PITTSBURGH REGIONAL HEALTH INITIATIVE
Spreading Quality.

PRHI Executive Summary

November/December 2006

Improving Chronic Care

Improvement is possible

Physician Champions Eileen Boyle and Harsha Rao focus on improving diabetes care in federally funded programs.

Inside

Chronic illnesses affect more than 90 million people in the U.S. and account for 75% of the nation's healthcare outlays, according to the Centers for Disease Control and Prevention (CDC). The CDC estimates that diabetes alone amount costs more than $132 billion.

Care of chronic illness is often marked by expense, inefficiencies and variations in practice and outcomes. These features often yield to quality engineering methods like Perfecting Patient Care℠ (PPC). But finding pilot sites in which to test the rapid-cycle improvements of PPC wasn't easy.

The reason: reimbursement systems rarely reward increased efficiency.

Private insurance misaligned

With insurance reimbursements built around acute care, there's been little financial incentive to reexamine treatment for chronic conditions. Typically, private insurance has delivered chronic care in discrete pieces, paying individual providers for individual procedures with less emphasis on coordination of care or patient outcomes. Many insurers are exploring alternative payment structures, like "pay for performance," as a way to reward efficiency.

Yet, said Dr. Donald Fischer, executive vice president of Highmark Inc., Southwestern Pennsylvania's largest health insurer, "We will be the first to admit that the incentives are not aligned" to encourage the most effective ways of treating chronic diseases.

Some private physicians press ahead

Some local private physicians have decided not to wait for a wholesale change to reimbursement to start delivering better care. The profile of Dr. William Fera in this edition describes his crusade to implement an electronic medical record (EMR), to the benefit of both patients and his business.

As a community consortium, PRHI supports adoption of interoperable EMRs.

Federal programs less constrained

Federal health insurance , which include the Veterans Administration Health Care System (VA) and Federally Qualified Health Centers (FQHCs), cover about a quarter of all Americans with health insurance. The VA and FQHCs are "closed" systems, where clinicians are employees, the compensation system does not penalize efficiencies, and changes can be well organized.

"That's why the VA and the FQHCs are important venues for us," said Karen Wolk Feinstein, PhD, President and Chief Executive of both PRHI and the Jewish Healthcare Foundation. "We can collaborate with their doctors to pursue quality improvements without the usual payment constraints."

Physician Champions test improvements in chronic care at federally funded sites

Improvements to diabetes care in federally funded systems could provide important "proof of concept" for the PPC system. That's why PRHI is engaged in two demonstration projects aimed at improving care for diabetics: one at the VA Pittsburgh Healthcare System (VAPHS) under Dr. Harsha Rao; and one at the FQHC in East Liberty under Dr. Eileen Boyle.

Drs. Rao and Boyle became two of eight Physician Champions selected late last year to pursue projects to improve quality in high-cost areas of medicine where it seemed that improvements to efficiency could lead to better patient outcomes. This newsletter describes their different approaches and their encouraging results to date.

Diabetes clinic improvements

Dr. Rao's team approach works at VA Pittsburgh

Dr. Harsha Rao is changing his clinic's approach to treating diabetes to a team model. Doing so, he believes, will not only enable him to provide more comprehensive care and improve outcomes, but allow him to see more patients.

An endocrinologist at the VA Pittsburgh Health System, Dr. Rao has been working with PRHI to implement the new model using the Perfecting Patient Care℠ (PPC) clinical quality engineering method.

VA Diabetes Team Approach

The team model aims to improve efficiency by allowing multiple practitioners to perform all necessary tasks for each patient in a single, hour-long session. Each patient's encounter becomes a comprehensive care experience.

VA site of prior success

One of PRHI's earliest PPC projects, in infection control, took place at the VA Pittsburgh Health System. VA officials used the resulting 85% decrease in antibiotic-resistant infections in that pilot unit to inform a nationwide campaign begun in August.

