

PRHI Executive Summary

November 2001

Reporting session held on PRHI retreat

Over two October days, 45 community leaders convened for an overnight retreat at the YMCA camp, Kon-O-Kwee. Physicians, pharmacists, clinicians and hospital CEOs joined insurance providers and other community leaders to discuss PRHI's direction for the coming year. Steve Solomon, MD, Chief of the Healthcare Outcomes Branch of Atlanta's Centers for Disease Control and Prevention, rearranged his schedule at this difficult time to attend the retreat.

The retreat provided an extraordinary opportunity for leaders of different systems to sit down together in an atmosphere of mutual trust and respect. In addition to renewing their commitment to the PRHI mission, leaders reviewed this year's accomplishments and

Continued, page 4

\$4.8m AHRQ grant awarded

The National Agency for Healthcare Research and Quality (AHRQ) has entered into a three-year, \$4.8 million cooperative agreement with the Pittsburgh Regional Healthcare Initiative (PRHI) partners

including 30 area hospitals, Carnegie-Mellon University, the Centers for Disease Control and Prevention, Purdue University, RAND Corporation, the University of Pittsburgh School of Medicine, and the University of Pittsburgh School of Pharmacy, and the U.S. Pharmacopeia.



L-R: **Martin McGuinn**, Chairman & CEO, Mellon Financial Corp., PRHI Co-chair; **John Paul**, Executive Vice President, UPMC Health System; **Charles O'Brien**, President/CEO, West Penn Allegheny Health System

Carl Sirio, M.D., Associate Professor of Anesthesiology, Critical Care Medicine at the University of Pittsburgh School of Medicine and a PRHI Clinical Committee Co-chair is

the Principle Investigator. Other PI's are **Ed Harrison**, PRHI's Patient Safety Director, **Carlene Muto**, MD, Nosocomial Infection

Continued, page 2

First Cardiac Forum held

Pittsburgh's first Regional Cardiac Forum was held Friday and Saturday, October 12 and 13 at West Penn Hospital. Cardiac surgeons, cardiologists, and other healthcare professionals from throughout the region convened to discuss the key findings of the PRHI Cardiac Report. The report is the culmination of months of work by the Cardiac Working Group to develop common regional measures for the processes that influence mortality and atrial fibrillation. The Forum introduced a cardiac data registry that will allow clinicians to link patient outcomes with care processes. Presenters emphasized ways that registry data can be used to reduce unwanted variations in cardiac care outcomes.

Featured speakers from other regional initiatives described how they have used similar data to improve patient care. Gerald O'Connor, PhD, DSc, Director of the Data Registry for the Northern New England Cardiovascular Disease Study Group (NNE), presented NNE's approach to changing processes of clinical care to improve coronary artery bypass graft mortality rates. Dr. William Nugent, MD, Director of Cardiothoracic Surgery at the Dartmouth-Hitchcock Medical Center, offered the surgeon's perspective on using data to improve processes of care. 



Inside ...

Clinical Initiatives	2
Patient Safety	2
Center for Shared Learning	3
Partner Spotlight	6
November Calendar	6
Progress Report	7



Clinical Initiatives

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PRHI's partnership among clinicians, businesses, hospitals and insurers aims to achieve perfect patient care in five pilot areas by constructing outcome data that caregivers trust; and supporting collaborative efforts to improve care based on those data.

Depression and Diabetes Work Continue

The Depression Working Group finalized its report. A subcommittee will develop grant proposals supporting new approaches to coordinating the work of primary care physicians, psychiatrists, and other providers under a new reimbursement mechanism that may provide more continuous care. Also under consideration are relationships with employers to test the impact on absenteeism and productivity, when better intervention is available.

The Diabetes Working Group is preparing to release its final report in November, but is already planning regional interventions. A planning subcommittee met in September to develop an "A-3" (strategic plan) for the project, using TPS tools to help focus on concrete measures to take in the coming year. Those involved in the October planning session will report back at the November meeting of the Clinical Advisory Committee. ☐

Patient Safety Programs

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PRHI partners are working collaboratively to eliminate two major patient safety concerns: Healthcare-acquired infections and medication errors.

