February/March
2005

PRHI Executive Summary

Pittsburgh Regional Healthcare Initiative

Renewing the vision

PRHI is a consortium of the institutions and people who provide, purchase, insure and support healthcare services in Southwestern Pennsylvania. Our partners include hundreds of clinicians, 44 hospitals, four major insurers, dozens of large- and small-business healthcare purchasers, corporate and civic leaders, educators and elected officials. Our goals are:

*** Achieving the world's best patient outcomes by**

*** Creating a superior health system, by**

*** Identifying and solving problems at the point of care.**

"Improving quality will improve everything."

Karen Wolk Feinstein, PhD.
PRHI Board Chair

The Pittsburgh Regional Healthcare Initiative has announced an organizational change. Since 1997, PRHI has served as a neutral convener across the healthcare community, as part of a strategy of community-wide learning and improvement in patient safety. PRHI also offers educational insight and clinical implementation of the Perfecting Patient Care System™ (PPC), based on the tenets of the Toyota Production System.

Our **goal** remains perfect patient care—the theoretical limit of performance. We believe that improving quality will improve outcomes, patient satisfaction, employee retention, and the bottom line.

Our **strategy** is to concentrate on our original vision as a neutral convener in the healthcare community, as part of a larger strategy of learning and improving together across the community.

Last year, PRHI began an experiment working with certain institutions on organizational transformation through 100% real-time error reporting and problem solving. The experiment has been discontinued because it did not attain and PRHI is redirecting that funding back to its primary activities.

Staffers wishing to continue the 100% reporting work with supportive institutions are beginning a commercial, for-profit company.

Former Treasury Secretary Paul O'Neill, a co-founder of PRHI, will remain involved with both ventures.

PRHI will maintain and enhance activities supporting quality and patient safety that have proven successful, such as:

- **Community forums** led by physicians and other clinicians, which serve as learning networks. These dynamic groups include the Cardiac, Critical and Emergency Care and Chronic Care Working Groups, as well as supporting community work on pathology and infection control.
- A full **educational curriculum** for those interested in learning how to build systems of quality.
- Targeted in-house **PPC implementation assistance** for those who request it.

Inside

PRHI names Perreiah Managing Director

PRHI has announced the appointment of Peter L. Perreiah as Managing Director. For the past 3 years, Mr. Perreiah has been leading PRHI's improvement work at the VA Pittsburgh Healthcare Center's University Drive hospital.

Through this work, which is funded in part by the Centers for Disease Control and Prevention, staff on the surgery unit have achieved a greater than 85% reduction in hospital-acquired infections arising from methicillin resistant

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PRHI co-sponsors learning forum

MEDRAD hosts conference on Baldrige Criteria

"The Baldrige Award honors the outstanding performances and accomplishments of American organizations. These organizations embody the values of excellence, principled leadership and a commitment to employees, partners, and community. They join an ever growing and diverse family of Baldrige Award recipients that are leading the way to a future filled with progress and prosperity for all Americans." *—President George W. Bush*

Pittsburgh-based medical device maker MEDRAD won the Malcolm Baldrige Award in 2003—the top U.S. honor an organization can receive for quality and performance. The Award also raises awareness about the importance of performance excellence as a competitive edge. The Award is named for Malcolm Baldrige, who served as Secretary of Commerce from 1981 until his death in 1987. His managerial excellence contributed to long-term improvement in efficiency and effectiveness of government.

Criteria for the Baldrige award include ***leadership, strategic planning, customer and market focus, information and analysis, human resource focus, process management,*** and ***business results***.

The Baldrige process encourages winners to share what they've learned with others committed to quality improvement. As part of its commitment, and its charter to improve health care, MEDRAD held a conference for about 40 executives from local healthcare organizations Monday, January 24. Presenters included leaders of two hospitals who recently won Baldrige Awards: Baptist Hospital Inc., of Pensacola, Florida, and Saint Luke's Hospital of Kansas City, Missouri. PRHI co-sponsored the event.

