such as electronic medical records, is more than offset in reductions in hospitalizations for preventable conditions as well as delays in nursing home placements, Master says. The number of hospital days per year per Commonwealth Care Alliance member who is dually eligible for Medicare and Medicaid is 2.0—77 percent lower than the rate of hospital days (3.6) per dually eligible patient enrolled in the Medicare fee-for-service program.² Within the Commonwealth Care Alliance program, the percentage

of nursing home-certifiable patients permanently placed in the nursing home per year is 8.5 percent, compared with the Massachusetts rate of 12 percent. “We believe the return on investment is substantial,” Master says.

Extensive Redesign Required

Having an integrated delivery system and local insurers willing to invest in the redesign of primary care practices has enabled some providers to move forward with team-based models of care.

After receiving a grant from a local insurer in 2008, [Fairview Health Services](#), a nonprofit, integrated delivery system with seven hospitals and more than 100 primary and specialty care clinics serving residents of Minneapolis–St. Paul, began experimenting with a team-based model of care in two (and then four) of the 41 primary care clinics affiliated with its Eagan, Minn., operations. The teams include health coaches, pharmacists, and social workers or psychologists, as well as nurses who help manage chronic conditions such as hypertension by following protocols set by physicians.

The program has redefined the roles of clinic employees. Receptionists, who arrive before the clinic opens and take calls from patients, brief the team about the unfolding day. Health coaches use motivational interviewing techniques to find ways to encourage patients to pursue overdue mammograms or quit smoking. And instead of seeing a succession of patients in one-on-one visits, physicians have begun to proactively manage a panel of patients, looking for high-risk ones in need of care. “It’s expanding a clinician’s ability to serve a population of patients,” says David Moen, M.D., executive medical

director of innovation and network development, of the pilot.

Because the pay of clinic staff is based on their performance on measures of cost, quality, and patient satisfaction, rather than productivity, more care has migrated to the Internet and telephone. And costs appear to be holding steady. “What we’ve seen with our early data with these four clinics, we’ve been able to track that there’s been a flattening of the total cost-of-care curve,” for the 20,000 patients attributed to those clinics, Moen says.

Fairview plans to extend the model to all 41 primary care clinics in Eagan by the end of 2010. To finance the expansion, it is renegotiating its compensation plan for its employed physicians as well as its contracts with insurers. The compensation model for physicians will focus on panel size, acuity, outcomes, patient engagement, and the total cost of care. The new contracts with insurers will enable the clinic to share in the savings that ensue from better-coordinated care.

Fairview has also been experimenting with including patients in its team-based approach. Fairview has created a Web-based learning community for the families of children newly diagnosed with diabetes, which is only accessible to clinicians, patients, and their parents. The forum is supported by diabetes educators, endocrinologists, and other families with diabetes. “They’re closed communities, and in those communities you can also access your care team. It’s fascinating to watch. You just put the patients and the clinicians in the room and they create the solution,” Moen says. Fairview plans to expand this service for families of children with autism.

Models Reach Underserved Populations

A team-based model has similarly improved the care of depression in patients participating in the DIAMOND program, which stands for “Depression Improvement Across Minnesota, Offering a New Direction.” The program enhances the screening and treatment of depression among patients in 82 primary care practices in Minnesota by enabling those practices to hire case managers and consulting psychiatrists to oversee the care and follow-up of patients who have screened positive for chronic or severe depression.

Primary care physicians introduce patients to the care managers, who maintain frequent contact with the patients, educating them about depression and checking for side effects of medication and other issues that might warrant follow-up care. The consulting psychiatrist reviews cases in which patients are not improving and may recommend modifications in their medication regimens to their primary care physician. In more complicated cases, a patient may be referred to a psychiatrist for care.

Of the 1,759 patients contacted after being in the program for at least six months, 45 percent are in remission. Another 16 percent have seen at least a 50 percent reduction in severity of their depression. These results are 10 times better than the improvement noted under the usual primary care treatment in Minnesota, according to the Institute for Clinical Systems Improvement (ICSI), which brought psychiatrists, employers, health plans, and patients together to develop the program.

The **IMPACT** (“Improving Mood: Promoting Access to Collaborative Program”) program upon which the DIAMOND program is based reported 45 percent of patients had a 50 percent or greater reduction in symptoms of depression, compared with 19 percent of patients in the usual care group.³ Unlike IMPACT, which required nurses with psychiatric experience to perform the role of care manager, DIAMOND has hired medical assistants, social workers, licensed practical nurses, and dietitians to perform as care managers. Early results suggest that medical assistants have the best results and the highest caseloads. The medical assistants “are extremely familiar with how primary care clinics function” and seem to handle anything that comes their way, says Nancy Jaeckels, vice president of member relations and strategic initiatives for ICSI.

ICSI is ready to spread the model to more clinics in Minnesota, but must first win the support of insurers, who now make an unspecified monthly payment to clinics for each patient enrolled in the program. The insurers want to see evidence of the program’s cost-effectiveness first, Jaeckels says. If the DIAMOND program follows the timetable of the IMPACT program on which it is based, such data will not be available until 2011, its third year. The IMPACT program saved \$3,363 per patient on average during four years, but the savings did not accrue until years three and four of follow-up. Part of the reason

is the first-year cost of the intervention, which was \$522.⁴ Still, early evidence suggests the DIAMOND program is having a short-term, positive impact.

Another serious issue is that providers participating in the DIAMOND program are not reimbursed by all payers, including Medicare and Medicaid. “Most of them are eating the cost,” of providing care management services to those patients in those programs, Jaeckels says. Some are pursuing grants to cover the costs, an approach that is not sustainable in the long term.