Advisory Committee Chair, and **Robert Weber**, R.Ph., M.S., Adverse Drug Event Advisory Committee Co-Chair.

This grant will fund a project to accelerate PRHI's collaborative, community-wide efforts to eliminate hospital-acquired infections and medication errors. The project will demonstrate how entire communities-supported by local, regional, and national partners-can become networks of learning and patient safety improvement guided by current, useful data.

The research project will help PRHI partner institutions evaluate the effectiveness of patient safety reporting systems; formulate patient safety improvements based on data from those systems; assess the impact-both qualitative and quantitative-of the

resulting actions; and experiment in adapting continuous quality improvement techniques from other industries to health care. As part of this cooperative agreement, AHRQ will convene awardees from around the nation quarterly to learn from one another.

The award is part of an AHRQ-sponsored effort to conduct and support research and build public-private partnerships to identify the causes of preventable health care errors and patient injury in healthcare delivery; develop, demonstrate, and evaluate strategies for reducing errors and improving patient safety; and disseminate effective strategies throughout the healthcare industry.

The University of Pittsburgh School of Medicine will administer the grant on behalf of our community. ☐

AHRQ grant
continued from page 1

Center for Shared Learning

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The mission of PRHI's Center for Shared Learning (CSL) is to support the testing and implementation of a system-based approach to healthcare management, drawn from the Toyota Production System (TPS) and Alcoa Business System.

Problem-solving produces savings, satisfaction

The goal of the Center for Shared Learning is to:

- ◆ Provide support (political, technical, and financial) to targeted learning lines.
- ◆ Develop teaching and mentoring capability.
- ◆ Create dynamic educational materials.
- ◆ Establish formal structure for regional shared learning.

At two demonstration sites, PRHI is using the principles of the Toyota Production System (TPS) to help workers perfect medication delivery. These universal principles help the collective efforts of many people toward a common purpose—achieving the ideal goals of delivering customer (patient) needs on demand, defect free, one by one, immediately, with no waste, in a physically, emotionally, and professionally safe environment.

Case in Point

At the leadership retreat, Deb Thompson, who has been involved on the learning lines at Presbyterian and South Side Hospitals, described some of the surprising ways in which TPS problem-solving has led to improvements. For example, tracking one late medication—and solving the problem to its root cause—resulted in all morning medications being delivered on time, with increased accuracy. Streamlining the pharmacy at South Side Hospital reduced the inventory, producing savings of \$50,000.

More Learning Lines to Come

Several new learning lines will begin in the coming year in different hospital systems including West Penn Allegheny Health System and the VA Medical System. While TPS is designed with patient care in mind, it also allows workers to succeed in their work, reducing frustration and dissatisfaction. Leaders were urged to get

involved on the learning lines, which will allow them to see problem-solving and wasted reduction through “new eyes.”

Extending the Learning Lines

Discussion at the retreat included ways of expanding the TPS problem-solving “help chains” *vertically*, pulling assistance as needed to the point of patient care all the way from the CEO's office, and beyond—from payers, regulators and legislators. Patients, families, and primary care physicians should also be considered *horizontal* extensions of the help chains. Getting everyone involved in solving problems to their root cause will streamline systems—from reimbursement to cost, savings, readmissions, and quality.

“Can you make the system agile?” asked Ralph Schmeltz, MD. The TPS learning line is designed to operate like the human body, with each segment operating independently, but as part of the whole. This feature makes the TPS problem-solving very adaptable—ideal for customizing in a hospital setting. 

Toyota Production System?

Now that PRHI is adapting this learning system to health care, it's time for a new name. Let's move on from cars and industry, and find a name for this system that reflects our values and emphasis on the patient.

