

Sweat, tears and streamlining

Electronic health records (EHRs) improve quality, but first, care processes must be redesigned.

ROUTINE SCREENING can reduce the number of people who die of colorectal cancer by at least 60 percent, according to the Centers for Disease Control and Prevention. But research shows not all colonoscopies are equal. Even among experienced gastroenterologists, some practitioners can be 10 times better than others at finding adenomas, the polyps that can turn into cancer, according to a 2006 study in the *New England Journal of Medicine*.

Unlike most medical groups, Minnesota Gastroenterology doesn't wonder how good its gastroenterologists are. It has data from its electronic health record (EHR) system to prove they're doing a good job. For the past three years, the group,

which includes 53 physicians at six clinics and 12 hospitals in the metro area, has beat national benchmarks for detecting precancerous polyps, examining to the end of the colon, and scheduling

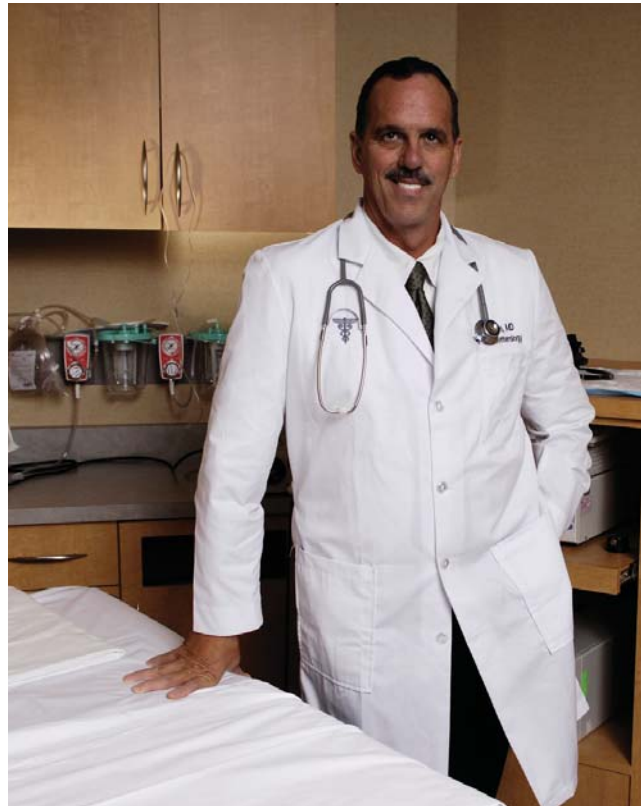


Photo by Steve Wewerka

John Allen, M.D., of Minnesota Gastroenterology, credits electronic health records with helping his practice beat performance benchmarks.

follow-up exams.

“We have three years of data for indicators (see Outcomes, p. 3) and procedures that virtually no one else has,” says John Allen, M.D., medical director of Minnesota Gastroenterology.

The national standards say that gastroenterologists

What's in an EHR?

A complete electronic health system needs these four functions:

- Electronic prescription ordering
- Test ordering
- Test results
- Physician clinical notes

Source: “Electronic Medical Record Use by Office-Based Physicians: United States, 2005”

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Owner and Publisher
Minnesota Medical Association

Editor
Scott D. Smith

Manager, Quality Improvement
Rebecca Schierman

Graphic Designers
Joanna Kapke

Advisory Committee
Thomas J. Arneson, M.D.
Joseph L. Campanelli, M.D.
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Peter J. Dehnel, M.D.
Kurtis M. Hoppe, M.D.
David D. Luehr, M.D.
Prathibha Varkey, M.D.

**To Submit an Article,
Idea or Comment**
Contact Scott Smith at
ssmith@mnmed.org or 612/362-3726

MMA Address
1300 Godward Street, Ste 2500
Minneapolis, MN 55413
Phone: 612/378-1875 or
800/DIAL MMA (342-5662)
Fax: 612/378-3875
E-mail: mma@mnmed.org
Web site: www.MMAonline.net

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▶▶▶ should, on average, find precancerous polyps in 25 percent of men and 15 percent of women age 50 or older. Detection rates also improve if the physician spends a minimum of six minutes withdrawing the endoscope, he says.

Allen's group has beat those benchmarks for the past three years, but Allen looked at the data of individual physicians and found that only about half of the doctors spending less than six minutes met the expected detection rate, whereas two-thirds of those who took longer met the requirement and found more adenomas.