Comprehensive diabetes care

In comprehensive diabetes care, efficiency is a problem for both patients and physicians because of the number of routine interventions and tests required—from glucose and blood pressure management, to blood tests measuring hemoglobin A1C and lipid levels, to foot and eye exams. Physicians find it nearly impossible to do everything in a single visit and patients often can't afford the time for multiple appointments. The set-up makes suboptimal care and outcomes almost inevitable.

Increasing the Big Three: intensity, volume, and personalized care

Dr. Rao said he's been thinking about the team approach to diabetes care—and refining it in theory—over the past 25 years. With the help of PRHI, he now has the opportunity to implement it and test its effectiveness in practice.

He believes his new approach blends the best of the group model that is slowly gaining acceptance the U.S., with the individual patient visits that have long been the norm.

The group model "gives you volume without personalized care and intensity," he said, while the typical individual patient visit in the U.S. "gives you the intensity of one-on-one attention without the volume."

Dr. Rao said his team approach "combines intensity, volume and personalized care." It also can fill in gaps in care, such as nutrition and diabetes education, that many physicians are not trained to deliver, and yet are proven to help patients manage their disease better.

A role for each team member

Along with Dr. Rao, the Pittsburgh VA team consists of a nurse educator, a pharmacist, a nutritionist and a nurse practitioner. The patient spends roughly 15 minutes at each "station." Dr. Rao "floats" between all stations, observing and troubleshooting as necessary.

As a physician, Dr. Rao's role is limited to those tasks that he was trained to pursue, such as glucose, blood pressure and cholesterol management. Those goals remain unchanged in the new team model. But the team model aims to improve efficiency by allowing multiple practitioners to perform all necessary tasks for each patient in a single, hour-long session. Each patient's encounter becomes a comprehensive care experience.

In fact, as soon as he adds ophthalmologic care, as he plans to do in the near future, each patient visit will amount to "one stop shopping," Dr. Rao said.

Increased efficiency = increased volume

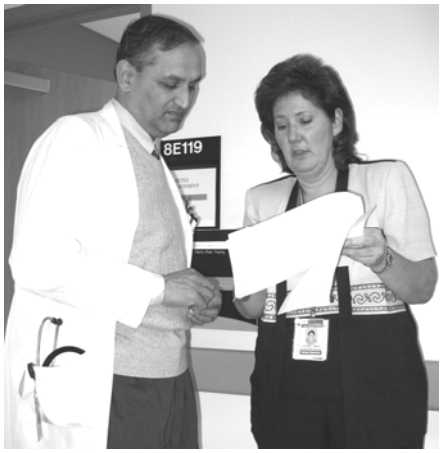
Once the new model becomes routine, Dr. Rao predicts his team members will be able to deliver comprehensive care to four patients every hour. As a result, he projects the clinic's volume will expand to 16 patients during its four-hour sessions.

He is phasing in the changes to ensure that patient care does not suffer while team members get used to the routine. Like all Physician Champion participants, Dr. Rao will document and measure outcomes as he proceeds.

A reimbursement system in the way

No matter how successful the experiment, however, don't expect widespread adoption of Dr. Rao's team model any time soon.

"The difficulty of implementing such a model in the private sector is that insurance companies don't reimburse for more than one professional visit for the same diagnosis on the same day," Dr. Rao said. In fact, some of the routine services that his team provides, such as nutrition counseling and diabetes education, often are not reimbursed under private health plans, even when they're provided during separate visits.



Harsha Rao confers with Mary Stosic during team visits with diabetic patients. Dr. Rao's approach to efficiency benefits from application of PPC principles.

The VA Health System's federal funding and salaried staff make the team approach financially feasible. For practitioners who must bill private health plans or Medicare, it may not be.

Industrial concept works

Setting up a system in which different clinicians each do different tasks associated with a patient's care is somewhat akin to setting up a production line, Dr. Rao said. He said PRHI's coaching in industry-based PPC principles helped with the implementation of his model. Dr. Rao said the methods were directly responsible for the fact that the team was able to increase the flow of patients during its four-hour afternoon sessions from eight to 12 on just the third attempt.