Please contact Diane Lares at the Center for Shared Learning with your ideas: 412-594-2577 or e-mail lares@jhf.org. Deadline is October 31

Leadership retreat reaffirms direction, continued

Attendees gained a greater understanding of PRHI's framework for changing the healthcare system.

Reacting to the tone and content of the discussions, Dr. Solomon said, "You're several steps ahead of where most people are. In a room full of competitors, you can talk openly about waste in the system, about patients' needs not being met. The usual response is, 'Not me. Not my hospital.' Or, 'There's nothing we can do about it. This is the way it's been and always will be.'

"Here, you accept and identify the problems. You have a collaborative plan in place that puts you in the position to make real changes. You say, 'We can address it and we can succeed.' Usually, this kind of coalition is so defensive and so competitive that they wouldn't even sit down together. The level of leadership I've seen here is just amazing. PRHI is far ahead of other efforts."

"This is the year in which we must prove our concept," said Karen Feinstein, PhD, PRHI Chair. "We must deliver on the learning lines, the registries, on medication error and infection rates. We need to record what we do and share it."

Accelerating Action

On the heels of the year's accomplishments, PRHI is now in the position to accelerate the action. The region wide network is ready to share broadly what it learns, transforming those learnings into measurable improvements. Gathering consistent data from throughout the region is now largely in place for each area of the initiative.

Next year's task is for each clinical unit and institution to accelerate improvements in care using what we learn from analyzing

the root causes of systemic problems. In addition, we are beginning to learn how applying the disciplined TPS learning system across all areas could yield lasting, sustainable change. Improving the quality of care using the TPS model will reduce waste in the system—acknowledged by all present to be a major, yet controllable, problem.

Most of all, however, participants recognized how much progress we are poised to make by focusing on *patients*.

"We don't want to obsess on following the cost," said cardiac surgeon Michael Culig. "We want to obsess on patient care. *Quality* will drive down cost."

Clinical Initiatives

In the coming year, clinical initiatives will focus on:

- ◆ Cardiac Registry – (See *Cardiac Forum*, page 1) Starting by documenting two key

patient outcomes (death and atrial fibrillation following coronary artery bypass graft surgery), the registry will help key leadership make the jump from acknowledging variation in outcomes to taking actions known to improve them. The registry will serve as a template for similar efforts in other clinical areas.

"This system of measuring the quality of care is in its infancy," said Tom Smitherman, MD. "But through the cardiac registry, we hope to prove that it can be done."

- ◆ Link to TPS – By setting up learning lines in a cardiac and an orthopaedic unit, we will further embed the capacity to learn and change processes in one or two intensively supported sites.

- ◆ Outpatient Care – Improving treatment in depression and/or diabetes moves PRHI closer to addressing the needs of a person rather than a patient and engages large audiences in system thinking.


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—STEVE SOLOMON, MD
 CENTERS FOR DISEASE
 CONTROL AND PREVENTION
 ATLANTA



L-R: Steve Solomon, MD, CDC, Atlanta; Michael Culig, MD, Mark Laskow, CEO, Greycourt & Co.

◆ Round II Outcome Measurement – By completing a repeat report on orthopaedic and cardiac care, we will for the first time be able to understand changes in outcome and delivery over time and establish PRHI as a credible long-term accountability mechanism for health providers and plans in our region.

Medication Errors

In the coming year, the Medication Errors committees intend to:

- ◆ Use MedMARx system at all PRHI hospitals to collect and share data on medication errors.
- ◆ Increase reporting rates by an average of 50% from pre-MedMARx levels.
- ◆ Establish real medication error rates in target areas selected from baseline data, and exceed 25% reduction in those rates.

Soon, all PRHI hospitals will have a common system for reporting medication errors, the MedMARx system. Pittsburgh is the first region in the country where all hospitals have agreed to share this data.

Creating a blame-free environment in which to report errors is essential. Where mistakes are punished, no learning takes place.