"This [knowledge] comes directly from the electronic medical record (EMR) and because we have pathology results within our EMR in a searchable format. This allows me as medical director to monitor quality standards that are nationally recognized as being important," Allen says.

Getting started

Minnesota Gastroenterology ventured into an electronic system in 2002 with a NextGen program initially used for billing and administrative matters. The practice then customized its system so it could generate reports about frequency and outcomes of endoscopic procedures, first codifying colonoscopies, then procedures related to inflammatory bowel diseases (Crohn's and ulcerative colitis) and liver diseases.

Tracking individual doctors

The group also tracks how its individual physicians are doing and has used the data to help its physicians improve their withdrawal times and detection rates.

The process of improving withdrawal times and polyp detection rates has been a slow, multi-year process. The group

Surprises, pitfalls, and problems

THE BIGGEST BARRIERS to implementing EHRs are concerns about data input by providers, loss of productivity during the transition, and a lack of capital resources.

Many clinics are concerned about the expense. "The cost of this has just been enormous," says Minnesota Gastroenterology's John Allen, M.D. "I ask our CFO every so often [about cost], and he won't tell me. He's afraid he's going to scare me."

The real cost is the huge amount of work it takes to get a system up and running. "It means endless hours, days and weeks of planning meetings so that the work of patient care and documentation does not grind to a halt during the conversion," Allen says.

Cost depends on several variables, but Stratis Health estimates average EHR costs at \$25,000 to \$50,000 per provider for implementation; maintenance costs another 15 percent to 20 percent annually.

The good news is some practices are seeing a financial return on their investment. Winona Family Medicine has cut its transcription costs by about \$25,000 per year per doctor after making an initial investment in hardware of about \$45,500 in 2000, according to William Davis, M.D., a family physician at the clinic.

Other drawbacks sources cite include the long learning curve and a staff's tendency to cling to old ways that lead to a hybrid paper-electronic system.

Tom Arneson, M.D., medical director at the Chronic Disease Research Group in Minneapolis and former medical director at Stratis, says physicians can avoid problems by being clear about their goals and the capabilities of the product they are buying.

"If you start thinking consciously that one of our goals is improving quality, then you have to start thinking about how will it do that," Arneson says. ▀

began by confidentially showing group members their scores. In 2006, the group shared everyone's data at an all-physicians meeting, so colleagues could see how they compared to each other. The practice has provided educational materials and emphasized that all physicians need to meet national standards.

In 2008, the practice will offer financial rewards for those who meet the quality standard.

Allen says the effort has not changed the practice's overall adenomas find rates, which have been above benchmarks for the last three years, but it has helped those physicians with lower scores improve.

Faster test results

The EHR has also improved the practice's ability to track test results and follow up with patients.

With 120,000 patient visits annually, the practice used to have difficulty tracking and confirming the completion of tests. Today, those problems have been virtually eliminated, Allen says.

Physicians get test results within 24 to 48 hours as opposed to more than a week. The electronic system allows Allen to monitor those responses and make sure lab and X-ray results are sent to patients and referring physicians.

"We have worked with our pathology colleagues to streamline the process of handling biopsies that come from procedures performed in our ambulatory endoscopy centers. Now, when we send a biopsy from one of our procedures, I'll be able to notify a patient of their results often the next day," he says. The practice also received a 1.5 percent bonus from Medicare for reporting its data to the CMS Physician Quality Reporting Initiative. None of this would have been possible, Allen says, using paper records.

Large system improves chronic disease care

Minnesota Gastroenterology is an example of how a specialty provider has tailored its EHR to meet its needs. HealthPartners is a large organization that has used EHRs to improve chronic disease care in its clinics.

HealthPartners installed EHR software and computers in all of its clinics in 2004 through 2007. Today, its EHRs are fully implemented in its primary care and behavioral health clinics and at Regions Hospital, says Beth Averbeck, M.D., associate medical director of care improvement with HealthPartners Medical Group and Clinics.

From early 2005 to the end of 2006, >>

A tool, not a solution

MINNESOTA PHYSICIANS say there's a common misconception among public policy makers that EHRs alone will improve health care quality.

Harvard researcher, Jeffrey A. Linder, M.D., M.P.H., found that physician offices that keep paper records deliver about the same quality of care as those who use EHRs, according to results of a study published in the July 9, 2007, *Archives of Internal Medicine*.

