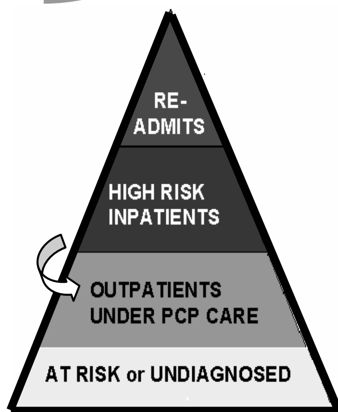
Pittsburgh Regional Healthcare Initiative

PRHI Executive Summary

Diabetes and depression

Combating an epidemic with PHIN

PRHI coalition partners are targeting depression and diabetes in our region. What's the connection between these two seemingly unrelated conditions? Both are chronic diseases, usually in outpatients. Both affect a large and increasing percentage of the population in Southwestern Pennsylvania. And both are widely under-treated.



The Diabetes and Depression Working Groups are working to improve care among all populations illustrated in the pyramid, left. ***The group decided to concentrate on people in the third tier: patients who have been diagnosed with depression or diabetes, and are under a physician's care—before complications arise.***

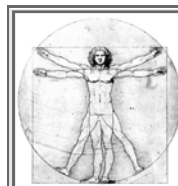
The hypothesis: when practitioners and patients have up-to-the-minute patient information when and where needed, most complications and unnecessary hospitalizations related to depression and diabetes can be eliminated.

How it works now

Currently, physician offices have to collect their own data on diabetic and depressed patients, which arrive at different times from many sources (commercial health plans, Medicare, Medicaid and multiple laboratories). The paper reports must then be filed in time for a patient visit, at which time the patient learns the results. The current system's inefficiencies conspire against physicians' ability to provide proper care to every patient, every time.

PRHI partners looked for ways to get timely information into physicians' hands through a secure

Continued, page 5



Diabetes and Depression Resource Showcase

Monday, September 15 | **9am-2pm** | **PPG Wintergarden**

Details, Page 6

Ranga Ramanujam, PhD, Guest Columnist

Leaders who transform: *clarity, courage, commitment*

SEPTEMBER 2003

Despite the best intentions and efforts, most patient safety improvement efforts end up relegated to a stack of "promising beginnings" or "interesting ideas." Translating such initiatives into sustained, effective ways of doing business requires healthcare organizations to transform themselves into learning organizations—where caregivers possess capabilities, opportunities, and incentives for solving problems at the point of care. Absent this change, even the best-conceived clinical and technical "solutions" will be local and temporary. Transforming tradition-bound health care organizations calls for fundamentally rethinking how organizations change, and the role of leaders in making this happen.

Leadership Qualities

More than resources, more than technology, transformational change requires leadership qualities as timeless as medicine itself ~ *clarity*, *courage*, and *commitment*. Clarity of purpose means never losing sight of the irreducible essence of health care—patients and providers at the point of care.

But just stating these values clearly is not sufficient. Everyday behaviors, decisions, and

Continued, page 7

Inside:

Antibiotic-resistant infections and you	2
Diabetes & Depression Resource Showcase	5
Calendar, Contact	8

An American in Amsterdam

Antibiotic-resistant infections and you

You're vacationing in Amsterdam when the pain hits. Presenting yourself at the local hospital, you're asked about your medical history. Then you tell them you're an American, and were recently hospitalized back home. That changes everything.

Parts of your body are swabbed and sent for laboratory analysis. You are ushered into an isolation room, and every healthcare worker who enters your room wears full protective garb—gloves, gowns, caps and nose-face masks—for every encounter with you. Only after two days, when the lab analysis comes back negative, are you moved to a regular, semi-private room.

Question: Since when did being an American become such an acute risk factor that it automatically sent you to an isolation room in a foreign hospital?

Answer: Since the Netherlands, along with several other countries, aggressively pursue and control methicillin-resistant *Staphylococcus aureus* (MRSA), an antibiotic-resistant infection, in their hospitals.

What is MRSA?

MRSA was first seen in hospital outbreaks in eastern Australian in the late 1970s. By the 1980s, MRSA had spread throughout the world. Today, stark differences in healthcare practices have led to stark differences in MRSA rates:

In the Netherlands, Scandinavia and western Australia, MRSA is uncommon, with sporadic outbreaks that are quickly contained.

In Belgium and France, countries with high prevalence, MRSA has been stabilized and confined. In Paris hospitals, prevalence went from 55% in 1993 to 25% in 2002.

In the United States, more than 50% of *Staph* infections are now methicillin resistant. The U.S. holds the dubious distinction of having the world's second highest MRSA rate. (Only Japan has more.)

