July/August 2005

PRHI Executive Summary

Pittsburgh Regional Healthcare Initiative

Excellence in Chronic Care: Successes in the primary care setting

Tuesday, September 20

Announcement, Page 6

Feature article on diabetes, Page 4

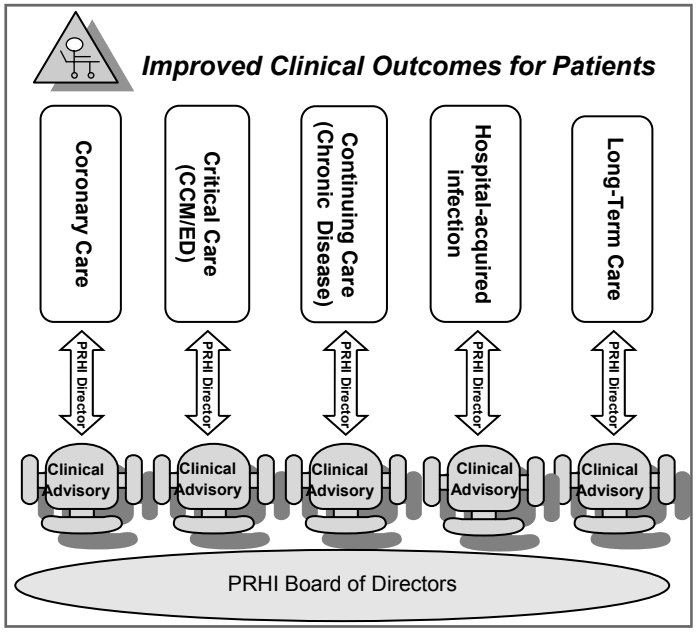
PRHI expands community model

PRHI, after listening to its partners and Board of Directors, recently unveiled an expanded model to enhance its value to the community.

"Our partners have told us where PRHI adds value," says Peter Perreiah, PRHI's Managing Director. "We must focus tightly on improving clinical outcomes for patients by helping our partners redesign work at the point of care."

As a neutral convener in the Pittsburgh region, PRHI plays a unique role in the development and transfer of clinical improvement knowledge:

Consulting one-on-one in clinical engagements to apply the principles of the Perfecting Patient Care System at point of care.



Training in practical courses on implementing healthcare safety and improvement at the point of care (Perfecting Patient Care™.)

Facilitating professionally safe, neutral Clinical Working Groups so the best improvement ideas can be rapidly shared throughout the region.

Convening forums to discuss unique regional improvement

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Inside

MRSA module

PRHI presents online learning

Here it is--everything the healthcare worker needs to know about how to eliminate the spread of methicillin-resistant *Staphyloccus aureus* (MRSA). For years, European countries have found ways to defeat this antibiotic resistant organism.

Now, courtesy of the PRHI, the Jewish Healthcare Foundation, VA Pittsburgh Healthcare System, and Centers for Disease Control and Prevention, any healthcare practitioner can learn the techniques that have resulted in an 85%+ reduction in MRSA in the areas where they are practiced.

Says the VA Pittsburgh's Candace Cunningham, RN, Team Leader in the Surgical Intensive Care Unit, "This started as a module on 4 West a couple of years ago. Now all healthcare

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SWPA Posts Major Reduction in Healthcare-Associated Infections

A joint release from PRHI and the Centers for Disease Control and Prevention—July 14, 2005

The Pittsburgh Regional Healthcare Initiative (PRHI) reported a 63% region-wide decline in healthcare-associated blood stream infections. The announcement was made on July 14, in conjunction with the Centers for Disease Control and Prevention.