The study, based on examination of 50,000 patient records collected in 2003 and 2004 from 2,500 physician offices, found little statistically significant difference between clinics with or without EHRs in 14 of 17 categories measured. ▴

(Learn more on p. 7)

MN Gastroenterology's Colonoscopy Outcomes: 2004-2006

	National Benchmark	MNGI Average Per Physician		
		2004	2005	2006
Average number of colonoscopies by MD/year	>200	685	801	806
Exam complete to end of colon	90% of all screenings 95% of screening exams	97%	97%	98%
Precancerous polyp find rate				
Males >age 50	25%	28%	32%	26%
Females >age 50	15%	18%	21%	17%
Next exam scheduled per national guidelines	60%	N/A	95%	95%

Source: Minnesota Gastroenterology, PA



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EHRs and a simultaneous clinic redesign process contributed to these successes in HealthPartners' ambulatory clinics:

- 11 percent more women received mammograms,
- 26 percent more patients with depression were screened with an assessment tool,
- An increased percentage of patients with diabetes met standards for treatment, and
- A higher percentage of patients were screened for colorectal cancer.

The appearance of HealthPartners' EHR screen is similar in outpatient and inpatient settings, and allows care team members to know at a glance if patients are up to date on recommended labs or other services, particularly those who need treatment for chronic diseases.

The EHR also alerts physicians to medication interactions and allergies and provides easy access to several years of patient data. Also available are notes from other physicians and decision-support information.

The system helps provide patients and physicians the information they need during the exam, since the placement of the computers allows patients and physicians to view the medical record simultaneously, Averbeck notes.

Standardizing for success

Averbeck says early pilot projects didn't result in significant improvements in terms of outcomes.

EHR Tip:

- ▶▶ Streamline your paper system before going electronic.

For that to happen, HealthPartners had to redesign, standardize, and streamline some of its processes to make sure they complied with evidence-based guide-

lines from the Institute for Clinical Systems Improvement and other organizations, she says.

Others physicians have also found that EHRs aren't a silver bullet improving quality. Instead, they need to be coupled with evidence-based best practices and improved processes, sources say.

Minnesota Gastroenterology found that paper systems need to be simplified before the EHR could improve practice.

"There's a well-known fundamental philosophy that if you take a dysfunctional paper system, you'll end up with a dysfunctional, chaotic electronic system," Allen says. "We looked at our paper system and streamlined it. I think that's absolutely critical." ▀

By Andrew Tellijohn

MMA Quality Review Correspondent

Let's talk by 2015

Minnesota sets ambitious goal for creating a statewide record system.

MINNESOTA'S PUSH toward achieving interoperability of electronic medical record systems has been slow and, at times, tedious.

But the effort to connect hospital and clinic health records across the state leaped forward this September with the formation of the Minnesota Health Information Exchange, a nonprofit with financing from some of the state's largest providers and health insurers and the Minnesota Department of Human Services. The group has formed a nonprofit that is committed to building a network that will connect electronic health records.

Given that the exchange has the support of the state's largest health insurers and Gov. Pawlenty, it is likely to be part of every Minnesota doctor's future. The state Legislature has required all providers to have interoperable electronic health records in place by 2015, and the smart money is on the exchange as the vehicle for making that happen.

"The partners involved represent the majority of patients, so it will clearly be the primary infrastructure for change," says Brian Osberg, assistant commissioner of health care for the Minnesota Department of Human Services.

What is interoperability?

In practical terms, interoperability means that when a resident of Minneapolis gets sick in Brainerd, the physician up north can access the patient's records. Some large systems can already share data internally. For example, doctors at Abbott Northwestern Hospital can access records at Allina clinics. Now the challenge is doing this across organizations.

Minnesota has largely taken a decentralized approach to meeting the challenge of creating a statewide health records system. More than 50 separate efforts are aiming to connect the silos of health information that reside within clinics, hospitals, and insurers. In addition, the Minnesota e-Health Initiative, a public-private partnership of health care leaders, has been meeting with the aim of accelerating the adoption of health information technology.

But now, the exchange, which is backed by HealthPartners, Medica, and Blue Cross Blue Shield of Minnesota—which cover

about 3 million Minnesotans—as well as several large hospitals and others, is expected to become the central player in the state's efforts.

As it moves forward, the exchange will build on current efforts and provider-created and controlled EHR systems, says Mike Ubl, director of e-health and IT strategy at Blue Cross.

“We will just supply the highway to support the interoperability. It will be an electronic highway that will not store data,” Ubl says.

How the exchange will work

An advantage of the exchange's proposed approach is that it will combine both provider and insurer data.

“We're trying to bring all of the data together in a patient-profile mechanism because health plans and providers all have different pieces of the big picture,” Ubl says.