Importance of PPC University

All participants in the Physician Champions program learn the principles of Perfecting Patient Care℠ through PRHI's four-day PPC University. They also receive on-site coaching from PRHI staff members. Tania Lyon, PhD, assistant director of PRHI's chronic care initiative and coordinator of the Physician Champions program, is the coach at Dr. Rao's clinic.

In a nutshell, PPC teaches clinicians to identify and analyze errors and other problems in real time, at the point of care, and to rapidly adopt countermeasures to ensure that the same problems don't occur again. As problems and errors are eliminated, care is perfected.

"The fact that we attended PPC University and have had an outside observer has helped us make better choices and to improve the model as we've gone along" said Dr. Rao. "Tania points out things that we do not see and we sit down [as soon as a problem arises] to have a discussion about how to fix it."

Announcing PPC University for 2007

PRHI is pleased to announce the 2007 schedule for its popular Perfecting Patient Care℠ University. To date, over 1100 people have taken this course, in Southwestern Pennsylvania and across the country. In 2006, the curriculum underwent streamlining and continues to earn praise from participants.

This year, in addition to regularly scheduled four-day workshops in Pittsburgh, the PRHI team is available for tailored, on-site instruction in healthcare institutions.

What is Perfecting Patient Care℠? Perfecting Patient Care℠ (PPC) is an adaptation of the Toyota Production System developed for healthcare. PPC trains healthcare teams to recognize and eliminate waste, inefficiency and error in healthcare through a cycle of continuous improvement and standardization of work practices. PRHI is the only nonprofit, community organization in the country to develop and offer reasonably priced courses in the application of PPC to any interested clinician or clinical team.

PPC may begin in a single unit or department. But once the quality engineering process is set in motion, as problems are traced to practices outside that unit, a ripple effect extends improvements to other units. The result is *spreading quality*.

PPC University. PRHI teaches the principles of improvement in the four-day PPC University. This training provides clinical team members with the tools they need to dramatically improve patient safety and healthcare quality by adopting evidence-based practices and eliminating waste, inefficiency and error. The University is offered in two formats:

1. Clinicians can enroll in an intensive 4-day program in Pittsburgh.
2. PPC instructors take the program on-site to institutions wishing to train larger numbers of clinicians simultaneously. The advantages of an on-site University are that it enables staff members to be trained as teams and to do real-time observation and problem solving within their own institutions.

Curriculum. No matter which format clinicians choose, participants learn PPC through a multi-media curriculum that includes readings, lectures, videos, case studies, hands-on exercises that teach the principles of work redesign and actual observations in healthcare settings.

Cost. Tuition for PPC University's regularly scheduled four-day sessions is $1,400 per participant and includes instruction, all background reading, workbooks and materials as well as a continental breakfast, lunch and afternoon refreshments.

Tuition for customized, on-site Universities is $40,000 for 20 participants and covers all training materials, a teaching toolkit, three to four instructors and their expenses for travel and accommodations. On-site hosts are responsible for providing a training site large enough to accommodate up to 30 enrollees, continental breakfast, lunch and afternoon refreshments.

Pittsburgh schedule for 2007. January 22-25; March 19-22; May 14-17; July 16-19; September 17-20; November 12-15. Information and registration online at **www.prhi.org**.

Expanded on-site programs for 2007.To schedule on-site programs contact Registrar Barbara Jennion at bjennion@prhi.org.