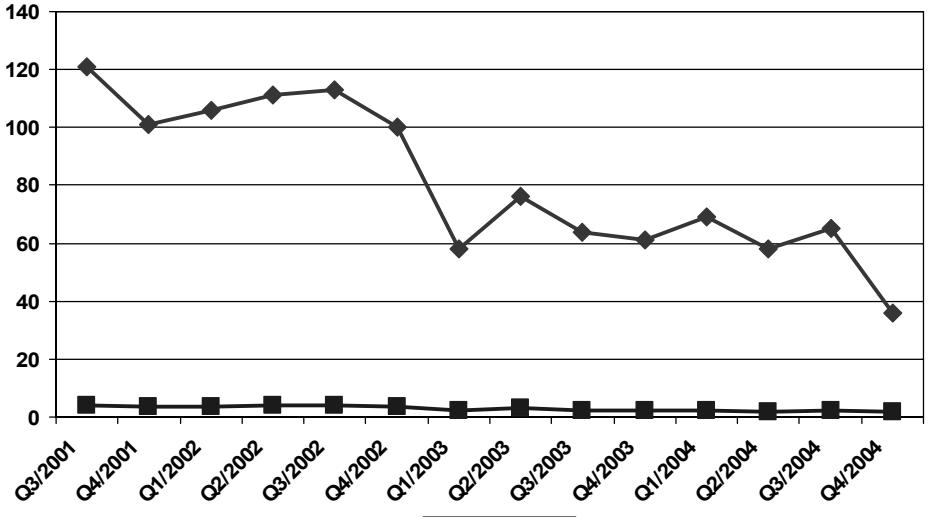
Since 2001, the number of infections reported by participating hospitals dropped from 123 infections per quarter to 36--a reduction in rate from 4.3 to 1.6 infections per 1000 patient days at risk because of the presence of a catheter. This significant decline in bloodstream infections associated with use of intravenous catheters follows an unprecedented community-wide collaborative effort with the Centers for Disease Control and Prevention to improve the quality of healthcare across the region. The region's hospitals, participating across competitive lines, provided both leadership and clinical expertise.

In hospitals alone, bloodstream infections are one of the most common causes of healthcare-associated infections, and many are associated with the use of intravenous catheters that are often required to administer treatment. Approximately 80,000 intravenous catheter-associated bloodstream infections occur in intensive care units each year in the United States. Bloodstream infections can be prevented with adherence to guidelines for catheter insertion and care; however adherence to guidelines remains a problem. (For guidelines for the prevention of catheter related infections go to: http://www.cdc.gov/ncidod/hip/IV/Iv.htm)

"These data demonstrate what can be achieved when bold goals are set, infections are examined one-by-one for causes and lessons are shared between care givers without the fear of blame," said Peter Perreiah, Managing Director of the Pittsburgh Regional Healthcare Initiative.

"The healthcare stakeholders in Southwestern Pennsylvania have challenged the traditional, by setting a goal of eliminating healthcare-associated infections in this region. By questioning the limits of what is achievable, healthcare facilities in Pittsburgh have been able to significantly improve patient safety in the entire region," said John Jernigan, M.D., CDC Medical Epidemiologist.

The CDC and PRHI began collaborating three years ago to improve healthcare quality in the



Top line shows actual number of central line infections reported.

Bottom line shows rate of infection per 1000 "line days," or the number of days a patient is at risk because of the presence of a catheter.

Quarter/ Year	# CLABs	# of Hospitals Submitting	Rate per 1000 line days
Q3/2001	123	28	4.3
Q4/2001	100	28	3.6
Q1/2002	106	28	3.5
Q2/2002	114	28	4.1
Q3/2002	116	29	3.8
Q4/2002	98	28	3.7
Q1/2003	68	28	2.5
Q2/2003	91	28	3.6
Q3/2003	65	23	2.5
Q4/2003	61	26	2.3
Q1/2004	69	28	2.4
Q2/2004	58	29	1.9
Q3/2004	65	27	2.4
Q4/2004	36	23	1.6

region. One of the novel regional approaches, called Perfecting Patient Care, adapted industrial improvement practices to healthcare. Perfecting Patient Care prevents infections by improving the design and flow of work and eliminating potential errors. Engaging front line caregivers to examine mishaps immediately and implement preventive measures are the hallmark of this method. Other elements of the collaboration include staff training about infection control measures, prevention checklists, and hospital unit feedback on infection rates and adherence to appropriate preventive practices.

PRHI is a unique coalition of major healthcare stakeholders in Southwestern Pennsylvania consisting of approximately 40 healthcare facilities, 4 major insurers, 32 major employers, civic and corporate leaders, organized labor, and local public health authorities. Eliminating healthcare-associated infection and medical errors are important PRHI goals.

Here comes NHSN

In August 2005, new National Healthcare Safety Network (NHSN) will be the standard CDC reporting mechanism for five areas of care—one of which is device-associated infection. It will replace the National Nosocomial Infection Surveillance System (NNIS).

PRHI will continue to track CLABs through the NHSN module on device-associated infection. PRHI hospitals formerly using the NNIS variant will have access to online training modules. PRHI will make training information available. Send your name and contact information to Peter Perreiah, pperreiah@prhi.org.