The most apt analogy is that the system will work like a search engine that will delve into the electronic health records of insurers and providers to retrieve patient information.

The exchange will identify patients by name, address, and other pieces of information. It will search databases such as insurer claim histories, provider medical records, and laboratory files, then shuttle useful information to the point of care.

For example, physicians don't know when their prescriptions get filled, but insurers do from billing records, and the exchange could connect the dots by letting physicians know that a patient has filled a prescription.

Allina, HealthPartners go first

The goal is to have the exchange services available at HealthPartners and Allina Hospitals and Clinics in a pilot program for select facilities by the first quarter of 2008. It will start with medication records and will later include medical histories, lab results, and imaging diagnostics.

After extensive testing, the exchange's services will be available to other health care organizations.

Eventually, any provider in the state could voluntarily join the exchange and get the service, though how membership would be structured hasn't been determined.

At its most basic, the exchange will function as a web portal that can be viewed through a standard browser.

“If you're one or two doctors up in northern Minnesota, as long as you can get an Internet connection you could connect, and you would not even need an EHR to get going,” Ubl says.

He expects using it will be relatively affordable. “We expect small health care providers would pay a pretty nominal fee,” he says.

One challenge for providers, Ubl says, will be integrating exchange data with their existing EHRs. For example, in an integrated system, a doctor would see a prescription was filled

Minnesota Health Exchange

Founders

Allina Hospitals and Clinics, Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica, and the Minnesota Department of Human Services.

Supporters

UCare, Community Health Information Collaborative, Fairview Health Services, FirstPlan, HealthEast Care System, Hennepin County Medical Center, North Memorial Medical Center, Park Nicollet Health Services, and PreferredOne.

in his own system, as opposed to having to find that information in a separate exchange database.

“Part of the challenge is to implement this in a way that is within the workflow and technology providers are using today,” Ubl says.

Another challenge will be overcoming patient concerns about their information being accessible to any doctor in the state. Ubl says patients will have the right to share or not share information. The exchange will not access or store patient information. Patients will have complete control of their information and they will be able to approve or deny access to it at the point of care, Ubl says.

Privacy, security and cost

Barriers including cost, privacy issues, terminology between providers, and transfer protocols must be overcome for the exchange to work, sources say.

Organizations must learn to trust one another and then find a way to protect the security of highly sensitive data, says Bill Brand, deputy director of health informatics with the Minnesota Department of Health.

Another hurdle: how to pay for the system.

Convincing small practices and individual physicians that there is a business case for the investment involved in sharing such data is especially challenging, according to Stuart Speedie, Ph.D., professor of health informatics at the University of Minnesota and an advisor to the Minnesota e-Health Initiative's advisory committee.

Despite these challenges, Brand is convinced that the next eight years will deliver results. “We'll be able to have very meaningful interoperability by 2015.” ▀

By Andrew Tellijohn

MMA Quality Review Correspondent

NEWS

YOU CAN USE

Electronic reminders can improve preventive services



Issue: Improving vaccination rates and other preventive services.

Research says: Starting in 2001, researchers in the University of Oklahoma's department of family and preventive medicine developed a preventive care reminder system. It prompted nurses to ask questions about preventive care status. The system, which ran on computers and handheld devices, would then generate a customized list of recommended preventive services.

Researchers tested the effectiveness of the system by looking at the 549 records of adults with diabetes and 2- to 3-year-

old children at six primary care clinics before and after the system was implemented. Clinics that implemented the system saw improved rates of vaccinations for the children and dramatically improved rates of smoking-cessation counseling for the adults. The control group, for which nurses did not use the reminder system, did not see any improvement.

Fast fact: The electronic reminder system helped raise the rate of smoking-cessation counseling from 23 percent to 78 percent.

Into practice: Health information technology works most effectively when practice workflow is re-engineered so the computerized system is integrated into an improved process.

Source: Nagykaldi Z, Mold JW. The Role of Health Information Technology in the Translation of Research into Practice: An Oklahoma Physicians Resource/Research Network (OKPRN) Study. *Board Family Med.* 2007;20 (2):188-195.

Tips for using EHRs in exams



Start with the patient

Listen to patient concerns before opening the screen and reviewing notes.

Use moveable monitors

Letting the patient see the screen, whether it's on a tablet or on an arm that can be adjusted, improves the exam.

Explain what you're doing

Sitting silently as you operate the computer can make patients uncomfortable. Talk as you search for and enter data.