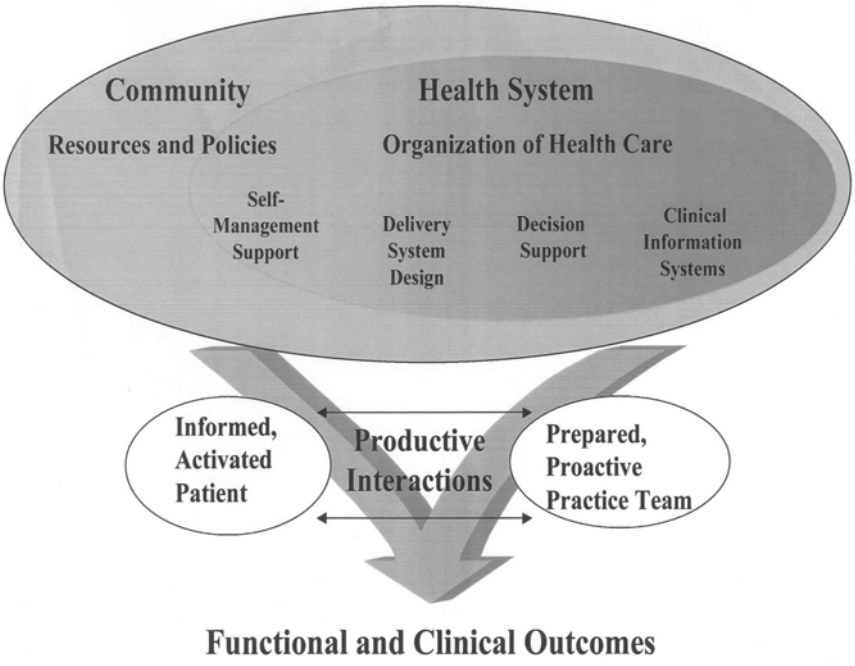
Federally Qualified Health Centers

Dr. Boyle uses PPC to implement Chronic Care Model

Physician Champion, Eileen Boyle, M.D., is overseeing implementation of a new model of care for diabetic patients and others with chronic illnesses at East Liberty Family Health Center, a federally qualified health center (FQHC). Like FQHCs nationwide, East Liberty is implementing the Wagner Model of Chronic Care, which originated with Dr. Ed Wagner at Seattle's MacColl Institute for Healthcare Innovation.

In a recently aired PBS documentary on chronic care, Dr. Wagner said, "Those who stand the best chance of receiving comprehensive chronic care are those relying on the public health system." He cited the lack of properly reimbursed preventive care among private insurance plans.

Dr. Boyle believes all medical practices will need new approaches to chronic care as private insurers and Medicare begin to pay for performance, emphasizing outcomes over the number of episodes of care a patient receives. But for now, her goal remains implementing and spreading the Wagner Model at East Liberty's two sites where she provides chronic care.



Dr. Boyle is using Perfecting Patient Care to implement the Wagner Chronic Care Model at the East Liberty Family Health Center, a FQHC. The Wagner Model calls for action on the part of everyone—from community members to clinicians to every person diagnosed or at risk of developing the disease. No longer is care physician-centric, but rooted in a system that supports the active, informed patient and the prepared, proactive practice team.

Reprinted by permission of Improving Chronic Illness Care, a national program supported by The Robert Wood Johnson Foundation with direction and technical assistance provided by Group Health Cooperative's MacColl Institute for Healthcare Innovation.

PPC training brings results

Through the Physician Champion Program, Dr. Boyle and team are learning the Perfecting Patient Care℠ (PPC) system and receiving coaching from PRHI's Learning Center Director, Mimi Priselac. Dr. Boyle says that the resulting work redesign is already producing improvements.

For example, a cornerstone of the Chronic Care Model calls for patients to set their own goals for improving their care. When Dr. Boyle's team measured patient goal-setting for the first time, "We started out at 1%," she said. "The self management goal setting was either not being done or not being documented, but with the last report, after examining and improving processes using PPC, we were up to 72%."

Wrong kinds of appointments

Recent improvements to the clinic's scheduling process have increased patient and caregiver satisfaction while reducing the number of "no shows."

Says PRHI's Priselac, "The team mapped the entire path of a patient going through their system. Once they saw the whole patient encounter, they quickly zeroed in on scheduling as a prime problem. Why was the doctor so often called out of the room during a patient visit? Frequently it was to see whether that doctor could squeeze in just one more patient."

Asking a series of "Why" questions led the team to discover where the glitch was: it was the way appointments were scheduled. Related problems surfaced, such as large fluctuations in the work load. The clinic could be crushed with activity, or idle when patients failed to keep appointments. "No shows" were a special concern among diabetic patients, who must be seen at regular intervals.