FAQs at

http://www.cdc.gov/ncidod/hip/nhsn/members/faq.htm

A community approach to central line infections

The Pittsburgh Regional Healthcare Initiative (PRHI) and Highmark Blue Cross Blue Shield have been working with local hospitals to reduce and potentially eliminate central line-associated bloodstream infections (CLABs). Both organizations have joined forces to focus on common goals and measures.

Two years ago, infection control practitioners and others met with PRHI and began sharing information on reducing CLABs. This group established regional guidelines and recommended that hospitals standardize what a practitioner needs to insert and maintain a central line.

For the past several years, Highmark has worked with 15 area hospitals on targeted quality improvement and patient safety initiatives. Through the QualityBLUE℠ program, the insurer collaborates with hospitals to focus on quality initiatives that impact patient care and safety and ultimately improve patient care outcomes. Hospitals that meet predetermined goals and performance targets can receive an incentive reimbursement.

PRHI and Highmark are developing common, community-focused goals and performance measures to help minimize CLABs. All of the Allegheny County hospitals in the QualityBlue program report their CLAB information to PRHI. Highmark is aligning its performance measures for the QualityBlue program to be consistent with PRHI's measures, ensuring a common community-based focus to addressing the issue.

Performance measurements associated with this quality initiative will reinforce many of the care recommendations made by PRHI in collaboration with participating hospitals. The end result could be a reduction in infections resulting in fewer complications, reduced hospital costs and shorter hospital stays. Highmark plans to continue and expand this community collaboration as the QualityBLUE program expands to address additional quality targets.

—Denise Grabner, Highmark

Questions or comments about this program? Contact Highmark's Matthew Sever at 412/544-8722 or matthew.sever @highmark.com

Perfecting Patient Care in a community health center

Of the 13,000 patients seen at the UPMC St. Margaret Lawrenceville Family Health Center, about 260 are known to have diabetes. Making sure that each of those patients receives recommended care at each visit, plus the education they need to manage their condition, has become a cause for Team Leader Jan Setzenfand. With assistance from the Jewish Healthcare Foundation, Jan attended the Perfecting Patient Care™ University, with the idea of applying the improvement techniques specifically to the care of diabetic patients. On-site coaching has been provided by Fran Sheedy-Bost, JHF's Project Leader for introducing Perfecting Patient Care in community-based organizations.

← *Before:* cluttered workspace wasted clinician time.

↓ *After:* organized supplies mean more time for clinician to spend on direct patient care.

"This is where the Chronic Care Model and Perfecting Patient Care™ meet. The model tells us what care a diabetic patient needs: Perfecting Patient Care gives us practical ways we can make sure it happens," says Setzenfand. (See boxes,these pages.)

Beginning with a question

Perfecting Patient Care often begins with one simple question. In this case, the team considered: *Do our exam rooms make it possible to deliver perfect care to diabetic patients every time?*

The observation team noticed physicians and nurses leaving exam rooms repeatedly during patient encounters to find items that were not in the room, robbing precious minutes from the exam. Setzenfand's team discovered that no two exam rooms were equipped quite alike. For example, none had large blood pressure cuffs, since they were stored in separate room. None contained a monofilament, a pen-sized instrument for measuring foot sensation, which is required every time a diabetic patient comes in for care.

Drawing on what they had learned from visiting the Perfecting Patient Care team at the VA Pittsburgh Healthcare System, and collaborating with the entire staff, Setzenfand's group set about creating a "perfect" exam room—one with the right items in the right amounts for examining diabetic patients. Counters were cleared to increase work space (see photos). Soon staff were adjusting the room to make sure the right items were there for every usual need. In all, 15 improvements were made.

The staff quickly developed a preference for using the "perfect" exam room for all patients, not just those with diabetes. So the team standardized every room into a perfect room: unused inventory came out and needed supplies—like large blood pressure cuffs and monofilaments—went in.

Physicians are now able to do more for patients during office visits. The standardized rooms made orientation for new clinicians much easier. Improvements made ostensibly in the interest of diabetic patients began to accrue to all patients.

Locally: What we know — why it matters

- Improperly managed diabetes is a leading cause of blindness, limb amputation, cardiovascular disease and kidney failure. Nationwide, deaths from diabetes have risen 58% since 1979. Locally, Beaver, Butler, Fayette, Washington and Westmoreland Counties all report higher rates of complications and death from diabetes than the state average. Diabetes hits particularly hard among Southwestern Pennsylvania's African Americans, who, for example, undergo twice as many limb amputations as whites.
- Patients with diabetes receive routine care—eye and foot exams, kidney monitoring, lipid screening and control—between 9% and 57% of the time. In other words, despite the best efforts of our medical professionals, only about half of known diabetics receive appropriate treatment.
- Our region has seen a shocking 75% increase in hospitalizations due to diabetic complications in the last 5 years at a cost of
- ***$1.27 billion*** **in hospital charges.**
- The suffering is made all the more unacceptable, because diabetic complications leading to hospitalization are *almost always preventable.*

"This isn't just about cleaning out rooms. It's about getting people exactly what they need, when they need it. Improving work flow definitely relates to clinical improvements," says Setzenfand.