Point to the screen

Patients will need help finding the information on screen you're referring to.

Learn to type and look at patients

Obvious but important.

Source: EHRs in the Exam Room: Tips on Patient-Centered Care, March 2006, *Family Practice Management*

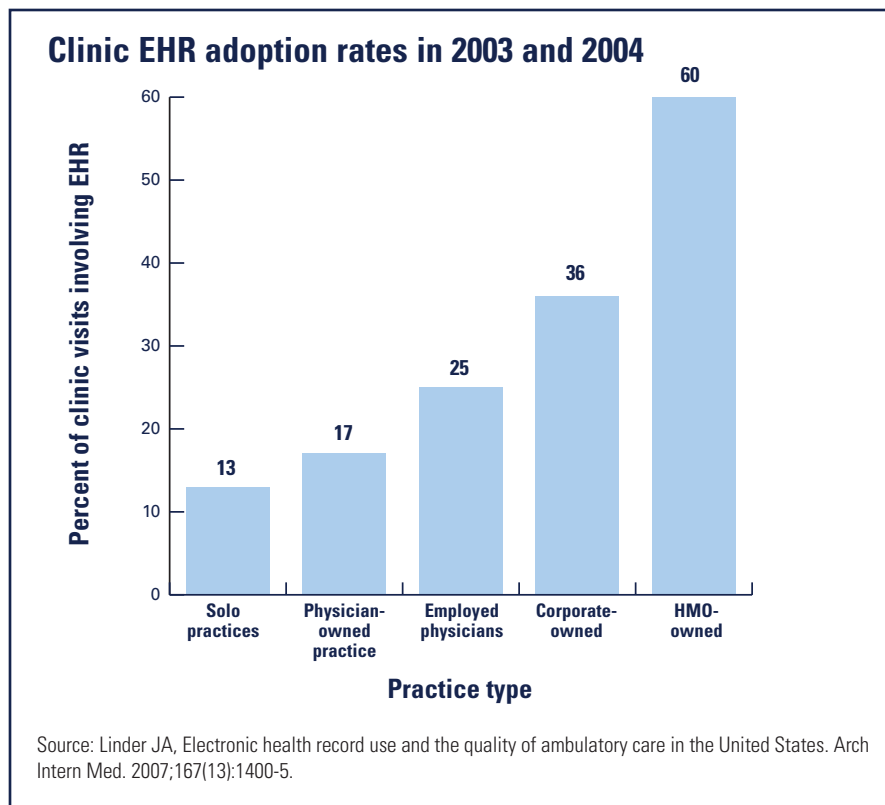
EHRs don't ensure quality

Issue: Electronic health records have been proposed as a solution for improving the quality of ambulatory care.

Research says: EHRs implemented in 2003 and 2004 were not associated with better care. Researchers from Harvard and Stanford universities retrospectively examined results from the 2004 National Ambulatory Medical Survey, which analyzed about 50,000 patient records. Their analysis found EHRs were associated with higher quality in two of 17 quality benchmarks: not prescribing benzodiazepine to a depressed patient and not doing urinalysis testing during general medical examinations. A second analysis of primary care and cardiovascular physicians found smoking-cessation counseling rates improved to 39 percent of visits with EHRs compared with 25 percent of visits without EHRs. One indicator, prescribing statins to patients with hyperlipidemia, was associated with worse quality.

Fast fact: Of the 1.8 billion ambulatory visits during the two-year period, EHRs were used in 16 percent of visits in 2003 and 20 percent in 2004.

Into practice: When selecting an EHR, consider whether it includes components for improving quality such as clinical decision support, quality reporting, and disease registry functions.



Helpful HIT websites

The **Agency for Healthcare Research and Quality's (AHRQ)** health information technology website identifies challenges to health IT adoption and use, solutions and best practices for making health IT work, and tools that will help hospitals and clinicians successfully incorporate new IT.

<http://healthit.ahrq.gov/>



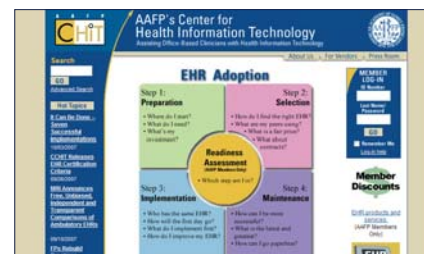
The **AMA Health Information Technology Center** website provides information on

- HIT policy, HIT stakeholders
- Resources to help practices get started
- Links to helpful tools and resources
- Information on how to prepare for the transition and maximize the use of HIT in practice.