"We were over-producing the wrong kinds of appointments," said Priselac.

Preparing for open access

Together, the entire team committed to the ambitious goal of creating "open access" time in the

schedule. This would enable them to set an appointment within 24 hours of the patient's phone call, with that patient's primary care physician (PCP). It wasn't easy. Because some patients had habitually seen the first available doctor, they had to be assigned a PCP.

Other logistics had to be worked out in advance. The team had to agree on how much open time to leave in the schedule, and when. They realized that, once the system came online, rapid-cycle improvements might require further change.

Office staff created and standardized their own system of callbacks for diabetic patients. Now, if a patient fails to call in for a regular appointment, that patient will receive a call or post card from an office staffer to set up the appointment.

To prepare patients for the new "open access" appointments, office staff created a blue flyer describing the changes and handed them out to each patient for several weeks before the changeover.

Members of the entire care team met to write scripts for the telephone staff. The scripts covered basic information about the new appointment system, but included a detailed flow chart covering frequently asked questions. A beneficial side effect of the scripting is that telephone staff now also have a clearer idea of when to involve a nurse or a doctor with a patient question.

Success from the start

On October 1, after two months of planning, the clinic switched over to open access scheduling with nary a glitch. Progress charts hang proudly in employee areas of each clinic comparing before and after rates of no-shows, percentage of time patients get to see their own PCPs, and other quality measures. Even the measures are organized. Staff decides what they will measure, who will track and measure it this month. The work is evenly distributed and everyone agrees on what is being measured.

"Implementing Perfecting Patient Care℠ has helped us design and standardize the work," said Dr. Boyle. "The successful changeover of our appointment system has generated a lot of excitement on the staff. There's no more 'dead time' followed by 'crush time.' Staff feels like they have more control over their environment, and more freedom to do a better job."

Doctors and nurses able to have time to give more complete care, do their charting, and create the systems they need to implement the Chronic Care Model. From a modest 2 doctors and 17 diabetic patients in one clinic, the Chronic Care Model now covers 3 doctors and 207 diabetic patients in two clinics. The goal is to have all providers using the program, covering all 500+ diabetics.

Results

Since implementing PPC, a diabetic due for an appointment can get one within a day. No-shows have decreased from 40% to 15%. In just four weeks, productivity improved to 1.7 patients per hour, up from 1.3.

"A new issue is empty slots—of which we had none before," said Dr. Boyle. The empty slots were among pediatric physicians, so the group is calling families whose children are due for well child care.

"We clearly see that PPC offers an organized way to spread the Chronic Care Model," says Dr. Boyle.

Next month: Nurse Navigator Special Edition

When Lynda Nester needed a project to test the quality engineering skills she was learning as part of the Nurse Navigator Fellowship program, it wasn't hard to decide. A memory carried from childhood, of her great grandmother's deterioration from a fall, inspired the Mon Valley Hospital nurse's demonstration. Until the fall, the octogenarian led an active life, but "was never the same again afterward" Nester said.

Nester wanted to make sure that every possible precaution was taken to protect patients from the same fate. "Only 25 percent of patients who fall will fully recover," she noted. "25 percent of those who fracture their hips die within a year."

Along with eight other nurses in the program, Nester presented the results of her demonstration at a symposium last month. All eight participants performed projects using Perfecting Patient Care℠ (PPC), the clinical quality engineering methodology developed by PRHI based on the Toyota Production System. The fellowships were underwritten by the Jewish Healthcare Foundation and the Robert Wood Johnson Foundation.

Projects addressed various problems common in healthcare settings—from preventing falls and improving patient identification, to reducing infections and shortening time spent in waiting rooms.

The next PRHI Executive Summary will highlight all eight demonstrations in the Nurse Navigator Fellowship. The edition will take readers through the projects from conception to conclusion.