Deborah Donovan (R), chief quality officer, Westmoreland Latrobe hospital system chats with Sam Raneri (L), Frick Hospital COO, and David Gallatin, CEO, Westmoreland Regional Hospital

Baptist Hospital Inc. includes two hospitals—Baptist Hospital of Pensacola, a 492-bed tertiary care and referral hospital and Gulf Breeze Hospital (GBH), a 60-bed medical and surgical hospital. Saint Luke's Health System includes nine hospitals and many physician practices in the Kansas City metropolitan area. Saint Luke's provides a wide range of primary, acute, tertiary, and chronic care services.

Baldrige evaluation is a multi-year process involving 1,000 hours of review and an on-site visit. With its emphasis on fact-based management, the criteria require measurement of numerous quality indicators, such as employee retention.

Nationally, hospital employee turnover rate hovers at 20% or more. Baptist has reduced its turnover from 27% in 1997 to 13.9% in 2003; and GBH improved from 31% to 14% in the same time frame. Their staff report that morale has risen from 47% positive in 1996 to 84% in 2001.

Saint Luke's employee turnover rate is 7%—6.4% for nurses. Saint Luke's employee retention has exceeded the Saratoga Institute's median for the past five years and is approaching 90%.

These hospitals made impressive gains in other areas of safety and quality, which were measured and recorded in the Baldrige process:

- Baptist developed a comprehensive tool called CARE (Clinical Accountability Report of Excellence) that uses an index scoring method to capture more than 50 departmental and hospital wide results. One result involved medication errors: whereas patients' suffered 2.5 reported medication error events per 10,000 doses dispensed at the hospital during fiscal year 2000, the rate dropped to 1.5 events per 10,000 doses dispensed in fiscal year 2002.
- Saint Luke's aligns its operations using a strategic planning process that includes its Balanced Scorecard, a color-coded, easy-to-understand report managers share with employees at all levels. Departmental action plans and an individual performance management process foster a deeply rooted sense of empowerment to identify and implement process improvement. Improvements in patient safety at Saint Luke's have coincided with improved financial performance. The hospital ranks among the top 5% of the nation's hospitals in total margin and operating margin.

Both hospitals agreed that, while an honor, winning the Baldrige was of secondary importance. Going through strategic planning and evaluation helped their organizations achieve measurable improvements in patient safety and employee satisfaction.

Further information on the Baldrige Award criteria and process can be found at ***www.baldrige.nist.gov***.

PRHI names Perreiah Managing Director, from page 1

Staphylococcus aureus, or MRSA, a virulent hospital-acquired infection. The techniques for infection reduction developed on that unit are being rolled out systematically across the three-hospital VA Pittsburgh system.

Mr. Perreiah came to PRHI from the e-commerce firm FreeMarkets, where he managed process improvement. Most of his career was with Alcoa, where he managed Alcoa's Foundry Metals business and traded metal futures before becoming Alcoa Production System Manager at Alcoa's Primary Metals business, which has 22 locations in North America. He directed the implementation of the Alcoa Business System, a version of the Toyota Production System used by PRHI.

After receiving a BA in History from Harvard University, Mr. Perreiah completed a BS in Metallurgical Engineering at the University of Kentucky. Most recently, he completed an MBA at Carnegie Mellon University.

PRHI Cardiac Forum

Regional mortality report, glycemic control targets for surgeons

The PRHI Cardiac Forum March 2 will feature two topics on the minds of the region's cardiac surgeons: mortality data and avoidance of post-surgical complications through control of blood sugar.

Regional mortality report

At the PRHI Cardiac Forum, clinicians will see the first regional cardiac mortality report. Ordinarily, hospital "M&M" (mortality and morbidity) conferences are closed-door, in-house affairs where physicians and their peers review undesirable outcomes together and discuss ways to improve.

In an increasingly robust community collaboration, PRHI's Cardiac Working Group (CWG) decided to expand learning opportunities by creating a regional mortality report to discuss and learn from any less-than-desired cardiac outcomes from across the region.

VA sponsors learning session on glycemic control

Close control of blood sugar postoperatively in all patients (not just diabetics and not just heart patients) is believed to reduce the risk of mortality, complications, infection and length of stay. Since complications following cardiac surgery can be so grave, CWG members are continuing their inquiry into this issue.