Innovation First, Payment Later

Nonetheless, many who pursue new models of care often do so in hopes that insurers will recognize their value and change their coverage accordingly. Hilde Berdine, Pharm.D., assistant professor of pharmacy practice at Duquesne University in Pittsburgh, Pa., serves as a pharmacist in a local, two-physician primary care practice. The physicians refer patients with high blood pressure, high cholesterol, and diabetes to her to improve adherence to medication regimens and reduce side effects of medication. Her services are rarely reimbursed because many pharmacy benefit programs do not recognize her as a provider, though she has sought such credentialing. Instead, she provides the service to give her students a model of the future of pharmacy services. “I am not unique in that respect,” says Berdine. “There are pharmacists doing this all over the country, but it is in the spirit of trying to develop practice [models] that we think are going to take hold in the future,” as their impact on quality and costs becomes apparent.

Gaining an entrée into primary care practices also requires reassuring physicians that their own livelihoods or quality of care are not at risk, says Brian Isetts, Ph.D., professor in the department of pharmaceutical care and health services at the University of Minnesota. Isetts helped establish a consulting pharmacist program for Fairview Health Services in Minnesota 10 years ago. When speaking to physicians about the prospect of such programs, he often begins his presentations by pointing out that pharmacists who do medication management are not seeking independent prescribing privileges, nor trying to implement therapeutic substitutions on behalf of insurance companies, or changing doses without physician input or consent. Once he clarifies that, physicians often welcome pharmacists’ assistance and begin sending their

more challenging patients with diabetes, heart failure, and other conditions their way. Fairview estimates that its medication therapy management program has avoided 48,000 medication therapy problems and 17,000 events, including hospitalizations, emergency department visits, and clinic visits.

Many physicians welcome the efficiency team-based models bring. At [Geisinger Health System](#) in Danville, Penn., nurse case managers employed by Geisinger’s health plan were added to primary care practices to oversee care for high-risk Medicare enrollees. Sharing oversight of these patients among health plan employees enables nurses in the practice to provide the same sort of case management services for non-Medicare patients.

Adding Robots to Teams

Geisinger has also automated many staff functions, which further frees up employees for direct patient care. Automated systems identify and call patients about important screening exams. One of two staffers is available to answer questions that may arise, but the orders for recommended tests are automated by the system. “What this has done is allow us to increase our preventive services,” says Thomas R. Graf, M.D., chairman of community practice service for Geisinger. The number of patients who received all recommended care increased by 250 percent since the program began three years ago. The system, which monitors tests for 210,000 patients, and the reporting of all results through an electronic medical record has enabled physicians and other health care professionals to concentrate on complex medical decisions and patient relationships. Physicians find that their work is more interesting and challenging, patient care is better managed, and patients are happier, Graf says.

The program, which will have been spread to 38 primary care practices by October, has already had a dramatic impact on quality and cost measures. The rates of hospitalizations per 1,000 patients between January and June of 2009 in medical homes fell 22.8 percent, compared with a control group of similar Medicare patients. The rate of readmissions during the same period fell by 23 percent. Data from a two-year period ending in December 2008 for 11 sites show cost savings of 4.5 percent relative to the comparison group after accounting for the additional start-up and operational costs of the technology. Graf stresses that even physicians with less automated systems

can get results. “Most of the stuff we do, two doctors, a nurse, and a paper and pencil could do,” he says.

Having a partner helps. Independent physicians may find one in hospitals that are keen to lower readmission rates. Insurers also may help. Physicians in the Geisinger system received a financial incentive to participate in the program. Medical practices received start-up money of \$5,000 to \$10,000 per month in the first year to hire staff, install phone lines, or otherwise improve infrastructure. Physicians also received \$18,000 the first year; the second year, they received the same amount, but payments required them to achieve certain performance levels on cost and quality measures. There is also a shared savings program between the health plan and the providers. (The total savings for the first 11 sites was \$2.5 million.)

While money may provide a powerful incentive for many physicians, developing teams can be challenging. Communication among team members who are trained in different disciplines is crucial to effective teamwork, says Ronald Stock, M.D., medical director of [PeaceHealth](#), a nonprofit Catholic health system with six hospitals serving residents of Washington State, Alaska, and Oregon. Some of its hospital-based outpatient clinics are staffed by teams of geriatricians, nurse practitioners, nurses, social workers, dieticians, and pharmacists,

they view the old ones differently. “They all, to a person, from what we could tell, think their jobs are 10 times better and their biggest fear is that we would go back,” Moen says.

Notes

¹ No relation to The Commonwealth Fund

² Data supplied by Commonwealth Care Alliance for patient populations with a similar risk score.

³ J. Unützer, W. Katon, C. M. Callahan et al., [Collaborative Care Management of Late-Life Depression in the Primary Care Setting: A Randomized Controlled Trial](#), *Journal of the American Medical Association*, December 11, 2002 288(22):2836–45.

⁴ J. Unützer, W. J. Katon, M. Fan et al., [Longer-Term Cost Effects of Collaborative Care for Late-Life Depression](#), *American Journal of Managed Care*, February 2008 14(2):95–100.

who focus on frail elderly patients with multiple chronic health conditions.

Developing, nurturing, and sustaining a team is an ongoing effort. “Not only do we come from different disciplines, but we all as individuals have communication styles,” Stock says. Physician leadership must be encouraged and training for all staff is required. PeaceHealth uses a variety of means to improve and test team cohesion. “When we developed our interdisciplinary team, we actually had a consultant come in and help us learn how to communicate,” Stock says. PeaceHealth also uses a survey to assess key aspects of teamwork: whether the team is operating with clearly defined goals and an understanding of the means to accomplish them, whether team members have clearly defined roles and expectations of one another, and whether they handle conflict maturely. Patient care conferences, which are conducted weekly and involve entire teams, provide a venue to practice communicating, he says.