Why is MRSA so bad?

According to a series last year in the *Chicago Tribune*, healthcare-acquired infections affect 2.2 million people in the U.S. each year, cause 100,000 deaths, and add about $1 billion in costs. MRSA infections are on the rise, and are associated with increased mortality, length of stay, hospital costs, and resistance to the one antibiotic left in the arsenal: vancomycin.

How is MRSA spread?

MRSA is spread primarily through transmission from one patient to another via the hands of healthcare workers. While frequent antibiotic use can make patients more susceptible to resistant organisms, simple physical contact is the more prevalent method of spread.

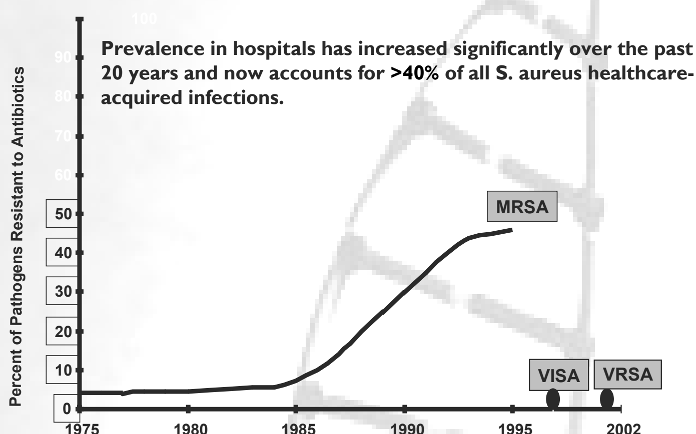
Active infections are just the tip of the iceberg. People can be colonized with MRSA—that is, have the organism present in their bodies but show no symptoms—and spread it to others. (And once colonized, up to 60% of people will develop an active MRSA infection.)

All people with MRSA—infected or colonized—must be isolated, and all who come in contact with them must use precautions such as gloves, gowns and masks. The items used in the care of these patients, such as blood pressure cuffs, thermometers and stethoscopes, must be decontaminated or disposed of.

How can MRSA be controlled?

A task force from the Society for Healthcare Epidemiology of America (SHEA) recently proposed a new guideline for preventing in-hospital transmission of resistant organisms. (See sidebar.) Lead author of the report is Carlene Muto, MD, MS, Director of Infection Control at UPMC Presbyterian, and Co-chair of PRHI's Infection Control Advisory Committee. Among the SHEA task force recommendations:

Increasing MRSA Prevalence in the US – Where we are



Thronsberry C. NNIS. 38th ICAAC.1998; San Diego, Calif; Abstract E22; *MMWR Morb Mortal Wkly Rep.* 1997;46:624-636.

- ***Surveillance cultures of incoming patients deemed to be at risk, and periodic culturing during hospital stay.*** As in the Netherlands, SHEA guidelines call for healthcare workers to be screened periodically.
- ***Isolation*** of all patients known to be infected or colonized. Isolation of all high-risk patients until lab work on the swabs either confirms or rules out MRSA infection (usually 48 hours).
- ***100% hand hygiene.*** Healthcare workers disinfect hands upon entry and exit for each patient encounter, whether gloving or not.
- ***Dedicate the use of non-critical equipment*** to a single patient or cohort of patients who have the pathogen. If use of common equipment is unavoidable, adequately clean and disinfect between uses.
- ***Housekeeping protocol.*** Special attention to disinfection of surfaces includes active damp scrubbing following each patient discharge.
- ***De-colonization.*** Treatment, as deemed appropriate, for patients and workers, with followup surveillance.
- ***Appropriate antibiotic use.***

Why can't we ...

Can the United States defeat MRSA? Precedent exists in the Netherlands and Scandinavia, countries where leadership and national will coincided. In translating well-known precautions into action, the healthcare establishment in those countries have been able to bring the epidemic under control. Vigilant surveillance continues.

What is PRHI's role?

PRHI has been working in conjunction with the CDC and the staff on a post-surgical unit at the Veterans' Administration Pittsburgh Health System, in an effort to reduce transmission of MRSA. A plethora of improvements has followed—from improving access to supplies to cleaning wheelchairs—that provide staff with more time for hand sanitation.

PRHI's Infection Control Advisory Committee (ICAC) continues to pursue ways to reduce MRSA transmission across the region, including a regional conference (see below).

