PRHI Executive Summary

November/December 2001 *

Patient Safety

Breakthrough

Pittsburgh has just become the first community in the country where regional hospitals, including competitors, have begun reporting *and sharing* data on medication errors and hospital-acquired infections for the purposes of learning and improvement. Information from *each* reporting hospital can now be shared with *all* reporting hospitals, thus dramatically accelerating the learning process.

♦ On November 13, representatives from reporting PRHI hospitals met to discuss the first round of collective medication error reporting, using MedMARx. (All hospitals now have MedMARx; most are online with it; all are committed to being online by Spring).

♦ Through our partnership with the CDC, all of the region's hospitals are now sharing their second quarter of data reports on central line-associated bloodstream infections in intensive care units (ICUs). Using the common reporting tool derived from the NNIS system, PRHI is working with the CDC to further refine the formats for distribution.

Clinical Initiatives

Cardiac Forum advances data registry

What if one community reduced mortality from cardiac bypass surgery by a quarter, through the use of five relatively cheap and simple strategies? How would you share what your community had learned?

In October representatives of Pittsburgh's cardiac surgery centers held PRHI's first Cardiac Forum, invited members of the Northern New England Cardiovascular Disease Study Group (NNE) and others to the launching of a collaborative new Cardiac Data Registry. The registry, modeled after NNE's, will record the outcomes of all cardiac bypass surgery patients in the Pittsburgh region, and will link those outcomes to the processes of care the patients received. Over time, the data will begin to show cardiac care teams which processes lead to the best outcomes.

But why wait? Using data from its registry and subsequent process changes, NNE

Center for Shared Learning

Toyota of America offers assistance

Mr. Haijme Ohba, leader of the Toyota Supplier Support Center (TSSC) , visited Pittsburgh on October 23 to observe the two existing learning lines at UPMC Presbyterian and South Side Hospital.

At the learning lines, Mr. Ohba made several observations and recommendations. Workers on the learning lines found his insights inspiring.

The Toyota Motor Corporation of North America—specifically, TSSC—has graciously offered to help PRHI apply the principles of the Toyota Production System in the healthcare setting. In fact, Mr. Ohba's assistant, Ms. Cindy Kuhlman-Voss, has already made a subsequent trip to the learning lines to help. We are excited to add Toyota of America to the PRHI partnership.

* Due to a foreshortened holiday schedule, this edition of *PRHI Executive Summary* covers two months of events. Monthly summaries will resume in January.

Inside . . .

As seen in the

PITTSBURGH BUSINESS TIMES

NOVEMBER 9, 2001

Pittsburgh Healthcare Initiative reviews 2001 progress, looks ahead

BY JANE-ELLEN ROBINET

DOWNTOWN — Executives at the Pittsburgh Regional Healthcare Initiative say they are moving ahead in their efforts to revamp how the region delivers health care.

The initiative, formed in 1999, is a collaborative effort of about 30 hospitals, as well as a number of physicians, insurers and major employers. The participants have chosen a lofty goal: achieving perfect patient care in the six-county region.

To reach that, the initiative is working toward lowering the incidence of medication errors and hospital-acquired infections to zero and perfecting clinical outcomes in four areas, including invasive cardiac procedures, and hip and knee replacement surgery.

"The initiative's progress has been excellent," said Martin McGuinn, chairman and CEO of Mellon Financial Corp., at an annual meeting for the initiative that was held at the Duquesne Club Tuesday. Mr. McGuinn and James Rohr, CEO of PNC Financial Services Group, are co-chairs of one of the initiative's leadership groups.

Cited among the examples of progress made during 2001 were:

• The agreement by 29 hospitals to establish baseline bloodstream infection rates at intensive care units and to share that data. Precise tracking of hospital-acquired infections is seen as the first step toward learning how to prevent them.

• The decision by 10 of 30 hospitals to use one system to collect and share data on medication errors. The initiative hopes to have remaining hospitals online by March 2002. Dr. Joann Narduzzi, executive vice president of medical affairs at Mercy Health System, said, that only five to 10 percent of medication errors are reported nationwide. Mercy bought the online tracking system a year ago and instituted a hotline system for error reporting that was non-punitive, so professionals would be more likely to share information.

Dr. Narduzzi said that as of April, the number of medication errors reported within the system doubled. She stressed that the figures do not mean that twice as many errors were made, only that they were reported.

• The initiative's cardiology group has begun a project to cut mortality rates associated with heart bypass surgery by 25 percent. Dr. Rick Shannon, chair of Allegheny General Hospital's department of medicine, said the group has identified five relatively simple measures that can help achieve that.