Visual cues

Perfecting Patient Care techniques often rely on visual cues. From posters to post-its, visual reminders either inform or reinforce desired practice and help people do the right thing. Visual cues can help clinicians, patients and even suppliers of goods and services, like outside laboratories.

For example, diabetic patients require foot exams at each visit. Setzenfand and team discovered, as they went chart by chart, variation in the frequency and documentation of foot exams. Working with the physicians, the team devised a simple sticker for each chart that provided: 1) a reminder to do the exam, and 2) a consistent way to chart what had been done.

Diabetic patients also require a yearly, dilated eye exam to check for retinal damage. Since blindness is such a devastating potential complication for diabetics, annual eye exams are extremely important. But many of the center's patients misunderstood or overlooked verbal instructions to have their eyes tested. So the team devised a prescription-like pad describing the needed test, including the reason, the frequency, and physician phone numbers. Physicians and patients found the pads easy to use. Of the patients who received the form, 93% went in for a dilated eye exam.

Lab tests were another challenge. An internal form listed all the tests necessary for diabetics, but the commercial lab's form was different and hard to use. As a result of a meeting between the center's medical director and a lab representative, the forms were standardized, and the lab amended its form.

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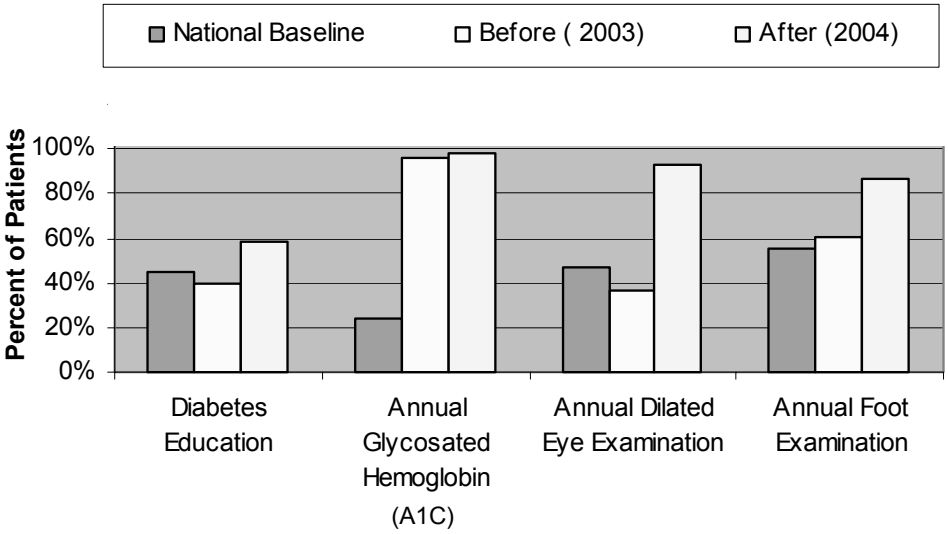
Application of PPC Has Improved Outcomes at the Lawrenceville Family Health Center



"This isn't just about cleaning out rooms. Improving work flow relates to clinical improvements." —Team Leader Jan Setzenfand, RN

What is the Chronic Care Model?

The Chronic Care Model identifies the essential elements of a health care system that encourage high-quality chronic disease care. These elements are the community, the health system, self-management support, delivery system design, decision support and clinical information systems.

The model was created by Ed H. Wagner, M.D., M.P.H., F.A.C.P., Director of Improving Chronic Illness Care (ICIC), a general internist/ epidemiologist, and director of the Seattle-based MacColl Institute for Healthcare Innovation. He is developing and testing of population-based care models for diabetes, frailty in the elderly and other chronic illnesses; the evaluation of the health and cost impacts of health promotion/disease prevention interventions; and interventions to prevent disability and reduce depressive symptoms in older adults. He has written two books and more than 200 publications.

What is Perfecting Patient Care™?