Recent Publications

"SHEA Guideline for Preventing Nosocomial Transmission of Multidrug-Resistant Strains of Staphylococcus aureus and Enterococcus," Muto, Jernigan, Ostrowsky, Richet, Jarvis, Boyce, and Farr. ***Infection Control and Hospital Epidemiology****, May 2003 Infect Control Hosp Epidemiol 2003;24:362-386.*

"Pittsburgh Regional Healthcare Initiative: A Systems Approach For Achieving Perfect Patient Care," Sirio, Segel, Keyser, Harrison, Lloyd, Weber, Muto, Webster, Pisowicz, and Feinstein. ***Health Affairs****, Volume 22, Number 5, September 2003.*

*PRHI * CDC * U-P School of Medicine * Center for Continuing Education in the Health Sciences present*

It Takes a Region:

Strategies for Preventing Nosocomial Transmission of MRSA

Thursday, October 2, 2003: 4 pm

Registration & refreshments: 3 pm
McGovern Conference Center
WPAHS Allegheny General Hospital
320 East North Avenue

Further Information
Patricia Zurawski, PRHI
412-535-0292 x103
pzurawski@prhi.org

Who should attend?

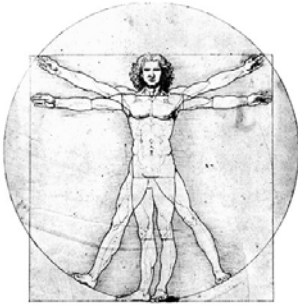
- *Infectious disease personnel*
- *Physician intensivists*
- *Physician administrators*
- *Directors of microbiology*
- *Chief laboratory officers*
- *Nurse managers*
- *Housekeeping directors*
- *Risk managers*
- *Antibiotic management practitioners*

It is our view that complex systems almost always fail in complex ways, and we believe it would be wrong to reduce the complexities and weaknesses associated with these systems to some simple explanation.

Too often, accident investigations blame a failure only on the last step in a complex process, when a more comprehensive understanding of that process could reveal that earlier steps might be equally or even more culpable.

—From the final report of the Columbia Accident Investigation Board, August 26, 2003

Sponsors: Pittsburgh Regional Healthcare Initiative, PPG Industries, Occupational and Environmental Health Foundation, Pfizer



Diabetes and Depression Resource Showcase

Monday, September 15 10 am-2pm PPG Wintergarden

Kickoff press conference features Occupational and Environmental Health Award for recognition of depression in the workplace. Spokespersons will include:

- **Paul O'Neill**, PRHI leader, former Treasury Secretary
- **Raymond LeBoeuf**, CEO of PPG Industries, Inc.
- **Alberto Colombi**, **MD**, Medical Director of PPG Industries, Inc.

- **Information booths**: employers, health plans, insurers, educational institutions and community organizations exhibit services available to combat diabetes and depression, and their devastating complications.
- ***Free*** diabetes and depression screening.
- PRHI unveils the *Pittsburgh Health Information Network*, aimed at making our region a **Perfect Care Zone** for diabetes and depression.

Aetna US Healthcare
ALCOA
Allegheny General Hospital- Diabetes
Allegheny General Hospital- Psychiatry
Allegheny Trail Alliance
American Diabetes Association
Bayer Diagnostics
Carnegie Library of Pittsburgh
Center for Minority Health- Graduate School of Public Health- University of Pittsburgh
Childrens Hospital of Pittsburgh
Cognitive Dynamic Therapy Association
Consumer Health Coalition
CONTACT Pittsburgh
Gateway Health Plan
Healthy Hearts and Souls
Highmark Blues on Call
Highmark Health Place
International Society for Bi-Polar Disorders
Institute for Research, Education and Training in Addictions (IRETA)
LEAD Pittsburgh
Magellan Behavioral Health
Magellan EAP
Mental Health Association of Allegheny County
Mercy Behavioral Health
Mercy Diabetes Program
Monongahela Valley Hospital
National Alliance of the Mentally Ill (NAMI) Southwestern PA
Pittsburgh Regional Healthcare Initiative
Quality Insight of Pittsburgh
University of Pittsburgh Diabetes Institute
Value Options Behavioral Health
UPMC Behavioral Health/ WPIC
UPMC Health Plan
UPMC Health Sciences Library
The Western Pennsylvania Hospital
Western Psychiatric Institute and Clinic
Working Hearts

Who should attend?

- ***Any person*** who has diabetes or depression, or who cares about such a person.
- ***Any employer or human resource professional*** who has an interest in helping connect employees with the help they need.
- ***Any medical professional*** who wants to learn how the *Pittsburgh Health Information Network* will make it easier to care for patients with these chronic diseases.
- ***Any member of the media*** interested in helping to inform the public about hopeful developments in Pittsburgh's battle against diabetes and depression.

Questions?