• The growing use of Toyota Production System techniques to simplify health care's complex delivery system to patients. UPMC South Side and UPMC Presbyterian, for example, have revamped portions of their pharmacy operations to avoid excessive drug inventories and "stock outs," when a medication cabinet on a nursing floor is out of a medicine that a patient needs. UPMC South Side has cut the incidence of "stock outs" by 80 percent.

MS. ROBINET may be contacted at jrobinet@bizjournals.com.

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Clinical Initiatives

Jon Lloyd, M.D.
PRHI Medical Advisor
412.594.2566
lloyd@jhf.org

Geoff Webster
PRHI AssociateDirector
412.456.0973
websterchc@stargate.net

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.

Cardiac Forum advances data registry

has already reduced its regional mortality rates by over 24% through consistent use of five strategies:

1. Uniform use of aspirin pre-operatively.

2. Uniform use of adequate doses of beta-blockers peri-operatively to lower heart rate.

3. Uniform use of the left interior mammary artery (LIMA) as the bypass conduit of choice.

4. Avoidance of dilution anemia during the bypass surgery, a condition where blood hematocrit levels fall below normal. (NNE data suggest that dilution anemia occurs more often in women, and may be one factor associated with increased bypass surgery mortality for them. PRHI's data will assist further inquiry in this area.)

5. Pre-operative identification of those at risk for low cardiac output after surgery, and early intervention.

"By sharing their knowledge at our Cardiac Forum, NNE really galvanized us. We already have task forces in certain cardiac surgery centers ready to implement these principles by January," said Rick Shannon, MD, Chairman, Department of Medicine, Allegheny General Hospital; Cardiologist; and Co-chair of PRHI Clinical Improvement.

By next October, PRHI cardiac teams hope to document through their Cardiac Data Registry a significant decrease in mortality following cardiac bypass surgery.

"We hope to achieve in a few years what took 15 years for NNE to do. We are now the beneficiaries of their years of fine work, which allows us to move ahead quickly," said Jon Lloyd, MD, General Surgeon, PRHI Medical Advisor, and Chair of PRHI Clinical Improvement.

The cardiac surgeons' collaboration with NNE demonstrates how learning can be

Watch for the Diabetes Report in December

leveraged from community to community, accelerating learning and, most important, measurably benefiting patients.

> "BY SHARING THEIR KNOWLEDGE AT OUR CARDIAC FORUM, THE NORTHERN NEW ENGLAND GROUP REALLY GALVANIZED US."
>
> -RICHARD SHANNON, M.D. CHAIRMAN, DEPARTMENT OF MEDICINE, *AGH*

Patient Safety Programs

Ed Harrison
Director, Patient Safety
412.594.2584
harrison@jhf.org

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

Kick-off for new grant

SHARING INFORMATION *AS A COMMUNITY* IS CENTRAL TO PRHI'S VISION OF A REGIONAL LEARNING NETWORK.

PRHI partners from all over the United States convened in Pittsburgh November 6 to focus on PRHI patient safety activities. Representatives came from the:

♦ Centers for Disease Control and Prevention (CDC) in Atlanta.
♦ U.S. Pharmacopoeia in Washington, D.C.
♦ Rand Corporation of Santa Monica, California and Pittsburgh.
♦ Purdue University of West Lafayette, Indiana.
♦ University of Pittsburgh Schools of Medicine and Pharmacy.
♦ Carnegie-Mellon University.

Recently, the PRHI coalition was awarded a $4.8 million grant from the U.S. Department of Health and Human Services Agency for Healthcare Research and Quality (AHRQ). Over the next three years, the grant will help PRHI establish a learning model and a feedback system, maximizing our collective efforts to eliminate medication errors and hospital-acquired infections.

Thirty hospitals in our 6-county region have agreed to use common reporting tools: the MedMARx medication error reporting system from U.S. Pharmacopoeia; and a variation of the National Nosocomial Infection Surveillance (NNIS) system offered by the CDC. The hospitals are at varying levels of implementation, with many already providing data. By Spring, all hospitals plan to have their systems up and running.

AHRQ funding will enable PRHI to hire five field employees to coordinate the work of hospitals region by region. Leading these smaller, more nimble groups in their pursuit of patient safety, the field employees will:

♦ Help partner hospitals implement the reporting systems and educate staff on their use.
♦ Facilitate learning among hospitals, enabling them to work together toward continuous improvement in safety and performance.
♦ Gather information for the ongoing evaluation of the tools and the overall impact of this unique community initiative.

Two additional PRHI employees will help coordinate the work in the field.

The five field employees will have "home bases" at hospitals in each region for the three-year duration of the agreement.

Breakthrough

♦ With new AHRQ funding, PRHI will support and refine the use of these reporting systems.

Sharing information on medication errors and hospital-acquired infections *as a community* is a core part of PRHI's vision of a regional learning network. Thanks to the unique collaboration of dozens of area hospitals, this vision is now materializing.