Every participant achieved results using PPC. But PPC also appeared to provide less tangible benefits, said Deb Thompson, PRHI's chief nursing officer and coordinator of the Nurse Navigator program. "The Fellows benefited from sharing their experiences and forming a learning network among themselves," she said. "PPC also helps increase nurses' engagement in problem solving and with their profession overall."

Private practitioner won't wait to innovate

Dr. Fera introduces nine myths about EMRs

That it will ever come into general use notwithstanding its value is extremely doubtful; because its beneficial application requires much time and gives a good bit of trouble both to the patient and the practitioner; because its hue and character are foreign, and opposed to all our habits and associations.

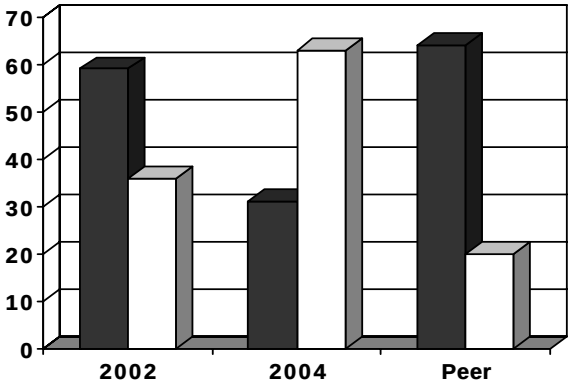
— *London Times*, 1834, in reaction to Laennec's introduction of the stethoscope

Innovations in health care have historically been met with skepticism. Studies confirm that it takes an average of 17 years for valid medical practices to move from publication to adoption in the field.

The electronic medical record (EMR) is an innovation that holds transformative possibilities for physician practices.

- One out of every 7 hospital admissions occurs because clinicians don't have access to previous medical records, and 20% of lab tests are requested because previous results have been lost. EMRs ensure that patients' records can be easily retrieved, reducing the chances of duplicate testing and medication interactions.
- Recent studies estimate that close to 30% of medical errors are because of a lack of information available at the time a decision is made.

E&M coding before and after EMR



More accurate coding with EMRs mean physicians get paid for all they do. Dark bar indicates Level 3 reimbursement; white bar, Level 4.

- Currently, people with diabetes and other chronic illnesses receive "best practice" care less than half of the time. With sophisticated decision-support capabilities, EMR software can increase the chances that best practices will be applied.
- In terms of reimbursement, EMR software streamlines coding and billing and reduces the strain on office staff.

Even with these powerful incentives, EMR adoption in private practices is catching on slowly—too slowly for Dr. William Fera, a Pittsburgh-area general practitioner. He and his partner, Dr. Joel Diamond along with others in their group decided to invest in an EMR even though it was expensive (about $80,000 per year), and no other entity would help them pay for it.

Today, Dr. Fera is an EMR evangelist, telling as many physicians as will listen about the efficiencies his practice has gained in the four years since its installation. A self-styled myth-buster, Dr. Fera addresses the top nine reasons physicians give for not purchasing an EMR system.

1. It costs too much.

"People tend to ask about money first," says Dr. Fera. "But EMRs are important because they reduce wasted time and improve quality. In the end, EMRs allow you to improve patient care while actually saving/making money. That is the real irony here.

Using his practice as an example, Dr. Fera says baseline expenses that were able to be shaved included three components: the lease on the existing billing/data system; 2.5 FTEs from support staff; and transcription service. Those services totaled nearly $175,000 per year. The lease on the new EMR cost about $80,000. All told, he saved over $94,000 in the first year.

The savings only compounded in the second year. The costs for charting and dictation simply evaporated; coding improved; overtime was greatly reduced. In fact, the practice was able to run more efficiently with four fewer employees. Productivity is up, claim denials are down, and turnaround time for reimbursement is faster.

Getting beyond the "hard cost" of the EMR system, other efficiencies are gained by improving the quality of care. With access to each patient's data, and to clinical guidelines and reporting software, every practice can benchmark itself against best practices and continuously improve care.

2. It takes too much time.

Using the features of the EMR, like electronic messaging and prescription maintenance, Dr. Fera and Dr. Diamond note that they complete 95% of their charts during the office visit, and 95% of their work by 5 p.m. Remote access to the system allows them to finish up from home if they wish.