Contact Naida Grunden, *ngrunden@prhi.org*, 412-535-0292, x 114 or Danielle Evans, *devans@prhi.org*, x118

Combating an epidemic with PHIN — from page 1

internet-based connection. The resulting model, called the Pittsburgh Health Information Network (or PHIN—pronounced "fin"), is similar to models in Utah (UHIN), Delaware (DHIN) and Santa Barbara County, California (SBCCDE).

It takes a village: *Collaboration*

PRHI partners addressing this challenge included all four of Pittsburgh's commercial health plans, all three of Pittsburgh's Medicaid health plans, and Pittsburgh's two largest commercial labs. Together with numerous healthcare professionals, they proposed to create a database to gather relevant claims data from health plans ***and*** results from lab tests and combine them into a simple, one-page document for each patient. This information could then be pulled by the physician at the point of care through a secure internet connection.

Information where, when needed

The data could generate a list of chronic disease patients or an individual patient history of basic care received for diabetes or depression. This will:

- ✧ Allow physicians to keep better track of their patients through the list/registry function.
- ✧ Create opportunities for better preventive care.
- ✧ Help reinforce a minimum standard of care that has been established for depression and diabetes through evidence-based, nationally recognized measures.
- ✧ Allow patients to access their data as a step toward becoming more educated and active in their own disease management.

Challenging what's possible

PRHI partners studied ways to make the information readily available securely online. Questions and perceived problems abounded. What entity could act as a neutral, trusted repository for this information? Under strict new HIPAA guidelines, would such a data resource be legal? Could it be confidential enough, yet allow physicians and patients appropriate access? Could it work technically, and still be easy to use?

Neutral repository: *Quality Insights*

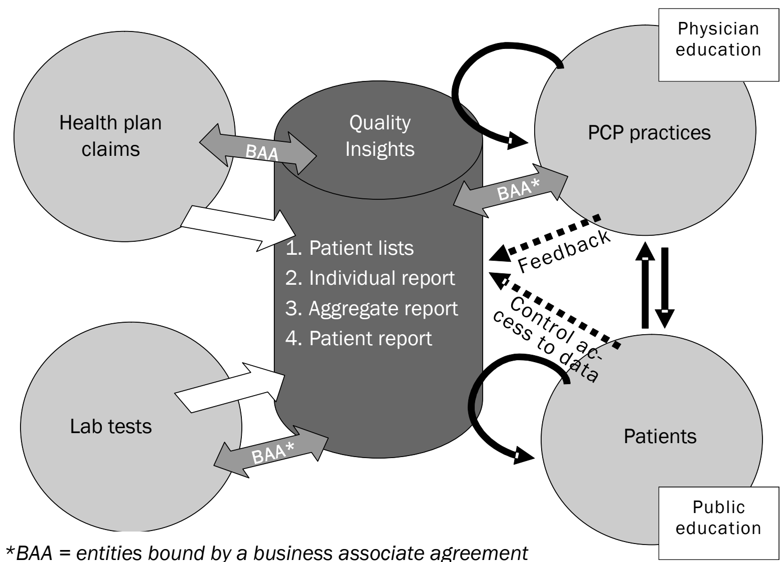
PRHI discovered a powerful partner in "Quality Insights," our regional Quality Improvement Organization (QIO) reporting to the federal Center for Medicare and Medicaid Services (CMS). They bring their considerable data management experience and infrastructure to bear on this project as part of their own mandate to improve care for diabetes. The QIO will act as a neutral platform for collecting and collating data from all other sources.

Legal and technical challenges

To systematically address the daunting ***legal*** and ***technical*** concerns, PRHI formed two task forces made up of representatives from health plans, labs, the QIO and physician practices. The legal team tackled such questions as:

1. **What kind of business agreement can be used?**

Continued, next page



**BAA = entities bound by a business associate agreement*

With PHIN, claims data from health plans and lab values from diagnostic labs flow into the QIO database. These data can help physicians by providing the following information about the patients in their practice:

- ✧ Lists of all diabetic and/or depressed patients
- ✧ Aggregate reports, allowing physicians to benchmark against regional performance
- ✧ For diabetic patients:
  - ∗ Dates of last visit
  - ∗ Dates, values of hgb A1C tests
  - ∗ Dates, values of lipid profiles
  - ∗ Dates of dilated retinal exams
- ✧ For depressed patients:
  - ∗ Dates of follow-up visits
  - ∗ Dates when prescriptions for antidepressant medications are filled or refilled

The QIO will add Medicare data and build a comprehensive regional database. Rather than pushing yet another report to the physician's desk, physicians could draw data as needed through a website.

ALL information will be available in a common format—no matter which plan or lab it came from.