Center for Shared Learning

Vickie Pisowicz
412.594.2589
pisowicz@jhf.org

> 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.

Learning lines at West Penn Allegheny: one now, one later

The Western Pennsylvania Hospital has made a commitment to start a learning line that will focus on pre-operative care for patients undergoing total hip replacement or total knee replacement surgery. Tony DiGioia, MD, will be the physician leader in this effort, which is designed to bring together two PRHI initiatives: the Orthopedic Working Group and the Toyota Production System. Gloria Teichman, RN, will be the full-time team leader on the learning line.
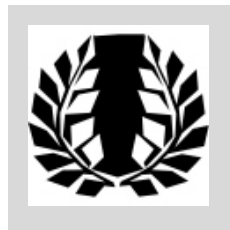
Starting a learning line requires preparation and specific commitments from the frontline workers to the management. At West Penn, the leadership for the learning line has attended the TPS information session, and the executive management team has been very helpful in providing the needed support.

Allegheny General Hospital, under the clinical leadership of Rick Shannon, MD, and George Magovern, Jr., MD, has begun preliminary work toward establishing a second learning line in the West Penn Allegheny Health System.

The focus of the AGH line will be the post-operative cardiovascular surgery patient. Again, findings from the PRHI clinical initiative in cardiac surgery will be applied at the point of patient care through a TPS learning line. (See Page 1, *Cardiac Forum inspires*.) The goal is to start this cardiac learning line in April 2002.

Leadership Commitments Required to Establish a Learning Line

- No other consultants or improvement directives on the learning line.
- Full-time Team Leader, dedicated solely to problem-solving.
- Weekly involvement "at the floor" by members of both the supply chain (patient, nurse, doctor) *and* help chain (supervisor, administrator, president, CEO, trustee).
- Additional partners (insurer, purchaser, etc.) who are pulled in as problems occur, are committed to experimenting with system changes.
- No lay-offs as a result of productivity improvements.
- Site remains open for others setting up learning lines to come and learn.

Calendar at a glance, December 2001*

Tony Kelly, Administrative Coordinator
412.594.2567, *kelly@jhf.org*

| Dec 4	Nosocomial Infections Work Group	8am—noon
Dec 10	PRHI Co-Chairs' Lunch	12-1:30 pm
	Patient Safety Executive Committee	2-3:30 pm
Dec 11	ADEAC Advisory Committee Meeting	3-4:30 pm
	Center for Shared Learning Information Session	6-9 pm
Dec 20	Buying Healthcare Value	2:30-4 pm
	Clinical Advisory Committee—Location tba	6-8 pm

all meetings at JHF offices unless otherwise noted

CONTACT INFORMATION

KAREN WOLK FEINSTEIN, PhD
PRHI CHAIR
412.594-2555
FEINSTEIN@JHF.ORG

KEN SEGEL
PRHI DIRECTOR
412.594-2558
SEGEL@JHF.ORG
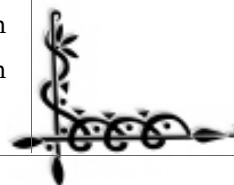
PRHI Partner Spotlight
Patient Safety Committee — Nosocomial Infection Working Group

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

Ms. Sherri L. Albright, RN
Infection Control
Westmoreland Regional Hospital

Ms. Lisa D'Amico
Group Manager, Quality
Westmoreland Regional Hospital

Ms. Renee Volpe
Infection Control
The Medical Center of Beaver

Ms. Margaret Adams
Infection Control
UPMC Altoona

Ms. Pamela Adomaitis, RN
Manager
UPMC South Side

Ms. Jocelyn Benes, RN
Executive Director
Quality and Care
Children's Hospital of Pittsburgh

Mr. John Bennett, RN
Infection Control Coordinator
Jefferson Hospital

Dr. Erick Bergquist, MD
Hospital Epidemiologist
Latrobe Area Hospital

Ms. Mary Blank, MPH.
Infection Control Manager
West Penn Hospital

Dr. Marian Block, MD
Medical Director for Quality
West Penn Hospital

Ms. Linda Boody, RN
Infection Control Coordinator
Forbes Regional Hospital

Dr. Denise Cardo, MD
Centers for Disease Control
and Prevention

Ms. Pat Clark
Infection Control
UPMC Horizon

Dr. Stephen Colodny, MD
Pittsburgh Infectious Disease

Ms. C. Marie Dalton
Infection Control
UPMC Rehab Institute

Ms. Adrianne Farley, RN
Infection Control Nurse
Children's Hospital of Pittsburgh

