



January 2006

PRHI Executive Summary

Pittsburgh Regional Healthcare Initiative



Physician Champions: a new approach to “spread”

As the health care industry has come under increasing regulatory pressure to report and reduce medical errors, PRHI has found that excellence isn't as readily driven from outside as it is from within, by talented, passionate clinicians who challenge their teams and their institutions to deliver the best possible results. However, although passionate

about quality, physicians often know more about what they want to achieve than about how to achieve it. Moreover, their efforts to reform traditional healthcare practices often come up against barriers to change in the status quo.

Those who effect major change may find little uptake of their ideas among colleagues and others. The issue of the “spread” of improvements is a major topic among healthcare improvement experts.

Announcing the Physician Champions Program

To encourage continued, significant improvements in healthcare quality in Southwestern Pennsylvania, and to spread those changes more broadly, PRHI, in partnership with the Allegheny County Medical Society and the Pennsylvania Medical Society, inaugurated the Physician Champions program.

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Supporting the Champions and the community

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PRHI creates Centers for Transforming Care

As it kicks off the Physician Champions program, PRHI will provide these new partners with training in its Perfecting Patient Care curriculum and with on-site coaching. However, PRHI's support will also extend to other key aspects of the projects, whose outcomes ultimately will undergo both clinical and financial analysis.

To do so, PRHI has reorganized its quality improvement capabilities into four Centers for Transforming Care (CTC).

The Centers also will provide support and oversight for other projects of PRHI and the JHF, with broader community application.

The CTC includes:

- **The Perfecting Patient Care Applications Center**, which will provide the training, tools and coaching needed to implement quality improvement projects at the point of care. *Director, Peter Perreiah, 412-586-6710, pperreiah@prhi.org.*

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Physician Champion Profile

Dr. Granato's AGH team looks at training

Each edition of the *PRHI Executive Summary* during the coming year will include a profile of a Physician Champion. We will introduce them, discuss their hopes for their projects, and then check back with them from time to time. These profiles are intended to help spread the knowledge they will gain—the difficulties as well as the breakthroughs.

Many patients in hospital intensive care units (ICUs) require catheters inserted in a major vessel to deliver medicine, nutrients or fluids. These “central lines” save lives. Yet, if not properly inserted and maintained, they can become the source of lethal infections in the bloodstreams of these very ill patients. The resulting sepsis kills thousands of patients in American hospitals each year.

On Training

“The old paradigm was ‘See one, do one, teach one’.....and hope for the best. We can do better than that.”

—Jerome Granato, MD

Two years ago, two units at Allegheny General Hospital piloted a project to reduce central line-associated bloodstream infections (CLABs). Under the leadership of Dr. Richard Shannon, with support from PRHI, Dr. Shannon's team used Perfecting Patient Care techniques to standardize processes of inserting and caring for those lines. Making simple changes and increasing awareness led to an initial dramatic decline in infection.

Subsequent research has documented enormous cost savings in preventing these infections as well.

But these improvements were not sustainable, notes Dr. Jerome Granato, Vice-Chairman of Medicine and head of AGH's Cardiac Care Unit, one of the two pilot units.

“AGH is a teaching hospital, and when a whole new batch of residents and nurses arrived that July, we saw the infection rates start to creep up again,” says Granato. “Many of the lessons that were learned were not being passed on. The wave of education has to continue to be propagated.”

Background

Dr. Granato began his career as a chemical engineer. His subsequent pursuits in cardiac medicine have also allowed him to pursue his twin passions for health care improvement and continuing medical education. Along with an MBA, he also holds an interest in the business side of medicine. Dr. Granato agrees with the findings of the most recent IOM report, linking the disciplines of engineering and medicine. The key, he believes, is practical education.

“The old paradigm was ‘See one, do one, teach one’ and hope for the best,” he said. “We can do better than that.”

With his guidance, AGH created two distinct central line training modules: one for physicians, one



Beyond See one-Do one-Teach one. In addition to a course with a test, doctors at AGH receive hands-on training in central line insertion.

for nurses. The content differs somewhat, because doctors insert the lines and nurses care for them; however, the emphasis is on teamwork. The physician module includes a 60-slide show with visuals and text and a multiple-choice online test.