While the transition to a new model of care is difficult and some systems find that staff initially resist change, many say once employees experience the new model,

Case Study: Aetna's Embedded Case Managers Seek to Strengthen Primary Care

In a pilot program, the national insurer Aetna has placed nurse case managers in 36 primary care practices to work alongside providers in their offices to help manage patients' conditions. Thus far, the program has involved some 20,000 patients, all members of Aetna's Medicare Advantage plan, and has resulted in improved care processes, some improvements in care outcomes, and reduced numbers of hospitalizations.

By Martha Hostetter

Issue

Nurses, physician assistants, and other health care professionals are increasingly being added to primary care practices to help meet demand for services and improve the quality of care, particularly for patients with chronic conditions that are difficult to manage through traditional office visits alone. Sometimes, primary care practices hire case managers themselves, often in response to incentives from payers to improve care and control costs. But increasingly over the past decade, private insurers have been employing case managers to help their contracted providers manage patient care.¹ In these arrangements, the case managers are usually located off site (i.e., not at physicians' offices). Some payers are experimenting with arrangements in which case managers work in the practices, under the theory that closer collaboration with physicians will produce better results.

This case study focuses on Aetna's use of "embedded" nurse case managers, who work in primary care practices to help manage care for the insurer's Medicare Advantage members. In collaboration with primary care providers, the case managers develop care plans, monitor ongoing symptoms, and coach patients to manage their conditions—helping to build continuity of care and enabling patients to receive critical tests and procedures. Such efforts have been shown to improve health outcomes and help patients avoid complications and unnecessary hospitalizations.²

Aetna is a national insurer that offers commercial insurance as well as Medicare and Medicaid plans, with some 18.6 million medical members overall. The

insurer actively manages care for about 20 percent of its Medicare members, a high rate by industry standards.³ This includes management of complex cases, including patients with multiple conditions, as well as interventions targeted at certain diseases, such as asthma or diabetes.

Randall Krakauer, M.D., Aetna's national Medicare medical director, proposed and championed the use of embedded case managers as a way to improve management of chronic conditions and reduce hospitalizations among its Medicare Advantage members. Marcia Wade, M.D., a senior medical director at Aetna, oversees the pilot program. Thomas Claffey, M.D., is medical director of NovaHealth, an independent practice association based in Portland, Maine, that has had one of Aetna's embedded case managers working in its InterMed multi-specialty group practice since January 2008.

Krakauer views this as a pilot program to try to extend and improve upon Aetna's efforts to help their members' access the most appropriate care and control costs. "We had an extensive program of telephonic case management, which was producing good results, and the case managers were working their best to collaborate with physician offices," Krakauer says. Still, he said, "it's very hard to engage physicians if you just call and say, 'Hi, I'm so and so with Aetna and I'd like to discuss this case with you.' We knew the process could be improved."⁴

Population Served

In 2007, Aetna signed its first contract with a physician practice to have a nurse case manager work on site to help manage care of Medicare Advantage patients. The designated case managers, who are all registered nurses, now work with 36 practices—including primary care practices and multispecialty group practices around the nation—reaching some 20,000 Medicare Advantage patients. Although this is a small part of Aetna's total Medicare Advantage membership of 451,000, the insurer is actively expanding the program.

An embedded case manager works exclusively with a practice when they have 1,500 patients enrolled in Aetna's Medicare Advantage plan. In practices with smaller memberships, the case managers spend part of their time on site. The case managers have expertise in attending to the particular needs of older adults, including handling multiple chronic conditions, dementia, and depression. In addition, they receive training in Aetna's "Compassionate Care" program for end-of-life care.

Process

Aetna hires the nurse case managers and negotiates contracts with physicians who are willing to have them work in their office. The practice receives an extra fee, on top of their Medicare Advantage contract, for each patient enrolled in the case management program. It can earn additional incentive payments for meeting quality targets. While each practice works with Aetna to choose targets appropriate to its patient population, they must include measures of recommended health care processes and at least one measure of outcomes. In addition, all practices track the number of hospital admissions and the number of acute-care days for participating patients.

Aetna's team of Medicare case managers identifies patients in need of services through health risk assessments, concurrent review, and predictive modeling. In addition, physicians and other providers can nominate patients whom they believe need help managing their conditions—a process that produces even more timely interventions. “Instead of waiting to have a patients' data go into our system, providers can reach out directly to the case managers to ask for their help,” says Wade.

The case manager meets with the practice's clinical team to discuss the needs of the patients selected for the program and to pinpoint any psychosocial barriers to following a plan of care. Case managers then reach out to patients by phone to ensure they have the information and tools needed to follow their care plan. For a 75-year-old woman with mild dementia, arthritis, and diabetes, a case manager would assess whether she and her caregivers are able to provide optimal care. Is her home environment safe? Do her caregivers understand how to look after her, and are they capable of doing so? Is her dementia affecting her ability to handle her medical conditions? The case manager would then check in by telephone on her symptoms, make adjustments to her care regimen, and report back to her physician on her status. This type of follow up might take place several times a week initially, then less often as patients' conditions improve or stabilize. At patients' request, case managers occasionally sit in during office visits to close the loop of communication between themselves, the patients, and their providers.