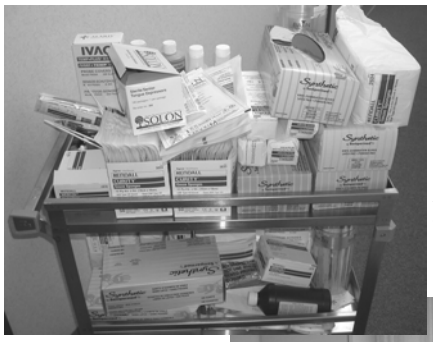
Perfecting Patient Care™, or PPC, adapts the principles of the Toyota Production System to health care. These principles offer a systematic way to use frontline observations of work and a system for identifying and solving problems all the way to their root cause in real time, rather than working around them. Using the principles can increase efficiency, safety and quality for patients and healthcare workers, and reduce cost by eliminating waste from the workplace. PPC relies on frontline personnel who actually do the work to propose and make improvements. It is not a temporary "project" but a fundamentally different way of working. To learn more about PPC and its successes in the Pittsburgh region, please visit http://www.prhi.org/ppc.cfm.

PPC in community health center — *from page 5*

Diabetes registry

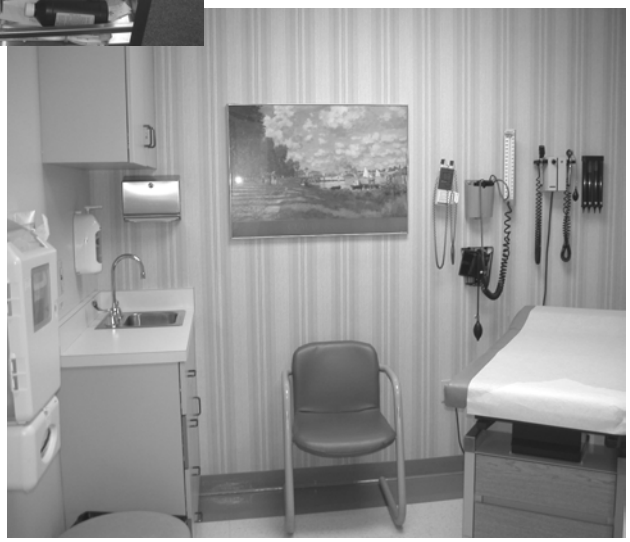
The best care will not help people who do not come in to receive it. The staff at LFHC used a one-at-a-time approach to create a registry of patients, identifying people with barriers to care, and taking steps to help them reach optimal health. They created a database of all diabetic patients, and follow up with doctors and staff members to ensure that anyone newly diagnosed, or any new patient with diabetes, is added to the list. They follow lab results to see who is getting regular blood tests, eye exams and so forth, and cross-check with reports from insurance agencies. Benefits include:

- Those patients who may have missed a blood test or a checkup receive a reminder letter or even a phone call. Regular, scheduled visits by diabetic patients are up.
- Every month, 30 to 40 patients are invited to class to learn ways to manage their diabetes. As attendance has picked up, 60% of patients are coming to class, and 95% of attendees have shown clinical improvement.



← Inventory came out of exam rooms, leaving all and only essentials.

↓ Result: a "perfect" exam room.



Join us for the semi-annual PRHI Chronic Care Forum

Excellence in Chronic Care: Successes in the primary care setting

Tuesday, September 20, 2005
5:30 – 9:00 p.m.
UPMC St. Margaret
815 Freeport Road
Pittsburgh, PA 15215-3399

Keynote speaker: Joel Ettinger Healthcare Examiner for Malcolm Baldrige National Quality Award

Consider attending if you are an office primary care physician, office manager, physicians' assistant or nurse interested in overcoming barriers to excellence in chronic care.

PRHI presents online learning — *from page 1*

workers—not just doctors—can complete the online module as part of their orientation."

PRHI's Managing Director, Peter Perreiah, and Ellesha McCray, RN, developed the module over a period of two years. It was used in 4 West, which was the pilot unit for the work in MRSA reduction. The unit has had a more than 85% reduction in MRSA infections, and the work has now spread throughout the entire hospital—including Cunningham's unit—and into the community as well.

Over the past several months, others helped to expand the module. Holly Milne, a medical school student employed by the Jewish Healthcare Foundation, improved the module with assistance from Perreiah, McCray, and Jon Lloyd, MD, the VA employee who oversees the community MRSA initiative. The work also gained support from the Centers for Disease Control and Prevention.

The result is a complete learning tool, ready for use by the entire community. (CME's are being applied for.) PRHI is proud to add this important content to its website.