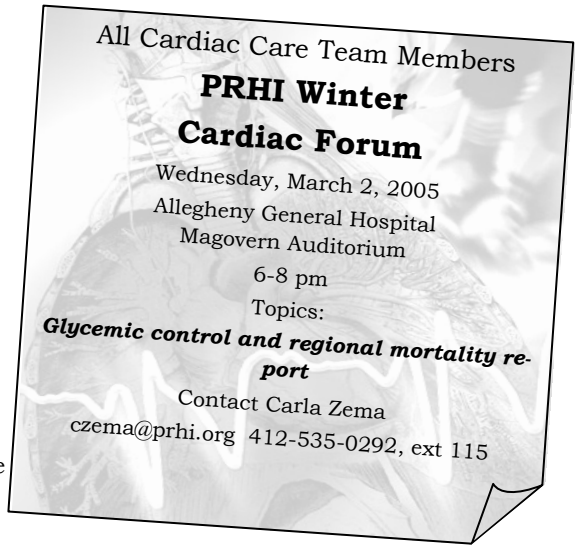
While all hospitals have insulin protocols, many are complicated and hard to implement. Members of the CWG are looking at ways to simplify the protocols—or make them easier to use.

Harsha Rao, MD, an endocrinologist who oversees the acclaimed diabetes clinic at the VA Pittsburgh Healthcare System**, is offering a chance for CWG members to learn first-hand about the VA protocol. PRHI, Dr. Rao and members of the PPC Learning Line in the VA SICU teamed to develop a dynamic, Excel-based protocol that, while complex, is extremely user-friendly. The software applies a sophisticated algorithm rather than relying on harried staff members to perform detailed calculations themselves. When the nurse enters data on patients' glucose and other values, the system calculates the insulin drip rate and rechecks the schedule.

This solves a key problem in post-operative glucose control, which requires a sophisticated response in a user-friendly tool.

How to participate

To join Dr. Rao and members of the CWG at the learning session, contact Carla Zema at czema@prhi.org, or 412-535-0292, ext 115. (The date will be determined at the Forum.)



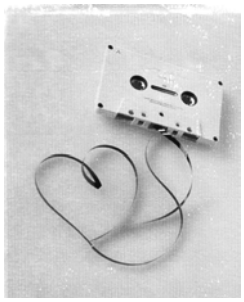
For more on VAPHS diabetes care, see:
Michael E. Moreland, MSW; Amy M. Kilbourne, PhD MPH; Joseph B. Engelhardt, PhD; Rajiv Jain, MD; Jian Gao, PhD; David S. Macpherson, MD MPH; Ali F. Sonel, MD FACC FACP; Guibo Xing, PhD. Diabetes Preventive Care and Nontraumatic Lower Extremity Amputation Rates. *Journal for Healthcare Quality*, September/October 2004.

UPMC Shadyside and VAPHS share improvement strategies

Efficient shift change benefits staff and patients

It's coming up on 3 pm and, as usual, the unit has been very busy today. But each nurse simply must take the time to report on what's gone on with each patient, so the nurse assuming the next shift will be informed. Often, what's reported are the subtle things—things that may not even make it into the patient's chart. And it's important to impart the information as close as possible to the actual shift change, when the information is the most up-to-date.

Information transferred at shift change has everything to do with quality of care—and with employee satisfaction.



The problem is that, just because the nurses need about an a half hour to convey this information to one another doesn't mean that the patients stop having needs for that hour. In fact, one hospital tracked a distinct spike in the number of patient falls during the period surrounding shift change.

And what was the typical shift change like for nurses? "Everybody hurried and scrambled," said Susan Christie Martin, R.N. "Staff looked for recorders, what their assignment was. Tape recorders helped, but sometimes you couldn't find one, or the battery was dead or the cord was missing. You could never find your place if you rewound."

Clearly, the system of conveying information at shift change presented opportunities to improve both employee satisfaction and patient safety.

Two area hospitals have tackled and streamlined shift change: one using an advanced voicemail system; one using an all-encompassing form that has since become computerized. Both report measurable improvements in time saved and information exchanged at shift change.

UPMC Shadyside

Nurses report their satisfaction with the Voicecare system, a telephonic answer to the use of tape recorders. UPMC Shadyside piloted the system on two units, and based on satisfaction, expanded its use.

The system offers several advantages: the nurse can report on patients one by one, as soon as they have been seen. Using a desktop or pocket phone in a secure, confidential area, the nurse signs in with a firewall-protected user code and dictates the report for that shift into that patient's secure mailbox.