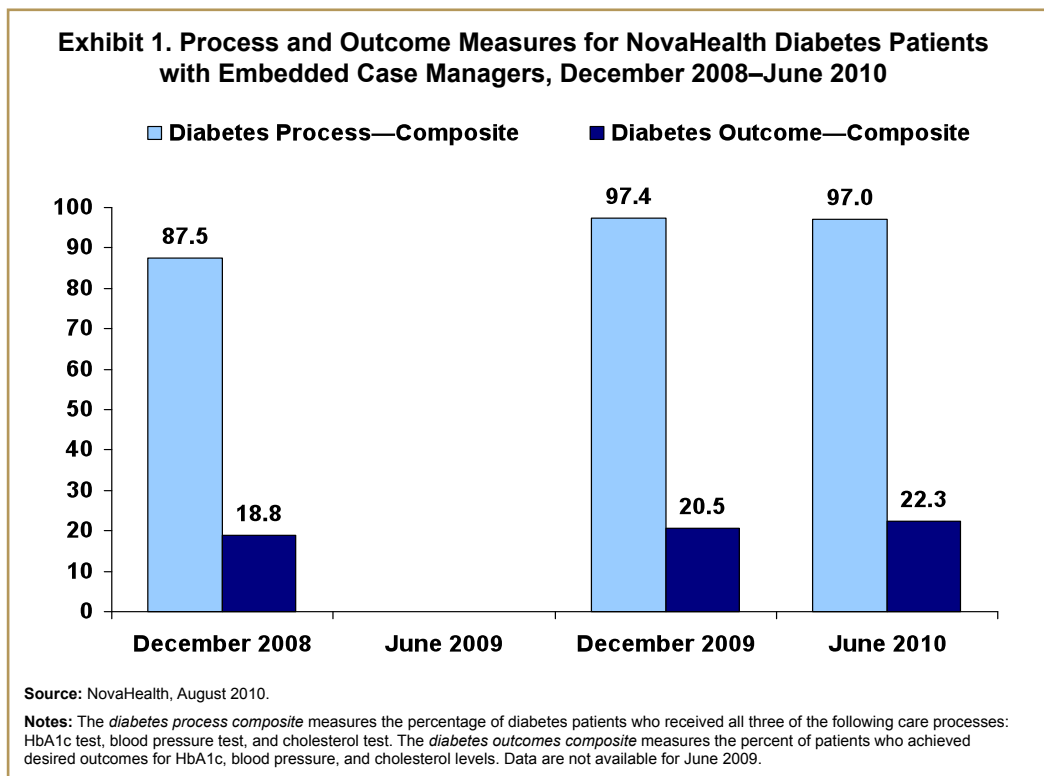
In addition to outreach and coaching, the case managers review their patients' claims data, pharmacy and laboratory reports, prescriptions, and other information. At

least once a month, the case managers run this information through Aetna's ActiveHealth “Care Engines,” clinical decision support software that identifies actionable gaps in care on three levels: level one gaps are urgent and serious, such as a potentially lethal drug interaction; level two gaps are serious but not necessarily urgent, such as a diabetes patient whose HbA1c levels are not at desired levels; and level three gaps are routine, such as a 70-year-old woman who has never had a bone density test. Case managers then follow up, as appropriate. They also receive alerts every time one of their physician group's patients is hospitalized. The case manager reaches out to offer discharge planning assistance, and may also notify the physician about the admission.

Claffey, NovaHealth's medical director, chose to participate in this pilot because he was “intrigued by the idea of panel management and having the ability to fundamentally affect the care to this population.” He meets each week with the case managers to review the data, answer questions, and discuss improvement projects. Like physicians in other participating practices, he also meets monthly with Aetna's medical directors to discuss how well the program is working and explore ways to strengthen it.

Having the support of the case managers has led some of the practices to develop targeted improvement programs. A medical group in Pennsylvania asked case managers to help monitor anticoagulant outcomes by alerting them when one of their patients is discharged on an anticoagulant medication and then working with them to monitor the patients' progress, especially during the first 30 days after discharge. An Ohio group will be using telemonitoring tools—provided by Aetna and Intel—to keep track of heart failure patients. Patients will use the tools to monitor their blood pressure, pulse, oxygen saturation, and weight and send the information to their case manager, who will review the data and share findings with their physicians as necessary.

The NovaHealth group is piloting an “ideal practice model,” including holding office hours seven days a week and instituting a hospital discharge planning process, to try to improve the quality of care and increase patient and provider satisfaction. Aetna's case managers are working with them to implement the model and assess the effectiveness of the approach. The practice is also seeking to improve orthopedic follow-up care, including preventing falls.