Mercy Hospital has instituted a medication error reporting hotline, which has successfully increased reporting rates. While MedMARx was challenging to implement, they are online with it and are already using the information on factors contributing to errors gleaned from MedMARx reports to analyze and fix the most prevalent problems.

“We were seeing the same groupings of drugs interacting, over and over. We looked at what contributed to those repeated errors and began to fix the problems,” said JoAnne Narduzzi, MD, Executive Vice President for Medical Affairs at Pittsburgh Mercy Health System.

Before MedMARx, Mercy had not realized how much time pharmacists were investing in correcting physician orders—a point of waste in the system. Mercy is also examining some staffing issues in response to information from the MedMARx reports.

Hospital-Acquired Infection

In the coming year, the Nosocomial Infection committees intend to:

◆ Establish verified baseline catheter-associated bloodstream infection rates at Intensive Care Units (ICUs).

◆ Aspire to 20% or better reduction in catheter-associated bloodstream infections at all PRHI hospital ICUs.

◆ Measure baseline rates of antibiotic-resistant infection (MRSA); design and share interventions to control it.

◆ Establish TPS pilots for infection control.

◆ Begin surveillance program to eliminate clinical wound site infections with cardiac and orthopedic projects.

Thanks to the CDC partnership, all PRHI hospitals are able to use a derivative of the NNIS system for reporting bloodstream infections. Collecting this information region wide adds credibility to the data. Dr. Solomon noted that the idea is to continue to strive for *zero* nosocomial infections across this region.

The CDC is also partnering with PRHI to pilot a TPS learning line in infection control. The work will be led by Peter Pereiah, former Alcoa executive and TPS expert, with Robert Muder, MD, at the VA, and Carlene Muto, MD, at UPMC Presbyterian.

Toyota Production System

Center for Shared Learning Director, Vickie Pisowicz, described TPS' objectives for the coming year. *More discussion can be found on page 3.*

Thanks to the information-sharing at this retreat, PRHI leaders more fully understand where we are, where we want to go, and how we intend to get there.☺



Back row: **William Jesserer**, Dist. Mgr, Aetna US Healthcare; **Cliff Shannon**, President, SMC Small Business Councils

On couch: **Steve Solomon**, MD, CDC; **Susan Hosek**, Senior Economist, RAND; **Carl Sirio**, MD, Associate Professor, University of Pittsburgh School of Medicine

Foreground: **Tom Smitherman**, MD, Professor of Medicine, Medical Director, Cardiac Intensive Care, UPMC; **Marlene Garone**, MD, Vice President, Operations, West Penn Hospital

If you would like a copy of the retreat publications, please call Naida Grunden at 412-594-2572 or e-mail her at grunden@jhf.org

PRHI Partner Spotlight

Clinical Advisory Committee — Depression Working Group

We are always updating our lists. If you note errors or omissions, please call Tony Kelly at 412-594-2567