The training then moves to a lab with mannequins where physicians receive hands-on training in line insertion. It is known that, while inserting catheters into the femoral vein is easier to do, those lines are the most easily infected. (AGH calls for their removal within a few hours of insertion.) The focus is on training residents in the more complicated insertion of lines into subclavian or jugular vessels. These lines are more easily cared for and maintained, and result in far fewer infections. The training is mandatory for all residents and new-hires, and recertification is required yearly.

The question

Dr. Granato's inquiry for the Physician Champion program can be summed up this way: *Are there any unintended consequences of training all the physicians in the insertion of subclavian and jugular lines? Has this resulted in an improvement in other line-related complications or has there been an increase in these types of complications?*

While lines at those sites are less prone to infection, the insertion itself carries a 5% risk of pneumothorax (a collapse of the lung due to an abnormal collection of air outside the lining of the lung, between the lung and the chest wall) or arterial puncture. These are serious complications.

"The concept is that process improvement reduces complications," says Dr. Granato. "We know our training is reducing infections. We also know it is increasing the number of subclavian and jugular insertions, which carry increased risk. We need to know whether our training can also reduce the

risk of those complications as well."

In addition to learning more about the effects of training on physician skill and patient outcome, the project will document the financial consequences of the training.

Physician Champion

As a PRHI Physician Champion, Dr. Granato will have access to the Centers for Transforming Care (see page 1):

- The **Perfecting Patient Care Center for Shared Learning** will provide PPC University training for him and select team members.
- Through the **Applications Center**, an on-site coach will be available to his team.
- The **Analytics Center** will help him track the clinical and financial statistics of his case.
- The **Workforce Development Center** will help track the effect of the education on staff satisfaction.



Dr. Granato's team will undergo training in Perfecting Patient Care, offered by PRHI's Center for Shared Learning. Here, staff member Barbe Jennion assists participants in the hands-on Legos exercise.

And perhaps most important, Dr. Granato will share his findings with other Physician Champions and the community.

We will check back with Dr. Granato in a few months to see how close the team is to answering these questions, and whether they are formulating new ones.

Jerome E. Granato, MD, FACC, FAHA

Education and Training

1975, Bachelor of Engineering, Stevens Institute of Technology, Hoboken, NJ
 1979, M.D., Johns Hopkins University, Baltimore, MD
 2000, M.B.A, J. L. Kellogg Graduate School of Management, Evanston, IL

1979-82, Medical Internship/Residency, Johns Hopkins
 1982-84, Clinical Fellow in Cardiology, University of Virginia
 1984-85, Research Fellow in Cardiology, University of Virginia

Appointments and Positions

1985-Assistant Professor of Medicine, University of Pittsburgh
 1986, Director, Coronary Care Unit, Presbyterian University Hospital

1987-present, Allegheny General Hospital

- Senior Attending Physician, Cardiac Catheterization Lab
- Assistant Professor of Medicine
- Medical Director, Coronary Care Unit
- Vice Chairman, Department of Medicine

Dr. Granato is also the author of numerous articles and abstracts in peer-reviewed publications. He holds memberships in numerous professional and scientific societies, and was recently named by a panel of his peers for the 2005 edition of "The Best Doctors in America."

Combining disciplines

Engineering discipline slow to catch on in medicine

By Pamela Gaynor

Hospitals across the country have been slow to embrace quality engineering disciplines, despite research that suggests they can improve patient safety and despite increasing quality reporting requirements.

As a result, healthcare analysts agree that it's too early to tell if one approach-- whether Lean, ISO-9000, Baldrige criteria, Six Sigma, Toyota Production System, or variations on it such as the Pittsburgh Regional Healthcare Initiative's Perfecting Patient Care System-- works better than others in healthcare settings.

The Institute of Medicine reflected a growing awareness of quality engineering disciplines in its 2005 report, released in conjunction with the National Academy of Engineering, entitled, "Building a Better Delivery System: A New Engineering/Health Care Partnership."