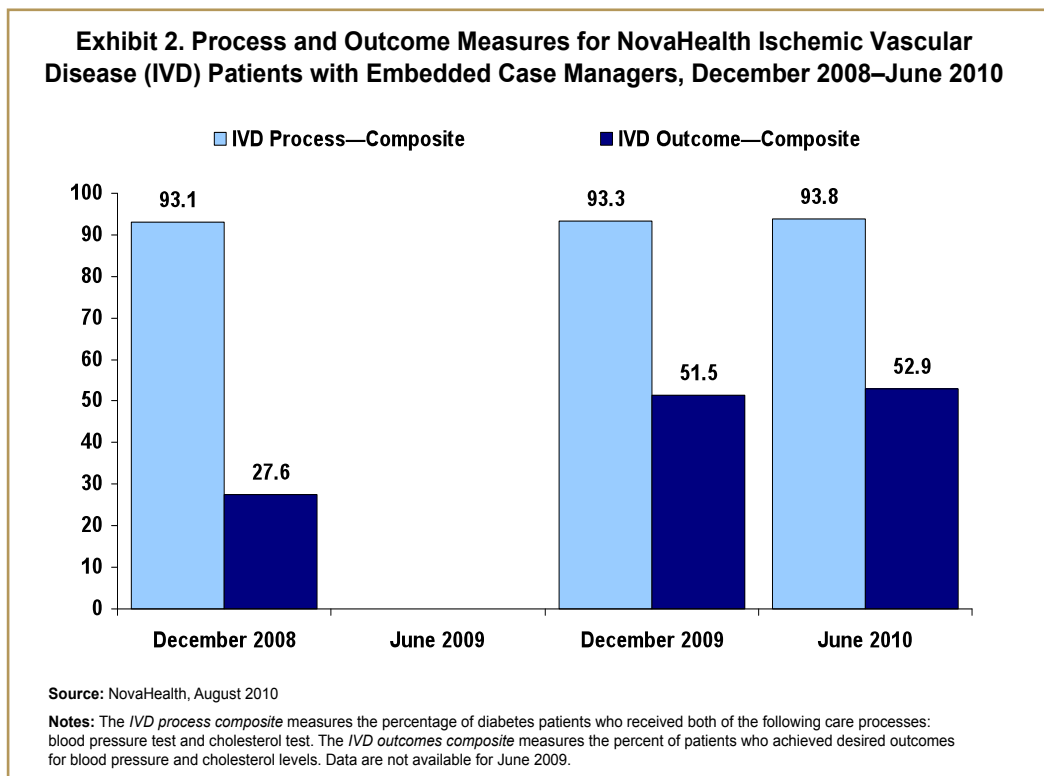
Results

The use of embedded case managers appears to have led to improvements in health care quality. Nearly all of the medical groups participating in the embedded care program with over 200 enrolled patients have met their performance targets. These include certain process measures that are designed to be achievable, such as whether patients have follow-up office visits within 30 days of hospital discharge and patients with certain chronic conditions have at least two office visits a year. “The idea is we want them to really happen,” Wade says. “And it’s amazing: it does take attention to these things to make sure people take the extra effort to ensure that they do—and then a lot of even better stuff can happen.” For example, a patient who is seen by his doctor just a day or two after hospital discharge may have his medications straightened out and, with a case manager’s help, continue to recover at home without complications.

Participating groups also track certain disease outcomes. For example, NovaHealth’s InterMed group practice, which works with an embedded case manager, has achieved improvements on measures of disease control for diabetes and ischemic vascular disease (Exhibits 1 and 2).

The program also has had an impact in terms of avoiding complications and thus reducing the need for hospitalization. In 2009, Aetna’s regular case management program—without embedded case managers—resulted in a 31 percent reduction in the number of acute-care days, exclusive of denials, compared with unmanaged Medicare. (These results are on a risk-adjusted basis.) Across all 20,000 participating Medicare Advantage members, the embedded case management program has produced an additional 12 percent reduction in acute-care days to date in 2010.

Participating physicians report that the program saves them time: case managers are able to perform certain tasks, such as linking patients to social services or ensuring they see specialists, that they and their office staff may not have time to do. Physicians also appreciate having greater certainty that their recommendations will be followed and receiving updates on their patients’ progress between office visits. For their part, case managers say they save time by not having to play “phone tag” with providers and by gaining direct knowledge of the social and clinical resources in the community.



Implications

Having case managers embedded at physicians' offices may increase their ability to effectively manage patient care, compared with typical telephone-based approaches. The improvements seem to come from case managers' enhanced ability to collaborate with physicians and their staff—born from regular, face-to-face contacts and trust that develops over time. Case managers also benefit from working in a data-rich environment—one in which they have easy access to physicians and their staff and can track performance on the agreed-upon quality measures. "If you see an inpatient on your rounds and write a set of orders, you can have a high level of confidence they will get done," says Krakauer. "If you see the same patient in your office and write some prescriptions, tell them to go get tests, refer them for certain consultations, and ask them to follow-up in a certain number of weeks, you have a relatively low level of confidence this will all get done." While it's not possible to re-create the controlled milieu of a hospital in the community, the close collaboration of case managers and providers makes it more likely that care plans will be followed.

While insurer-led improvement programs can foster collaborative relationships between health plans and their contracted physicians, financial incentives for

participation in this kind of program need to be sufficient to garner physicians' attention and make their investment of time worthwhile. That said, Krakauer believes that success is less contingent on the incentives and more a matter of aligning insurers' interests with those of physicians. The program has "changed the nature of Aetna's relationship with physicians," Krakauer says.

Claffey, medical director of NovaHealth, points to the synergy achieved through collaboration between providers and payers. "We on the provider side have trusting relationships with patients, and access to data that health plans don't have," he says. "On the other side, health plans have aggregate data about a panel of patients, and can help identify issues related to hospital readmissions, ED visits, see who is filling prescriptions and who's not."

This approach differs from many pay-for-performance programs in that Aetna has more "skin in the game" than payers typically do under such arrangements; it pays case managers' salaries as well as the provider incentives, and also deploys its own case management resources, such as predictive modeling and clinical decision support. And Aetna works actively to help practices meet and exceed the designated performance targets.

“I think if you just put P4P [pay-for-performance] on top of what physicians are already doing, without making an effort to change the way things are done, you won't have improved much,” says Wade. “We try to have a commitment to improve care together—based on the evidence, based on what's been working in other practices.”

Claffey of NovaHealth agrees. “This is a lot different than typical pay-for-performance. As this goes along, each party develops confidence that the other is in it for the right reasons—both are working to improve health care delivery, make patients healthier, in a manner that does bring some value to the system.”