Information is standardized for patients. For example, the system prompts the user to enter the patient's history, which is then saved. (In the days of tape recorders, patient histories had to be re-recorded at the end of every shift.) The second prompt is for what is happening with the patient today. Then there is the third area, where nurses can enter addenda about the myriad other things that might be useful for the next nurse to know. These addenda can be made at any time, any time the nurse visits the patient.

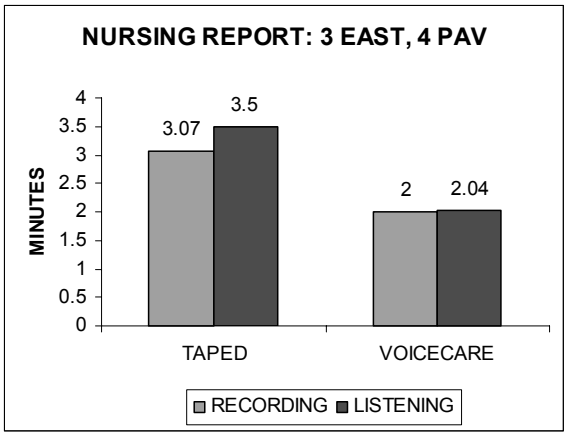
Currently, nurses use Voicecare for shift report, but the system is now being rolled out to document as patients come to and from procedural labs, and from post-op to surgical post-op. It's catching on in other areas, too. An authorized physician in an outlying office can call and get a report on a hospitalized patient, and can dictate a report into the phone to let nurses know about their patient. Emergency Department physicians call reports into patients' Voicecare phones when a patient is transferred to the floor, to convey details of the patient's initial encounter.

Certain long-term care facilities, to which UPMC Shadyside patients most often transfer, also receive passwords so that they can hear the Voicecare hospitalization reports when the patient arrives from the hospital. Voicecare reports can be recalled for up to 20 hours after the patient is discharged.

The hospital has experimented with allowing family members to dial into the system to hear the Voicecare reports. While many families appreciate the access to this information, it does not reduce the family's need to talk with a member of the healthcare team.

Results

Ultimately the two units reported a net decrease of 2.5 minutes per report. The extrapolated time savings over one year is estimated at 10,768 hours per year.



A minute here, a minute there. The Voicecare system at UPMC Shadyside adds up to hours of saved nursing time..

Veterans Administration Pittsburgh Healthcare System

From a decidedly low-tech start, the VAPHS' shift change procedure has proven a revelation for caregivers and a benefit for patients. Conveying information during a typical shift change on the 4 West pilot unit at the VAPHS, as at most other hospitals, took between 45 and 60 minutes.

The first step toward streamlining the process was a stopgap measure that immediately cut the required time. They divided the tape-recorded reports into two segments, so that nurses only listened to the half pertaining to their patients. Yet, the team discovered that even after listening to 30-45 minutes of information, the nurses were still checking for information on the computer, in the charts and in the Kardex system. Could the information from all sources be combined and streamlined?

The group decided to apply the quick changeover methods used routinely in industry. This process concentrates on getting the right information in the right order to the right people at the right time. After examining the current condition, the group asked a few penetrating questions:

- Does all of this work have to be done for the changeover? (For example, must nurses listen to reports on patients that they will not be caring for?)
- What information do nurses actually need?
- Does all the information need to be exchanged in the shift report, or at the time of need in a different way?

Two categories of necessary information are: general assessment (vitals, history) and diagnosis-specific (best-practice care for each condition). In keeping with the principle of standardized work, nurses decided to create a form that would convey necessary information in the same order every time. Doing so creates a logical way to give and receive information, and makes it obvious if information is missing. This form evolved into a laminated card for each patient and served as a checklist for care.

Despite computerization, nurses still relied on the Kardex system for certain information. They reconfigured the Kardex form in an efficient layout with all and only pertinent information. (This revised Kardex form spread quickly to other units.)

Regarding diagnosis-specific information, nurses determined that most patients on their floor were covered by about 36 common diagnoses. In teams of two, the nurses volunteered to review all information on best practices and create checklists for each condition. Over time, comprehensive checklists were created for all 36 conditions.