"Maybe two percent of American hospitals have begun to meaningfully move down the road" toward adopting quality improvement disciplines similar to those that have become ubiquitous in industry, said Dr. Arnold Milstein, who serves as medical director for the Pacific Business Group. "By and large, it's a handful of individual institutions."

Institutions that have done so typically were motivated by "visionary leaders," said Milstein, who also serves as chief medical consultant to Mercer Human Resource Consulting.

Numerous analysts say that increasing reporting requirements are making more hospitals pay attention to certain quality measures and often, institutions work to boost their performance on those particular measures.

But that doesn't necessarily mean many institutions are embracing any kind of ongoing process improvement approach.

In the dozen communities where the Center for Studying Health Systems Change (CSHC) intensively monitors healthcare costs, quality, and other issues, "We only have one hospital that I know of using Lean," said spokeswoman Alwyn Cassil. That one is Seattle's Virginia Mason Medical Center, Cassil added.

More often, "they're using more familiar improvement tools" such as "chart reminders" to flag doctors' attention to individual benchmarks, such as administering beta blockers to all suspected heart-attack patients, said Hoangmai Pham, a senior health researcher CSHC.

"I think there's a lot of that -- the rifle approach to a single problem," said Dr. Robert Burney, who oversees quality improvement for the U.S. State Department's medical services and also serves as the lead discussant for a healthcare quality blog on the American Society for Quality's website (<http://www4.asq.org/blogs/healthcare/>).

Those piecemeal efforts to align performance with best-practices may help improve healthcare quality somewhat. But they won't do much, if anything, to improve efficiency or lower costs, said Burney, who earlier worked in an outpatient surgery setting, where he said he became a believer in quality engineering disciplines such as the Toyota Production System.

"That's where I think the CMS initiative will fall down," he added. "It doesn't mandate efficiency. Maybe healthcare will benefit in some respects, but people will still sit in the E.R."

However, more urgency to improve quality and efficiency could materialize as healthcare providers face the same kinds of do-or-die imperatives that befell the auto industry, several analysts said.

As more people and employers who purchase health insurance have been priced out of the market in recent years, healthcare has increasingly

Engineering, continued

become “a system that shows all the signs of just not being sustainable,” said Leroy Schwarz, a management professor at Purdue University’s Krannert School of Management and Interim Associate Director of Purdue’s Regenstrief Center for Healthcare Engineering.

“I think we’re no more than five years from a tipping point.”



PRHI announces new board officers and members

The Pittsburgh Regional Healthcare Initiative is pleased to announce that **Alan Guttman**, chief executive of Belle Vernon-based Guttman Oil, has been appointed chairman of its board of directors. He assumes the duties from **Karen Wolk Feinstein**, Ph.D., who the board appointed to serve as PRHI’s president. Dr. Feinstein also serves as president of the Jewish Healthcare Foundation.

Also appointed to serve as officers on PRHI’s board are: **Gail Wolf**, RN, DNS, FAAN, Coordinator of Nursing Leadership at the University of Pittsburgh, who has been appointed PRHI Vice chairman; **Timothy W. Merrill, Jr.**, Vice President and General Manager of NRG Energy Pittsburgh and

Chairman of the Heritage Valley Health System board of trustees, who will serve as PRHI Secretary; and **David L. McLenahan**, a partner at Kirkpatrick & Lockhart and Chairman of the West Penn Allegheny Health System board, who was appointed PRHI Treasurer.

Newly named members of the board are: **Stephen F. Halpern**, President of Woodland Management and Chairman of the Jewish Healthcare Foundation Board; **Gail Wolf**, Coordinator of Nursing Leadership at the University of Pittsburgh; and **A.J. Harper**, President of the Hospital Council of Western Pennsylvania.

Gaynor joins staff

Pamela Gaynor has been appointed Director of Communications and External Relations for the Jewish Healthcare Foundation and the Pittsburgh Regional Healthcare Initiative.

She comes to the position with more than two decades as a business journalist, covering industries ranging from steel and biotechnology to agriculture and banking. In the past year, she has worked on special assignments for the Pittsburgh Post-Gazette related to the economic, business and consumer challenges that are expected to unfold with the retirement of the baby boom.