While this model of case management could be expanded beyond Medicare Advantage patients, there are significant challenges to doing so. Medicare Advantage plans receive additional federal funds, compared with fee-for-service Medicare, to provide additional benefits to enrollees, and thus have the financial resources to invest in full-time case management programs. Generally, case management programs are more easily implemented

among Medicare patients, compared with commercially insured patients, because many primary care practices have sufficient numbers of Medicare patients with complex care needs to make the investment worthwhile from a clinical and a financial standpoint.

Most physicians still practice on their own or in small group practices of fewer than 10 physicians. To expand the embedded case management program among such practices, Aetna is looking to develop contracts with “PODs,” or pools of doctors willing to take on collective responsibility for a group of patients and work with case managers to improve their care. In this case, the quality incentives would be shared among the group.

Aetna's attempt to form networks of physicians is a step toward the accountable care organizations that are being promoted under the Affordable Care Act.⁵ The insurer's efforts will be an important test to see how well independent physicians can collaborate with each other as well as with payers to improve patient care—with case managers as the glue that helps hold them together.

For Further Information

Contact Randall Krakauer, M.D., at krakauermdr@aetna.com or Marcia Wade, M.D., at wademl@aetna.com.

Notes

- ¹ N. C. Aizenman, “Insurers Tout Disease Management Programs, But Critics Are Wary,” *Washington Post*, July 20, 2010.
- ² S. M. Shortell, R. Gillies, J. Siddique et al., “Improving Chronic Illness Care: A Longitudinal Cohort Analysis of Large Physician Organizations,” *Medical Care*, September 2009 47(9): 932–939.
- ³ Randall Krakauer personal conversation, based on internal Aetna study.
- ⁴ Aetna has also worked with Mary Naylor, Ph.D., R.N., a professor of gerontology at the University of Pennsylvania School of Nursing, to implement Transitional Care Management for its Medicare Advantage members. This program, pioneered by Naylor and developed over a number of years, uses advanced practice nurses to provide comprehensive in-hospital planning and follow-up care, including home visits, for chronically ill older adults. It has been shown to improve health outcomes and reduce costs. M. D. Naylor, P. Hollander Feldman, S. Keating et al., *Translating Research into Practice: Transitional Care for Older Adults*, *Journal of Evaluation in Clinical Practice*, December 2009 15(6): 1164–70.
- ⁵ In 2012, Medicare will launch a shared savings program to reward primary care physicians, specialists, and hospitals that form accountable care organizations and collaborate in the redesign of care processes, improve care coordination, and promote high-quality, cost-efficient care.

News Briefs

Final Rule for Meaningful Use Issued; Critics Point to Problems

Last month, the Centers for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator for Health Information Technology issued the final rule outlining what constitutes “meaningful use” of electronic health records. According to the rule, physician practices and hospitals that show they make meaningful use of electronic health records will qualify for incentive payments from Medicare and Medicaid beginning in 2011; by 2015, providers who do not demonstrate such meaningful use will be subject to reduced payments under Medicare.

The American Medical Association (AMA) issued a [statement](#) July 21 saying that, while the final rule is an improvement from the proposed rule issued during the comment period, several problems remain. According to the AMA, these problems include:

- too little time for providers to comply with the requirements before the program’s launch in January 2011;
- too many measures—20—of meaningful use; and
- a dearth of available electronic health record systems that meet all of the requirements.

While the AMA and other provider groups have argued that meaningful use regulations move too quickly or ask too much of providers, the Leapfrog Group released an August 4 [statement](#) saying that the rule did not go far enough.

Citing safety concerns, Leapfrog Group CEO Leah Binder argues that the government should require providers to demonstrate that their information technology, including computerized physician order entry (CPOE) systems, functions as intended. A [recent report](#) from the organization found that in simulation tests of the CPOE systems in 214 hospitals, only half of potential medication errors were detected by the technology. Repeated tests six months later found improved performance, showing that ongoing monitoring and adjustment are critical to improving the reliability and effectiveness of health information technology.

Survey: Hospital Infections Caused by Lack of Resources, Ignorance

Catheter-related bloodstream infections remain one of the most serious and deadly complications of care because hospitals fail to commit sufficient resources and attention to eradicating them, according to the Association for Professionals in Infection Control and Epidemiology. Released last month, a [survey](#) by the association sought to uncover the reasons hospitals fail to adopt proven practices for preventing infections; responses were collected from 2,075 health care professionals, most of whom were infection control nurses employed by hospitals. Half of respondents said that bloodstream infections were a persistent problem in their hospitals and identified lack of time and resources, as well as lack of commitment by hospital leaders, as barriers to infection prevention.

More than half of respondents said that time spent on tracking and reporting infection rates—often through cumbersome paper-based systems—meant that they had little time to devote to prevention. And seven of 10 said they did not have enough time to train other hospital workers on ways to avoid infections. One of five said their hospital administrators were not willing to spend the money needed to aggressively fight infections.

Experts [argue](#) that the most powerful method for reducing preventable injuries has been to require physicians to provide data on their own performance and then provide them with their risk-adjusted complication rates and those of their peers. To further such efforts, data on the incidence of central line-associated bloodstream infections at some 900 hospitals across the country are now available on The Commonwealth Fund’s performance benchmarking Web site, [WhyNotTheBest.org](#).

Study: What Happens When Doctors Share Their Notes with Patients?

The Wall Street Journal, *New York Times*, Associated Press, and other news sources reported recently on a growing movement to give patients access to their physicians’ notes. While patients have a legal right to read their doctors’ notes, few do so because they are unaware of their right to see them or find it difficult to obtain the records.