Marian Block, MD Chairperson, Dept. of Family Medicine & Med. Director for Quality West Penn Hospital	Barry Fisher, MD President Pittsburgh Psychiatric Assoc.	John G. Lovelace, MS, MSIS Chief Program Officer Community Care Behavioral Health Organization	Carey Vinson, MD Highmark BlueCross BlueShield
Carl Sirio, MD Associate Professor University of Pittsburgh School of Medicine	Michael Flaherty, PhD Director of Behavioral Healthcare Initiatives Jewish Healthcare Foundation	Lonnie L. Marshall, DO Medical Director, Psychiatric Services Sewickley Valley Hospital Jenna Merrill St. Clair Hospital	Cliff Waldman, MD Medical Director, Western Region, HealthAmerica
Timothy M. Casey Director, Information Systems Allegheny HealthChoices, Inc.	Mary L. Fleming Chief Executive Officer Allegheny HealthChoices, Inc.	Ann Negri, PhD Executive Director Pittsburgh Psychiatric Society	Alan A. Axelson, MD Highmark BlueCross Blue Shield
John Delany West Penn Hospital	Ellen Frank, MD Western Psychiatric Institute & Clinic	Van Nickell, MD Allegheny General Hospital	Sam Donaldson, PhD Vice President, Clinical Services WOA Magellan Behavioral Health
Craig Domeracki General Manager Aetna US Healthcare	Marlene Garone, MD Vice President, Operations West Penn Hospital	Harold Pincus, MD Chief, Division of Geriatric Medicine University of Pittsburgh	Frank Ghinassi, MD Western Psychiatric Institute & Clinic
Donald E. Fetterolf, MD Medical Director, Health Care Informatics/Research Highmark BlueCross BlueShield	Dolores Gonthier, MD Medical Director Aetna US Healthcare	J. Octavio Salazar, MD Community Care Behavioral Health Organization	Joel Merenstein, MD UPMC St. Margaret
Marnan Fischbach, MD Magellan Behavioral Health	Roger Haskett, MD Western Psychiatric Institute & Clinic	Paul M. Vaughn, MD, MPH Vice President, Medical Affairs Western Region, HealthAmerica	Burt Singerman, MD Associate Medical Director Magellan Behavioral Health
	Judith Lave, PhD Professor of Health Economics University of Pittsburgh		

Calendar at a glance, November 2001*

Tony Kelly, Administrative Coordinator
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Nov 5	Co-Chairs Lunch Patient Safety Executive Committee	12-1:30 pm 2-4 pm
Nov 6	Nosocomial Infections Working Group Leadership Obligation Group—Duquesne Club	8am—noon 2-4 pm
Nov 13	ADEAC Group Meeting Center for Shared Learning Information Session	3-4:30 pm 6-9 pm
Nov 15	Buying Healthcare Value Clinical Advisory Committee—Allegheny County Medical Society	2:30-4 pm 6-8 pm
Nov 20	Center for Shared Learning Information Session	6-9 pm

*all meetings at JHF offices unless otherwise noted

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Progress Report



This month has marked increased participation in the MedMARx medication error and National Nosocomial Infection Surveillance (NNIS) reporting systems.

PRHI Partner	NNIS Blood Stream Infect'n Report to CDC			MedMARx med. error report sys.	
	Data release	Profile submitted	1st qtr data	Contract?	System in use?
Butler Memorial Hospital*					
Children's Hospital of Pittsburgh					
HealthSouth Rehab. Hospitals	n/a	n/a	n/a		
Heritage Valley Health System, Inc.*					
Sewickley Valley Hospital					
Medical Center—Beaver					
Latrobe Area Hospital*					
Lifecare Hospitals of Pittsburgh, Inc.	n/a	n/a	n/a		
Monongahela Valley Hospital, Inc.					
Ohio Valley General Hospital					
Pittsburgh Mercy Health System					
Mercy Hospital of Pittsburgh					
Mercy Providence Hospital					
South Hills Health System					
Jefferson Hospital					
St. Clair Memorial Hospital*					
St. Francis Health System					
Uniontown Hospital					
UPMC Health System					
Bedford Memorial					
Braddock					
Horizon					

PRHI Partner	NNIS Blood Stream Infect'n Report to CDC			MedMARx med. error report sys.	
	Data release	Profile submitted	1st qtr data	Contract?	System in use?
UPMC, continued					
Lee Regional					
Magee Womens Hospital					
McKeesport					
Passavant					
Presbyterian					
Rehabilitation Hospital	n/a	n/a	n/a		
Shadyside					
South Side					
St. Margaret					
Western Psychiatric Institute	n/a	n/a	n/a		
West Penn Allegheny Health System					
Allegheny General Hospital					
Allegheny Valley Hospital					
Canonsburg General Hospital					
Forbes Regional					
Suburban General					
West Penn Hospital					
Westmoreland Health System					
Frick Hospital					
Westmoreland Regional Hospital					

* Collaborating w/ national VHA Patient Safety Initiatives