Previously, Ms. Gaynor had covered health care for the Post-Gazette, earning national recognition for

the newspaper through a period of tremendous upheaval for the region’s hospitals and health insurers. Ms. Gaynor has also worked for the Pittsburgh Business Journal and McGraw-Hill’s news division in Washington, D.C.

Ms. Gaynor holds dual degrees from Syracuse University’s Newhouse School of Public Communications and College of Arts and Sciences and did graduate work at the University of Maryland. Her position combines the JHF Director of External Relations position previously held by Renu Zaretsky and the PRHI Communications Director position previously held by Naida Grunden. Both Ms. Zaretsky and Ms. Grunden remain in consulting roles for JHF and PRHI.

*From Page One***Physician Champions: a new approach to “spread”**

The program initially includes eight physicians practicing in six different settings. The eight emerged through a rigorous selection process that drew more than 30 physicians interested in applying PRHI’s Perfecting Patient Care (PPC) principles to greatly improve safety or practice through evidenced-based research projects.

“As a business owner and consumer, concerned both about healthcare quality and increasingly burdensome costs, I believe this work is vital to the region.”

*—Alan Guttman, CEO, Guttman Group
PRHI Board Chair*

The Jewish Healthcare Foundation provided \$25,000 grants for each project, in recognition of the nationally acclaimed successes achieved over the past few years by a small cadre of physicians who, with PRHI support, have applied PPC principles to their work with stunning success. Using these principles, significant, measurable clinical improvements have been made in infection control, pathology accuracy and cardiac surgery outcomes. Work also continues in stemming the complications of diabetes. In some instances, dramatic financial savings have been documented.

The Physician Champion Program is intended to help the entire healthcare community

amplify these successes. Clinicians receiving the first round of Physician Champion grants are:

- Dr. Eileen Boyle, East Liberty Family Health Care Center; Dr. Harsha Rao, Veterans Administration Hospital—aspects of diabetic care.
- Dr. Jerome Granato and Dr. Fred Harchelroad, Allegheny General Hospital—infection control.
- Dr. Michael Culig, Western Pennsylvania Hospital—cardiac care.
- Dr. Dennis English, Magee-Womens Hospital—improved accuracy of pap smears.
- Dr. Adele Towers and Dr. Eric Rodriguez, Benedum Geriatric Center—geriatric post-operative discharge planning.

What and How

The physicians have offered a clear idea of the improvements they have in mind—the “what.” (See sidebar). With support from PRHI, they will learn new ways to create improvement, adapted from industry—the “how.”

For more than a decade, businesses ranging from airlines to auto makers have been employing engineering principles—including the Toyota Production System techniques that are at the heart of PPC—to improve safety or competitive standing. The healthcare industry has been virtually alone in ignoring the value of these disciplines.

However, a recent call to action from the National Academy of

Engineering and the Institute of Medicine is triggering wider discussion and adoption of the engineering approach to improving healthcare. The NAE/IOM’s recent report, *Building a Better Delivery System*, made numerous references to PRHI partnerships to illustrate the value of engineering disciplines in healthcare.

As it kicks off the Physician Champions program, PRHI not only will supply its partners with PPC curriculum and coaching, but also with support for other key aspects of their projects, whose outcomes ultimately will undergo both clinical and financial analysis. With physicians partnering with PRHI in this way, improvements are expected to spread more quickly and easily across the healthcare community.

In the coming months, the *PRHI Executive Summary* will profile each physician and project, in an effort to share knowledge of both their difficulties and their progress.

“As a business owner and consumer, concerned both about healthcare quality and increasingly burdensome costs, I believe this work is vital to the region,” said Alan Guttman, chief executive of the Guttman Group and newly appointed chairman of PRHI. “I applaud the dedication of the physician champions and look ahead eagerly to see what they will accomplish.”