An ongoing [study](#) described in the current issue of the *Annals of Internal Medicine* finds that inviting patients to review the notes—typically on electronic medical records—improves patients’ understanding of their health and results in greater compliance with care regimens. Researchers caution that sharing the notes raises the potential that patients will misunderstand medical terminology or misinterpret medial information.

The OpenNotes study, funded by the Robert Wood Johnson Foundation, involves 25,000 patients and their primary care physicians at Beth Israel Deaconess Medical Center of Boston, Geisinger Health System in Danville, Pa., and Harborview Medical Center in Seattle.

Publications of Note

Process Improvement Linked to Improved Outcomes

A study designed to determine whether hospital performance improved after the Hospital Quality Alliance began publicly reporting process indicators through the Web site Hospital Compare found that improvements were associated with better patient outcomes. For acute myocardial infarction, improvements were associated with declines in mortality rates, lengths of stay, and re-admission rates. More specifically, a 10-point increase in performance was associated with declines in mortality rates of 0.6 percentage points; lengths of stay, 0.19 days; and readmission rates, 0.5 percentage points. Changes in outcomes for heart failure and pneumonia were less consistent and smaller, when present. R. M. Werner and E. T. Bradlow, [Public Reporting on Hospital Process Improvements Is Linked to Better Patient Outcomes](#), *Health Affairs*, July 2010 29(7):1319–24.

In this commentary, the authors suggest that the Center for Medicare and Medicaid Innovation, a newly created office within the Centers for Medicare and Medicaid Services, encourage the development of accountable care organizations (ACOs) by communicating their benefits to providers and creating a system for learning from previous experiments with ACOs. To address the different states of readiness to form ACOs among physician organizations, the authors also recommend that the center create a tiered system of payment models so that physicians can choose one that best fits their needs and circumstances. In the first tier, the ACO might bear little financial risk but would be eligible to receive shared

savings and bonuses if it meets quality benchmarks and reduces per-beneficiary spending below a certain target. In the second tier, the ACO might be paid through partial capitation and selected bundled payments. It might be eligible to receive a greater proportion of savings if it achieves spending targets below a specified target, but the ACO would also be at risk for spending above the target. Groups in the second tier would be required to report more comprehensive data on performance measures. Finally, in the third tier, ACOs would be reimbursed through full capitation or extensive partial capitation and bundled payments. Qualifying criteria for the third tier might include public reporting of comprehensive data on performance measures; these ACOs might also be required to meet more stringent requirements for financial reporting and cash reserves. S. M. Shortell, L. P. Casalino, and E. S. Fisher, [How the Center for Medicare and Medicaid Innovation Should Test Accountable Care Organizations](#), *Health Affairs*, July 2010 29(7):1293–8.

A study of 35,423 patients with hypertension, diabetes, or both found the use of secure patient to physician e-mail was associated with more effective care, as measured by the Healthcare Effectiveness Data and Information Set (HEDIS). The study of patients of Kaiser Permanente, an integrated delivery system, found the proportion of patients whose HEDIS measures improved ranged from 4 percent to 11.1 percent. Secure patient–physician e-mail was associated with an improvement in performance on blood glucose screening and control, cholesterol screening and control, retinopathy screening, and nephropathy screening of 2.4 to 6.5 percent. It was also associated with improved performance on blood pressure control among patients with diabetes and with blood pressure control among patients with hypertension

alone. The authors suggest a randomized controlled study is necessary to confirm the association. Y. Y. Zhou, M. H. Kanter, J. J. Wang et al., [Improved Quality at Kaiser Permanente Through E-Mail Between Physicians and Patients](#), *Health Affairs*, July 2010 29(7):1370–5.

In a commentary, the national coordinator for health information technology at the Department of Health and Human Services and the principal deputy administrator of the Centers for Medicare and Medicaid Services outlined the criteria hospitals and physicians must meet to qualify for incentive payments under the Health Information Technology for Economic and Clinical Health Act (HITECH). The authors explained how the regulation had been revised to address concerns that few providers could meet the qualifications for incentive payments. The revised regulation reduces the number of obligations physicians and hospitals must meet by requiring them to fulfill a set of 15 core obligations and select from a menu of other important activities to meet five other obligations. “The meaningful use rule strikes a balance between acknowledging the urgency of adopting EHRs (electronic health records) to improve our health system and recognizing the challenges that adoption will pose to health care providers. The regulation must be both ambitious and achievable,” the authors said. D. Blumenthal and M. Tavenner, [The Meaningful Use Regulation for Electronic Medical Records](#), *New England Journal of Medicine*, published online July 13, 2010.

To assess the impact of a standalone e-prescribing system on the rates and types of prescribing errors in community-based office practices, researchers analyzed the records of 15 providers who adopted an e-prescribing system and compared them with those of 15 providers using paper-based systems. The physicians were located in the rural and suburban Hudson Valley region of New York. The researchers found that error rates among e-prescribers decreased from 42.5 per 100 prescriptions to 6.6 per 100 one year after adoption. For non-adopters, the error rates remained high, at 37.3 per 100 at baseline and 38.4 per 100 at one year. The authors concluded that prescribing errors may occur much more frequently in community-based practices than previously reported. R. Kaushal, L. M. Kern, Y. Barrón et al., [Electronic Prescribing Improves Medication Safety in Community-Based Office Practices](#), *Journal of General Internal Medicine*, June 2010 25(6):530–6.