Ms. Jean Fleming
Infection Control Practitioner
Mercy Hospital of Pittsburgh

Dr. Stanley Geyer, MD
Pathology Department
West Penn Hospital

Dr. Michael Green, MD
Children's Hospital of Pittsburgh

Ms. Patty Harris
Infection Control
UPMC Shadyside

Dr. Lee Harrison, MD
University Infectious Disease Service

Ms. Cheryl Herbert, RN
Director, Infection Control
Allegheny General Hospital

Ms. Barbara Hildenbrand
Infection Control
UPMC Lee Regional

Dr. Mark Hofstetter, MD
Director of Infectious Disease
Cannonsburg General Hospital

Ms. Jill Hostetler, RN
Infection Control
Frick Hospital

Ms. Debbie Hullihen
Infection Control
UPMC Bedford Memorial

Ms. Donna Inglot, RN
Director of Infection Control
UPMC McKeesport

Ms. Sharon Jacobs
Infection Control Practitioner
St. Clair Hospital

Dr. John Jernigan, MD
Medical Epidemiologist
Centers for Disease Control and
Prevention

Dr. John Kokalus, MD
University Center

Ms. Jeannine Konzier, RN
Institute for Performance
Improvement
UPMC Health System

Ms. April Langford
Executive Director
Medical Management Division
UPMC Health System

Ms. Dee Lauze, RN
Cannonsburg General Hospital

Ms. Kathy Liberatore, RN
Infection Control Practitioner
Monongahela Valley Hospital

Ms. Marge Lubarsky
Director, Infection Control
St. Francis Medical Center

Dr. Thomas Lundquist, MD
Director, Dept. of Performance
Improvement
Allegheny General Hospital

Ms. Judith McPherson
Infection Control
UPMC Beaver

Dr, Marian Michaels, MD
Children's Hospital of Pittsburgh

Dr. Carlene Muto, MD
Director of Infection Control
UPMC Presbyterian

Ms. Fran Nagle

Dr. JoAnn Nardizzi, MD
Executive Vice President
Pittsburgh Mercy Health System

Ms. Kathleen Posey
Infection Control Coordinator
UPMC Presbyterian

Dr. Nalini Rao, MD
Medical Director, Infection Control
Monongahela Valley Hospital

Dr. Joseph Romano, MD
Chairman
Infection Control Committee
St. Francis Medical Center

Dr. Jennifer Rudin, MD
Chair, Infection Control
Forbes Regional Hospital

Ms. Debbie Sauro
Infection Control
UPMC Magee

Dr. Mark Schmidhofer, MD
Director
UPMC Institute for Performance
Improvement

Ms. Jane Shuck, RN
Director, Infection Control
Uniontown Hospital

Dr. Carl Sirio, MD
Associate Professor
University of Pittsburgh School of
Medicine

Ms. Sonja Smith
Infection Control
UPMC St. Margaret

Dr. Steven L. Solomon, MD
Chief, Healthcare Outcomes Branch
Centers for Disease Control
and Prevention

Ms. Carol Soltis
Infection Control
UPMC Braddock

Ms. Barbara Steen, RN
Infection Control
Ohio Valley General Hospital

Dr. David Steffenson, MD

Ms. Sharon Stephens
Infection Control Coordinator
Butler Area Hospital

Ms. Verne Taresovic
Infection Control
UPMC Passavant

Dr. David Weinbaum, MD
Infectious Disease Associates

Dr. Virginia Banks, MD
Director, Infectious Diseases
Allegheny General Hospital

Ms. Marcia Plafreyman
Infection Control
Washington Hospital

Ms. Jane Shuck, RN
Infection Control
Uniontown Hospital

Ms. Sandy Silvestri, RN
Infection Control Coordinator
Sewickley valley Hospital

Dr. Clifford Waldman, MD
Medical Director
HealthAmerica

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		
Heritage Valley Health System, Inc.*					
Sewickley Valley Hospital	✓				
Medical Center—Beaver	✓				
Latrobe Area Hospital*					
Lifecare Hospitals Pittsburgh, Inc.					
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	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, cont.					
Lee R...	✓	✓	✓	✓	
...	✓	✓			
		✓	✓		
		✓	✓		
		✓	✓		
		✓	✓		
...e			✓		
			✓		
			✓		
			✓		
			✓		
...eral	✓	✓	✓	✓	✓
		✓	✓	✓	
S... ...ral					
West... ...spital	✓	✓	✓	✓	
Westmoreland Health System					
Frick Hospital	✓	✓	✓	✓	✓
Westmoreland Regional Hospital	✓	✓	✓	✓	✓

Breakthrough!

Pittsburgh becomes the first region in the country where competing hospitals collaborate to share data on medication errors and hospital-acquired infections. See Page 1.

- All requested infection control data are being submitted.
- **Thirteen hospitals are submitting MedMARx data; we still have 17 to go!**

* *Collaborating w/ national VHA Patient Safety Initiatives*　　　🏇 *Fulfilled*　　　🏇 *In progress*