What are the Nine Myths?

1. It costs too much.
2. It takes too much time.
3. Patients won't like it.
4. Notes are too generic.
5. Staff won't like it.
6. It isn't secure.
7. It isn't stable.
8. It will take too long to transition to the system.
9. It won't improve quality.

3. Patients won't like it.

"Nobody goes to a bank with paper records any more," says Dr. Fera. "Patients are glad that technology is finally catching on in their doctor's office."

Patients appreciate the efficiencies. Their office visits run more smoothly, too, when all lab and pharmacy records are at the doctor's fingertips.

4. Notes are too generic.

"One thing we have learned from other high-risk industries like airlines, is that standardization decreases errors and leads to safer practice," says Dr. Fera.

EMR notes are in a standardized format, but they are customizable, he points out. The structure leads to discipline, and fewer bits of information are likely to be left out.

5. Staff won't like it.

The staff benefits immediately from certain features of the EMR. E-mail, medlists, and chart search capabilities, for example, save hours of tedium and boost morale.

"High staff morale translates to high physician morale," says Dr. Fera.

6. It's not secure.

EMR software has the same level of security and encryption as banking software. Charts can be "locked," and the entire system can be audited.

7. It's not stable.

"For physicians concerned about the system crashing, I have only one question: 'How many times were you unable to find a paper chart yesterday? The paper based "server" goes down multiple times per day while our computer server has gone down less than a handful of times over four years. says Dr. Fera.

The EMR system is on constantly, and any maintenance procedures or updates can be scheduled for off-business hours. He reports less technical difficulty and higher reliability with the EMR than with his prior billing/data software.

8. It will take too long to transition into the system.

Some practices opt for a "hard start" on Monday morning with the system and all its features suddenly available. Others prefer to make a more gradual transition, scanning in old paper records as they go. Dr. Fera's practice opted for the gradual transition and discovered that by the second or third patient visit, paper charts were no longer necessary.

By the way, soon after adopting the EMR, Dr. Fera's practice also improved productivity by adding two new exam rooms.

"They used to be the chart room," he says.

9. It won't improve quality.

The EMR has made it easy for Dr. Fera to track lab numbers of diabetic patients. The ability to do this has produced some significant improvements in the quality of care he is able to provide.

"In our practice, LDL declined, from an average of 110 to 104," said Dr. Fera. "Hemoglobin A1C levels went from 7.8% to 7.3%. That means that, because of the electronic record, more than 7 of 100 diabetics didn't go to the hospital, or lose an eye or a foot."

The practice is currently implementing a patient portal in the EMR, which would allow patients to monitor their lab results and become more active in their own care—a chief tenet of the Wagner Chronic Care Model.

"There is obviously power in biosurveillance as well," says Fera. "There is power in data."

Pittsburgh Regional Health Initiative

650 Smithfield Street, Suite 2400
Pittsburgh, PA 15222

Phone: 412-586-6700
Fax: 412-412-586-6701
www.prhi.org
Email: info@prhi.org

Calendar, Winter 2006

Day	Date	Time	Event	Place	Contact	CMEs offered?	Register?
Mon-Thurs	Jan 22-25	8a-5p	Perfecting Patient Care℠ University	Pittsburgh, site TBA	Barbe Jennion, 412-586-6711 *bjennion@prhi.org*	Yes	Online www.prhi.org
Tues	Jan 25	5-8p	Chronic Care Forum IV: *Measurable Quality Improvement in Diabetes Care for Your Practice*	Harrisburg, PA Medical Society	Tania Lyon, PhD, 412-586-6709	Yes	Online www.prhi.org/chronic-care-forum-4-register.cfm
Thurs	Jan 30	5-8p		Pittsburgh Rivers Club, downtown			

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Please direct newsletter inquiries to: Pamela Gaynor, Director of Communications and External Relations
412-594-2581, pgaynor@prhi.org
Contributing writer/editor, Naida Grunden