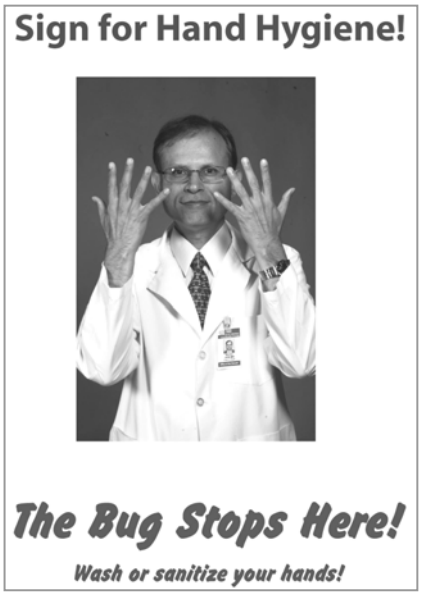
"Pilots use checklists for the most common, everyday procedures to ensure safety. With complex medical care, nobody can remember every report item for every condition—nor should they," says Peter Perreiah, PRHI Managing Director, who has worked on improvement in the unit for three years.

"Creating these checklists helps ensure that every patient will receive best-practice care," says Ellesha McCray, RN, 4 West Team Leader. "Furthermore, the time required to convey information at shift change is dramatically reduced."

A computerized version of the RN shift report uses pop-up menus to efficiently capture patient reports and support shift changeovers.

Results

Shift change times on 4 West are now shorter. The information is more complete and far more comprehensive. Patients benefit when nurses can devote more time to them: they also benefit by consistently receiving best-practice care from the checklist approach.



***A "model" of hand hygiene*: Rajiv Jain, MD, Chief of Staff at the VAPHS, is one of the "models" for posters used in the main hospital to promote 100% hand hygiene.**

At the VA Quality Fair the "Blues Brothers" presented *CSI: Bacteriaburg*, a light-hearted way to reinforce the serious patient safety goal of reducing healthcare-acquired infections. Baseline data on hand hygiene collected by the Nosocomial Infection Prevention (NIP) Committee revealed that hand hygiene is practiced less often than desired. The goal is for employees to perform hand hygiene and adhere 100% to infection control practices.

Lead, Follow or Get Out of the Way

Guest editorial contributed by Jack Flanagan, Executive Vice President, Business Systems, Giant Eagle, Inc.

A few years ago Xerox ran a television ad campaign with the tag line: "Keep the conversation going!"

I'm here to advocate that when it comes to improving healthcare it's time we develop the intellectual and intestinal fortitude to move beyond the 'conversation' and into actually 'doing.' In most areas of endeavor we call this leadership. It's time we all started leading.

" 'Not on my watch... not on my ship...not in my Navy!' From that day on, change was what we did, not what we talked about."

PRHI, the Institute of Medicine, Dr. Jack Wennberg, Dr. Don Berwick (and numerous others) have done yeoman's work in the last several years studying and documenting waste in the current healthcare 'system' (or, more accurately, 'paradigm' since there's little that's systematic about the current 'system').

These studies have essentially gone unchallenged by any serious critic. The estimates of the potential of improved outcomes and savings, astronomical as they appear at first blush, are well within the zone of achievement.

By now we all know and are prepared to chant the amazing numbers concerning:

- Avoidable deaths
- Medication errors
- Needless surgery
- Central line infections
- Excessive handoffs
- Etc., etc., etc., ad nauseam

Combined waste is on the order of 30% to 40% of health care spending or about $500-600 billion of waste annually, with over $250 billion in unnecessary paperwork alone.

Interestingly, all concerned seem to understand that the current condition is badly in need of change and there are sustainable ways to reduce the waste dramatically while improving patient outcomes, improving Quality of Work Life for health care workers and dramatically reducing costs.

Gee, sounds like a win all around. What could possibly get in the way of such an enormous opportunity? As it turns out, any number of incredibly bright and talented people continue to offer any number of incredibly shortsighted reasons why it's just too hard to change the paradigm. Just a few include:

- Healthcare is different. We have to manage this way.
- 'Bean counting' is inappropriate to the practice of medicine.
- It's an insulting and trivial effort to actually expect, let alone require, prescriptions to be written legibly.
- Only the professionals who've caused the current paradigm to evolve have the qualifications to change to a dramatically improved paradigm.
- Measurement (transparent, current, and sufficiently granular) will be used against us in judgment rather than as a vehicle for improvement.
- Plan providers and payers want 'world class' healthcare. They just don't want to pay for it.