<http://www.ama-assn.org/ama/pub/category/16195.html>

The **American Academy of Family Physicians Center for Health Information Technology** offers resources to help physicians transition to electronic records. Some sections are for members only.

<http://www.centerforhit.org/>



Q&A

Connecting clinics



Photo courtesy Margret Amatayakul

|| Margret Amatayakul

Drawing on her more than 35 years of experience advancing electronic health records, Margret Amatayakul has helped about 30 Minnesota clinics upgrade their health records systems. She founded and served as the first CEO of the Computer-based Patient Record Institute (CPRI) and now runs her own consulting firm based in Schaumburg, Ill. Here she shares her insights with the *MMA Quality Review*.

Q: What steps should a clinic take before purchasing a system?

A: There's a lot of planning, workflow and process analysis, correction of existing problems, preparation for standardized data collection, and adherence to protocol that have to go on before vendor selection. For example, identifying your goals and what systems will meet those goals is important. This often needs to be aided through education about what is possible with an EHR and what processes you perform today. Adopting standard processes, from standard scheduling rules to clinical practice guidelines, helps move a clinic to an EHR that supports quality improvement.

Q: What should a clinic consider when picking a vendor?

A: Come to grips with the fact that there is not a perfect system out there. A lot of your success is going to come down to how you implement an imperfect product. Do your due diligence. For example, you probably want to consider a product certified by the Certification Commission for Healthcare Information Technology (www.cchit.org), but you still need to ensure that all the functionality you want is included. In addition, you need to check out the vendor—is it financially stable, does it provide solid support, what sort of workflow support

does it provide?

In addition, you need to put the product through its paces with scenarios you develop for the vendor to demonstrate, check references, and visit similar clinics to get ideas not only about how the product works but how to implement it.

Q: How long does it take to implement an electronic medical record system?

A: Longer than most people expect. I'm beginning to think that two years is not unrealistic for many clinics, especially by the time you factor in the planning, vendor selection, and post-implementation adoption coaching. And for very large clinics it's going to take five to seven years.

Q: What should clinics know about budgeting for an electronic record system?

A: It's not just what you pay the vendor or the software and hardware costs. One clinic outside Minnesota bought a remotely hosted product. When the providers started using it, it slowed to a crawl. The clinic needed a T1 line, which needed a router. Neither the vendor nor the hosting company told them they needed extra bandwidth. Clinics also need to understand



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that skimping on important things is not the way to go. If you don't have good backup and full redundancy, for example, and the system goes down, you're going to have patient-care issues. You need comprehensive training and testing of the system. I would rather see people wait to buy until they can afford the full product.

Q: What about clinics that can only afford to do this piece-by-piece. Should they go forward anyway?

A: A lot of people are approaching this really slowly. Some start with a registry or e-prescribing or an instant medical history tool. That may be appropriate. But they also have to look at the cost/benefit. A registry requires staff for data entry. The good thing is it gives you some registry functionality and population data. By burdening your staff, you may add direct or indirect costs. To me, going piece-by-piece sort of extends the pain, and it leaves you with a hybrid environment.

Q: What's a common weakness of health record systems?

A: They're good at supporting one-on-one patient visits but not as good when it comes to aggregating data and reporting.

Q: What are some common mistakes clinics make?

A: A lot of people aren't willing to invest in the up-front planning or the change management required during implementation. Sometimes they buy a product that looks like it's easy to use but doesn't do as much as they'd like. The other thing is they don't understand their own needs. For example, if you are willing to adopt standard templates designed by the vendor, you can do well with a less expensive product. But if you have a multi-specialty clinic or want a lot of customization, you will have to pay for a more robust system.

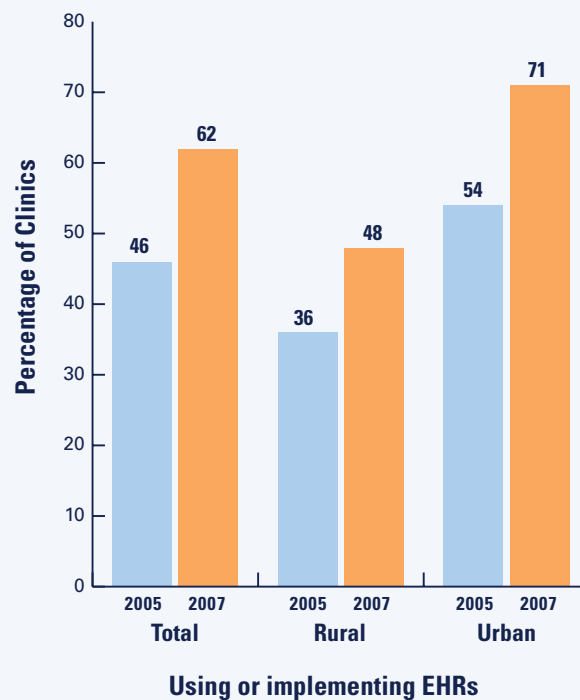
Q: Should clinics buy now or wait for more HIT standards to develop?