A randomized trial designed to evaluate the effectiveness of using group visits to treat uncontrolled blood glucose and blood pressure in patients with both diabetes and hypertension found patients who attended the group visits at two Veterans Affairs Medical Centers had better blood pressure control at six months than those in the usual care group and the results were sustained at one year. Group visits did not improve blood glucose control in the same patients, compared with the usual care group. The group visits included seven to eight patients and a care team that consisted of a primary care general internist, a pharmacist, and a nurse or other certified diabetes educator. Each session included structured group interactions moderated by the educator. The pharmacist and physician adjusted medication to manage each patient’s blood glucose level and blood pressure. The annual cost of the program, which was \$460 per patient, might be offset by reductions in emergency department and primary care visits, the researchers noted. D. Edelman, S. K. Fredrickson, S. D. Melnyk et al., [Medical Clinics Versus Usual Care for Patients with Both Diabetes and Hypertension: A Randomized Trial](#), *Annals of Internal Medicine*, June 2010 152(11): 689–96.

More intensive use of Medicare services by fee-for-service and managed care beneficiaries is associated with worse or no better care experiences, according to a study that linked resource use intensity in 306 markets with data from the 2003 Consumer Assessment of Healthcare Providers and Systems surveys. For all beneficiaries across the 306 markets, problems with access to care and getting care when needed were more frequent in high-intensity areas than in low-intensity areas. Despite this, beneficiaries in high-intensity areas rated their personal physicians more highly than their counterparts in low-intensity markets. J. N. Mittler, B. E. Landon, E. S. Fisher et al., [Market Variations in Intensity of Medicare Service Use and Beneficiary Experiences with Care](#), *Health Services Research*, June 2010 45(3): 647–9.

A study that examined whether adherence to Surgical Care Improvement Project (SCIP) measures was associated with postoperative infection rates found adherence on individual SCIP measures—the only measures for which performance is publicly reported—was not associated with a significantly lower probability of infection. However, adherence measured through an “all-or-none”

composite infection-prevention score was associated with a lower probability of developing a postoperative infection. This suggests improved methods for identifying quality-of-care are necessary. Further, the lack of an association between individual process-of-care measures and clinical outcomes suggests reimbursement schemes based on these items would be ineffective. The researchers used Premier Inc.'s Perspective Database to study discharges between July 1, 2006 and March 31, 2008, in 398 hospitals. J. J. Stulberg, C. P. Delaney, D. V. Neuhauser et al., [Adherence to Surgical Care Improvement Project Measures and the Association with Postoperative Infections](#), *Journal of the American Medical Association*, June 2010 303(24):2479–85.

In this commentary, the author points out how current methods of assessing hospital performance lead to an incomplete picture of hospital outcomes and resource use and distract from population-based approaches needed to assess community performance. The Dartmouth Atlas hospital-specific end-of-life measures calculate expenditures for decedents and exclude data on the care of survivors. Alternate methods that follow index admissions and measure outcomes for patient who lived or died miss patients treated outside the hospital. By contrast, community-level or population-based measures require consideration of all patients with a specific disease—those who lived or died and those who received treatment in a hospital or did not. The author suggests investment in health information technology and the use of all-payer databases may help capture this missing information. M. D. Huesch, [Payment Policy Based on Measurement of Health Care Spending and Outcomes](#), *Journal of the American Medical Association*, June 2010 303(23):2405–6.

Before developing cost profiles of physicians, health plans must first determine which physician is responsible for the care a patient received. There are many rules for attributing care to physicians. To determine whether these attribution rules change the classification of physicians as high-, average-, or low-cost providers, researchers applied 12 different attribution rules to aggregated claims submitted to four different commercial health plans in Massachusetts. They found that compared with the most commonly used rule, 17 percent to 61 percent of physicians would be assigned to a different category under an alternate attribution rules. In practical terms,

this means that two health plans in the same region would frequently assign a physician to different cost categories even though the physician's care pattern did not change. Because different attribution rules relay information important to physicians, patients, and payers, among others, the researchers suggest health plans create cost profiles that are transparent in their methodology. This will enable users to determine whether the score is relevant for their purposes. A. Mehrotra, J. L. Adams, J. W. Thomas et al., [The Effect of Different Attribution Rules on Individual Physician Cost Profiles](#), *Annals of Internal Medicine*, May 2010 152(10): 649–54.

A study of communication between physicians and nurses caring for hospitalized patients during a one-month period revealed significant communication problems. Nurses correctly identified patients' physicians 71 percent of the time and reported communicating with them 50 percent of the time. Physicians correctly identified the patients' nurses 36 percent of the time and reported communicating with them 62 percent of the time. Physicians and nurses showed no agreement on aspects of the plan of care ranging from 11 percent for planned procedures to 42 percent for medication changes. K. J. O'Leary, J. A. Thompson, M. P. Landler et al., [Patterns of Nurse–Physician Communication and Agreement on the Plan of Care](#), *Quality and Safety in Health Care*, April 2010 19(3):195–9.

A study designed to determine the separate impact of health plans and physician groups on quality measures found variation across provider organizations explains much of the variation in Healthcare Effectiveness Data and Information Set (HEDIS) scores. However, the researchers, who relied on data from six health plans and 159 provider organizations in California, found significant differences across health plans in HEDIS rates that were not significantly changed when they controlled for the provider organization caring for the patient. The results suggest that health plans can influence quality independent of physician groups and that the collection of plan-level data is warranted. L. C. Baker and D. S. P. Hopkins, [The Contribution of Health Plans and Provider Organizations to Variations in Measured Plan Quality](#), *International Journal for Quality in Health Care*, March 2010 22(3):210–8.

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