The Pittsburgh Regional Healthcare Initiative, Jewish Healthcare Foundation, VA Pittsburgh Healthcare System, and Centers for Disease Control and Prevention present:

Hospital-acquired Infections, Antimicrobial Resistance, and You:
A Learning Module

http://prhi.org/lmod_view.cfm?id=8

PRHI expands community model — *from page 1*

opportunities involving a wide cross-section of healthcare interests—providers, purchasers, clinicians, healthcare institutions, etc.

Influencing the national debate on healthcare policy and regulation using examples from the Pittsburgh region.

Areas of Work

For the past several years, PRHI has facilitated Working Groups in diverse clinical areas. Some Working Groups, such as orthopedics, disbanded on their own. Regrettably, other Working Groups, notably those dealing with medication safety and hospital-acquired infection, were disbanded in a way our partners found abrupt and premature.

With the resources at hand, PRHI stands ready to continue to foster the long-term work of the Cardiac and Chronic Care Working Groups; reinvigorate the Infection Control Working Group; and help partners develop much-demanded Working Groups in Critical Care/ Emergency Medicine and Long-Term Care.

Each Working Group will be governed through its own Clinical Advisory Committee. Groups may form and disband as conditions and demand dictate, but the governance structure will eliminate the possibility of a premature halt to the work of any group.

PRHI's Regional Focus

Groups across the country, such as the Institute for Healthcare Improvement (IHI) and others routinely convene experts in various healthcare areas to generate discussion and the sharing of ideas.

What differentiates PRHI from this national model is its regional approach in Working Groups. These groups define the "what" of improvement. The Perfecting Patient Care System™, PRHI's adaptation of the Toyota Production System to health care, provides the "how."

Coronary care; chronic care; critical care and emergency medicine; long-term care; hospital-acquired infection...

Interested in joining a PRHI Working Group?

Contact Peter Perreiah, 412-586-6710, or pperreiah@prhi.org

Education: the Key

PRHI's hands-on approach to improvement can be taught and learned. Community members tell us that the educational component is one of PRHI's most valuable community offerings. To date, over 3000 participants from across the region and the country have participated in an Introductory Session, one-day PPC 101, or five-day University.

The University teaches participants the principles of the PPC System, and most important, how to apply them in a real-world setting. The course encourages participants to think of health care as a continuum or system, based on the human values of dignity and respect for everyone who touches that system.

The results of system improvements through Perfecting Patient Care can be dramatic, as this example shows. Once gloves were consistently made available at the VA Pittsburgh Healthcare System, more caregivers used proper hand hygiene—even as gloving costs decreased. Redesigning systems close to the point of patient care helped to reduce one type of infection by over 85%.

The PPC System encourages small improvements, one at a time, designed, quickly tested and modified as necessary by the people doing the work. Supervisors become partners or teachers in this process, and rapid-cycle problem-solving and learning become the goal.

Participants learn about the results achieved by several partner hospitals in Pittsburgh through this organized, one-at-a-time approach.

Using various teaching techniques—not just lecture, but videos, case study, book review, hands-on exercises, and actual observation in a healthcare setting—this unique course gives participants an idea of how these principles might be applied in their own workplace.

For more information contact: **Barbe Jennion**, 412-586-6711, or bjennion@prhi.org

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Calendar, Summer 2005

Day	Date	Time	Event	Place	Contact
Tues	August 2	4-7 p	Perfecting Patient Care Introductory Session	PRHI Learning Center PRHI Offices Centre City Tower, 24th floor 650 Smithfield Street, Pittsburgh	***CME credits offered*** ***Registration required*** Barbe Jennion 412-586-6711 bjennion@prhi.org
Tues	Sept 6				
Weds	August 3	8a-5p	PPC 101		
Weds	Sept 7				
Mon-Fri	Sept 19-23	8a-5p	Perfecting Patient Care™ University		
Thurs	Aug 25	3-5 pm	Leadership Obligation Group Forum: *Transparency* *Discussion with John Combes, MD and Linda Emanuel, MD*	Kirkpatrick & Lockhart Oliver Building 535 Smithfield Street Pittsburgh	By invitation RSVP Betsy Milliron 412-586-6714 bmilliron@prhi.org
Tues	Sept 20	5:30-9p	Excellence in Chronic Care: *Successes in the primary care setting*	UPMC St. Margaret 815 Freeport Road	Tania Lyon, Ph.D. 412-586-6709 tlyon@prhi.org