A: They should not wait. I have been working in this field for almost 40 years. Had we waited 10 years ago, 20 years ago, we wouldn't be where we are today. The vendors rely on the laws of supply and demand, so if people demand a product, they will supply it.

Q: How does the adoption rate in Minnesota compare with that in other states?

A: I really think Minnesota is pretty close to the top, if not at the top, in terms of EHR adoption. The 30 clinics that we've worked with represent close to 100 facilities. Many large providers have robust EHR systems, and there are a lot of clinics now that are looking at moving forward. ▴

Minnesota adult primary care clinics using or implementing EHRs



Source: Stratis Health 2007 EHR Survey based on a survey of 603 clinics.

MINNESOTA & NATIONAL ROUNDUP

MAPS introduces readable informed consent form



NINETY MILLION Americans have difficulty understanding and using health information, according to the Institute of Medicine's 2004 report "Health Literacy: A Prescription to End Confusion."

For these patients, many informed consent forms are just too difficult to understand.

To rectify this situation, the Minnesota Alliance for Patient Safety (MAPS) has developed an informed consent form written at a fourth-grade level that it hopes hospitals, clinics, and surgery centers throughout the state will adopt. The form meets standards set by the Centers for Medicare and Medicaid Services (CMS), the Joint Commission, and the Occupational Safety and Health Administration.

The form and an accompanying model policy guide for facilities are available at www.mnpatientsafety.org. ▀

Gov. Pawlenty requires e-prescribing by 2011

PHYSICIANS WHO TREAT state employees have until 2011 to make sure they can submit prescriptions to pharmacies electronically.

In June, Gov. Tim Pawlenty announced that the state could save about \$5 million by using a single vendor to manage its pharmacy benefits for state employees and requiring physicians who contract with state health plans to submit prescriptions electronically.

To ensure compliance, the state is threatening to withhold payments from doctors who fail to meet the 2011 deadline. By most estimates, fewer than 10 percent of the nation's physicians prescribe electronically. ▀

MMA evaluates P4P

IN MID-NOVEMBER, the MMA will mail to members its report on Minnesota's pay-for-performance programs.

The report is the first comprehensive listing of the state's programs. It also describes the measures used and evaluates whether they align with principles endorsed by the MMA. ▀



Willmar physician wins quality award

THE MMA AWARDED Burnell J. Mellema, M.D., a family physician and care improvement medical director for Affiliated Community Medical Centers (ACMC) in Willmar, its Physician Leadership in Quality Award in September.

Mellema heads ACMC's best practices committee and promotes measurement and reporting to his colleagues. He has devised methods for using electronic medical records for measuring quality and e-prescribing, and has promoted health literacy and cultural



David Luehr, M.D., chair of the MMA's Quality Committee, congratulates Burnell Mellema, M.D., for his work improving the quality of care at his clinic.

competency to meet the needs of the patient population in his community. ▀

Medicare update

Medicare says it won't pay for errors

In August, it was widely reported that the Centers for Medicare and Medicaid Services had informed hospitals that it planned to stop paying the costs associated with eight preventable errors.

For example, the government will no longer pay for treatment of certain infections that patients pick up in the hospital, nor will it pay for retrieval of objects left behind during surgeries or transfusion when a patient is given the wrong blood type.

The decision isn't expected to have much effect on

Minnesota's hospitals, which have rarely, if ever, billed for their mistakes, according to the Minnesota Hospital Association.

The Medicare policy will take effect in October 2008. ▀



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The eight mistakes

1. Patient falls
2. Pressure ulcers
3. Urinary tract infections
4. Vascular-catheter-associated infections
5. Mediastinitis
6. Air embolisms
7. Removal of objects left in the body during surgery
8. Injury caused by use of incompatible blood products

Medicare tests personal health records

The Centers for Medicare and Medicaid Services is testing how Medicare beneficiaries use an online personal health record to track their health care services, medications, and medical conditions. An 18-month pilot that has not yet started will enable certain beneficiaries to access and use a personal health record provided through participating health plans. The health records will be available through www.mymedicare.gov. ▀

Tech giants seek to be record keepers

GOOGLE AND MICROSOFT are trying to get into the health records business. In October, Microsoft launched HealthVault.com, a free website where patients can store their medical records and share them with physicians or family members. Patients can have doctors fax their records directly to HealthVault.