I could go on, but I think you get my point.

As you work your way around these and countless other reasons why someone else should make the first (if not all) move to improve the paradigm you have to ask yourself, "Do we actually want to improve health care and simultaneously lower costs? Or are we content to continue to simply talk about it?"

Countless other industries and enterprises have seen the need for dramatic change built around simple, albeit counter-intuitive principles. Those that recognized the need and actually have changed are thriving. Those that have taken the dinosaur approach either are or are on the way to becoming extinct.

The steel, airline, automotive, and telephone industries (not to mention my own, retailing) all share many of the characteristics that will cause health care enterprises to adapt or die. As an

Guest editorial, continued

example, while United, American and US Airways claim that they're in an industry that simply can't run profitably (with or without high customer satisfaction) JetBlue and Southwest continue to thrive because they – not the industry, not the regulators, not the lenders, not the lawyers – dared to look at the world differently and then take action.

If you've stuck with me this far please permit me a sea story from a previous professional life. I was a career naval officer at a time ("70s) when drug use was rampant in the United States Navy. For years there were plenty of discussions about what should or could be done about this scourge but precious little action beyond studies and isolated 'demonstration' projects. In 1981 the Chief of Naval Operations changed the paradigm by changing the nature of the discussion. His rallying cry was simple – "Not on my watch… not on my ship…not in my Navy !" It was a simple, direct and actionable call that was backed up by various system changes. The day those words were published to the fleet and shore establishment was the day that folks knew that from now on change was what we did, not what we talked about. Need I add that drug use began a rapid and sustained decline?

In a similar vein, it's time for hospitals, plan providers, employers, and others in the current 'system' to stop the ceaseless, fact-laden collegial discourse and actually start doing something. Let's pick something meaningful, put a stake in the ground, and actually do something about it.

Lead, follow, or get out of the way!

What will be your choice ?

Jack Flanagan is EVP – Business Systems at Giant Eagle. As such he leads the effort to wring waste or muda *out of Giant Eagle's myriad business processes. He can be reached at jack.flanagan@gianteagle.com*

*Would you like to submit a guest editorial? Do you have an article idea for the **PRHI Executive Summary**?*

PRHI is a community forum for sharing improvements. We are eager to share what you are learning in your organization. We are looking for your stories—the ones that make you and your staff proudest, the ones that make a real difference for patients.

We would like to consider your stories about measurable:

- ***Sustained results**—progress in a system of patient or worker safety that improved outcomes and have been sustained for 6 months or more.*
- ***System improvements**—data-driven, developed "bottom up" by staff, with facilitation from teachers or leaders .*
- ***Techniques**—was it TPS? PPC? TQM? Lean, 6 Sigma, Baldrige? Or a hybrid process? Implementation is the key: how did you do what you did?*
- ***Leadership and culture change**—winning hearts and minds and managing to change "the way we do things around here."*

We are interested not just in what you did, but how you did it.

Contact Naida Grunden at ngrunden@prhi.org.

Pittsburgh Regional Healthcare Initiative

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Calendar, April 2005

Tuesday, April 5	Information Session, PRHI Offices	
	Centre City Tower*	4-7p
Wednesday, April 6	PPC 101*	
	Centre City Tower, 5th floor	8a-5p
M-F, May 16-20	Perfecting Patient Care University	8am-5pm daily
	Centre City Tower, 5th floor	

For further information about meetings of:

Cardiac Working Group or Critical Care/Emergency Medicine Working Group
Contact: Carla Zema, 412-535-0292, ext. 115, czema@prhi.org

Chronic Care Model Action Group
Contact:Tania Lyon, 412-535-0292, ext. 118, tlyon@prhi.org

**Pre-registration required; *CEUs and/or CMEs offered. For further information or to enroll, call Leslie Smith, 412-535-0292, ext. 102, or lsmith@prhi.org*

Contact Us

PRHI Executive Summary is also posted monthly at ***www.prhi.org***

Please direct newsletter inquiries to:

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