Physician Champions Outline Plans for Improvement

- **Dr. Eileen Boyle** at East Liberty Family Health and **Dr. Harsha Rao** at the VA Pittsburgh Healthcare System (VAPHS) are engaged in separate projects to redesign the treatment of diabetic patients with the expectation of improving outcomes and making the delivery of care more efficient.
- **Dr. Jerome Granato** and **Dr. Fred Harchelroad** at AGH are implementing related projects to build on the work of AGH's Dr. Richard Shannon, who used Perfecting Patient Care methods to reduce the incidence of Central Line Associated Bloodstream infections (CLABs) in AGH's critical care units by 90 percent. Their projects are expected to spread improvements in infection control to other units of the hospital and to other hospital-acquired infections.
- **Dr. Michael Culig** at West Penn plans to apply Perfecting Patient Care (PPC) methods to get surgical patients more quickly settled into cardiac units following their surgery. Doing so will minimize the time they are under sedation or on ventilation, thereby improving outcomes and reducing complications.
- **Dr. Dennis English** at Magee-Womens is expanding a project to improve the collection of pap smear samples to include most of the gynecologists at Magee's Womancare Associates. Improved samples reduce the number of indeterminate diagnoses and the need for additional testing.
- **Dr. Adele Towers** and **Dr. Eric Rodriguez** at the Benedum Geriatric Center are redesigning the discharge process for post-surgical geriatric patients with a goal of improving compliance with medical orders, increasing patient satisfaction and reducing readmissions.

Publication Announcement

With assistance from a grant from the Jewish Healthcare Foundation and training principles from PRHI, a group from the University of Pittsburgh School of Medicine published the following article in the December 2005 edition of the American Journal of Obstetrics and Gynecology. Lead author Stephen Raab, M.D., also serves on the Advisory Board for the PRHI Physician Champions Program. Congratulations to our colleagues.

Title: *Improving Papanicolaou test quality and reducing medical errors by using Toyota production system methods.*

Authors: Stephen S. Raab, MD; Carey Andres-Jaja, MD; Jennifer L. Condel, BS, SCT (ASCP) MT; David J. Dabbs, MD.

From Page One

PRHI creates Centers for Transforming Care

- **The Perfecting Patient Care Analytics Center**, which will support sound research design and evaluation of clinical and financial outcomes. This center also supports existing clinical registries. *Acting Director, Karyl Troup-Leasure, Ph.D., 412-586-6716, ktroup@prhi.org.*
 - **The Center for Shared Learning**, which offers formal education opportunities and facilitates the dissemination of successful methodologies and care models developed by PRHI and its partners. *Director, Margaret Priselac, R.N., 412-586-6715, mpriselac@prhi.org.*
 - **The Workforce Development Center**, which will expand on JHF's innovative work to educate, motivate, recruit and retain nurses and other health professionals through the Health Careers Futures program. *Director, Debra Thompson, R.N., 412-586-6712, dthompson@prhi.org.*
- Future editions of the *PRHI Executive Summary* will include updates from each of these centers, which will serve as resources to those in the community engaged in the challenging work of healthcare improvement.

Day	Date	Time	Event	Place	Contact	CMEs Offered?	Register?
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Thurs	Feb 9	8a-5p	PPC 101	PRHI Learning Center PRHI Offices Centre City Tower 24th floor 650 Smithfield Street	Barbe Jennion, 412-586-6711 bjennion@prhi.org	Yes	Yes
Mon- Tue,	March 20- 23	8a-5p	Perfecting Patient Care™ University	JAA—Charles Morris Nursing Center			
	March 29	5:30-9p		Allegheny County Medical Society 713 Ridge Avenue Pittsburgh, PA 15212			
Tues	March 29	5:30-9p	Chronic Care Forum "Using an Electronic Medical Record (EMR) System"	Tania Lyon, Ph.D. 412-586-6709 tlyon@prhi.org	Pending	Yes	
<i>Save the Date!</i>							
Register at www.prhi.org/chronic2006-forum.cfm							

Thurs	Apr 27	8:30a- 2p	3rd Annual Working Hearts Day	PPG Wintergarden	workinghearts.org		
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PRHI Executive Summary is also posted monthly at www.prhi.org
 Please direct newsletter inquiries to: Pamela Gaynor, Director of Communications and External Relations
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