Google is also developing a product that might combine a personalized health record with Internet search capabilities, according to an article in the August 14, 2007, *New York Times*.

Challenges for the technology giants will include dealing with patient privacy concerns and finding a way to gain access to the medical and treatment records from doctors, hospitals, insurers and laboratories so they can be incorporated in an individual's personal records, the *New York Times* article said. ▀

Grants for rural providers

DURING THE 2007 LEGISLATIVE SESSION, lawmakers set aside \$7 million to help small rural providers implement EHRs. The Minnesota Department of Health, which awarded the grants, received 35 proposals requesting more than \$11 million before the program's September application deadline. "We were pleased to the point of being surprised," says Bill Brand, deputy director of health informatics with the Department of Health. "It gives an indication of the need and the interest."

In other grant news, The Northern Minnesota Health Care Network, a consortium of rural providers, received a \$750,000 federal grant from the Health Resources and Services Administration to use for electronically linking multiple health centers. ▀

Small clinics go digital

Practices of only a few doctors find going paperless gives them an edge.

JOHN WUST, M.D., defied the conventional wisdom on electronic health records (EHRs), which says that small providers can't compete on IT.

When he built his practice, Northern Ob/Gyn Associates in Coon Rapids, Wust decided to make electronic health records (EHRs) one of his most important partners.

Wust designed his practice, including the spaces where physicians work and examine patients, around an Internet-based system that includes medical records, interfaces with the lab, and offers back-office support for billing payers and invoicing patients.

Wust believed that technology was one way a small practice could go head-to-head with larger clinics.

He says his system from the vendor NextGen helps him focus on preventative care because all the patient's information is at his fingertips. He likes that he can customize it to meet certain preventive care goals. For example, the system includes alerts that a patient might need a chlamydia screening based on criteria recommended by the American College of Obstetricians and Gynecologists or a reminder that patients who had gestational diabetes need diabetes screenings every three years.

Wust also set up his system so that prescriptions would automatically default from the brand-name drug to the generic option. Wust sees this as a patient compliance issue because he believes patients are more likely to take medications if they are affordable.

Since going live, the system has reduced his clinic's administrative burden. Electronic forms and a network

connection to the lab have allowed his nurses to avoid handwriting 600 requests for lab specimens a year.

For Family Medicine of Winona, a four-physician practice, the EHR has reduced duplication of tests. It also has improved followup by providing onscreen reminders to ask diabetic patients about their diet or to make sure they have a foot exam while in the office, says William Davis, M.D., one of the physicians at the clinic, which started using EHRs in 2002. It now has a comprehensive system that has capabilities for e-prescribing, taking medical notes, and viewing lab and X-ray results.

"Patients love that we maintain their medications list."

Terence Cahill, M.D.

Beyond benefits in the clinic, the system also lets patients interact with doctors through Winona Health Online, a personal health record through which patients can access their medical histories, request prescription refills, and schedule appointments.

In some cases, patients get their needs met more quickly through secure email, Davis says. "If I think it's pretty straightforward and I can tell it's not a complicated problem, I can send them a prescription," he says. "Or I can say, 'I think you need to be seen. I can't tell from what you've sent.'"

Also, Davis says doing some preliminary interviewing online can leave



Photo courtesy: MHC Technology Solutions. Photographer: Brian Salzman

John Wust, M.D., says EHRs can give small practices a quality and efficiency advantage.

more time for talking with patients. For example, if the patient completes the depression care inventory online, the physician can spend clinic time talking about the results of the inventory, rather than administering it.

"Anytime you have easier access to more data, you have the opportunity to improve what you are doing," Davis says.

Over the last three years, United Clinics of Faribault County has been using a step-by-step process for implementing its EHR system, says Terence Cahill, M.D. The clinic, with three doctors, began with practice management and is moving toward a preventive care reminder system. Overall, he says, the positives outweigh the bad moments. "Patients love that we maintain their medications list. Now, we're working on a reminder system that will help resolve confusion about immunizations."

By Mike Finley and Andrew Telljoh

MMA Quality Review Correspondents