And it's two-way: physicians can amend and update data so it becomes more accurate with each use.

Patients will also have access to their own data.

Combating an epidemic with PHIN — from page 5

2. Will physicians' current privacy statements for patients need to be modified?
3. Under what conditions can data be shared across multiple physicians?
4. What are the parameters for sharing mental health data? Are extra safeguards needed?
5. Will physicians be liable for using PHIN data? Conversely, if the PHIN database creates a new standard of care, will physicians be liable for not using it?

We didn't respond to tuberculosis one case at a time. We didn't leave it up to each individual doctor to handle it. Diabetes and depression are a community crisis, and they require a community response.

—Bruce Block, MD Director, UPMC Shadyside Family Health Center

Perhaps the legal team's most surprising finding was the extent to which the dreaded HIPAA regulations actually help efforts like PHIN. HIPAA has actually **reduced** liability by establishing clear standards of protection and an industry standard of due care. Physicians are **already** liable for providing a minimum standard of care. PHIN is designed to help them provide that care more easily and effectively.

The technical team addressed questions like these:

1. How will we handle data transmission?
2. Can data be posted quickly enough to be useful to physicians?
3. Can the QIO handle varying patient identifier systems from different organizations?
4. How can the QIO ensure that only physician practices who have a relationship with a patient can access that patient's data?
5. How will patient history follow a patient across physicians?

Partner institutions conducted research that helped to navigate these challenges as well.

If you would like a copy of the summary document, "Improving Care for People with Diabetes and Depression," contact Tania Lyon, PRHI's Chronic Disease Coordinator, at 412-535-0292, ext 107, (tlyon@prhi.org).

Pilot testing begins

Eleven physicians have agreed to act as a pilot group to test the database in its initial phases. A dozen major Pittsburgh employers, offering health coverage to 90,000 employees and dependents, are encouraging physicians in their health plans to use this resource.

In addition, because both depression and diabetes disproportionately affect lower-income and certain racial groups, we are recruiting the participation of physicians serving those populations (i.e. via Medicaid health plans and physician groups like the Gateway Medical Society).

Some commercial health plans have developed their own programs to improve the care of patients in their systems (i.e., our partner Highmark's Smart Registry). This project helps to ensure that all patients, no matter what their coverage, can have their chronic disease data made easily available to their physicians for improved care.

What if this works?

Physicians well know how to treat diabetes and depression effectively. Yet our region suffers excruciatingly high rates of almost- always preventable complications. If PHIN can be made to work, getting physicians and patients up-to-the-minute healthcare information, proper care can be given to every patient, at every visit. From this starting point, Pittsburgh can become the Perfect Care Zone, where 100% of diabetic and depressed patients routinely receive the care they need. Southwestern Pennsylvania could become the first place in the country to virtually eliminate the complications of diabetes and depression—a development that could have national implications. ঌ

Leaders who transform: clarity, courage, commitment

Ranga Ramanujam, PhD — **from page 1**

routines need to be infused with them. Initiating this process requires courage, since leaders must base their decisions on non-traditional premises—advocating simple and strong solutions rather than "big" solutions, initiating change with insufficient evidence and with a view to creating evidence.

While clarity and courage initiate change, only sustained commitment can make change take root. Change in complex systems is non-linear. Long periods of little discernible improvement give way to sudden dramatic transformations. These dynamics can play out only if there is unrelenting and uncompromising commitment to the transformation process.

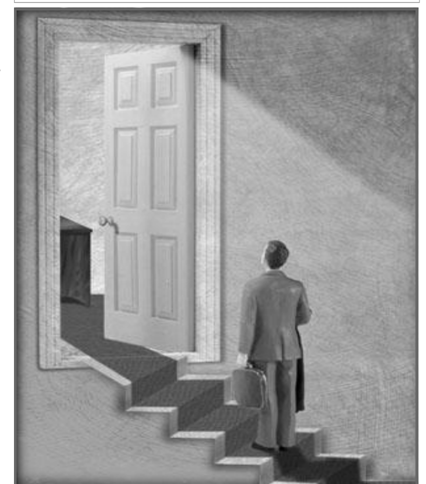
Two out of three won't do. Courage and commitment can bring about change. But without clarity, change may not serve the core values. Clarity and courage will launch ambitious efforts. But without commitment, they will be short-lived and disappointing. Clarity and commitment will generate a sustained search for solutions. But without courage, the gulf will widen between what is said and what is done. Courage, clarity and commitment: all three are necessary to implement change.

The Leader's Role

What is the leader's role in transforming an organization? Useful pointers come from of other organizations that have undertaken fundamental change:

1. **The leader's primary role is that of a designer**. Leaders play a variety of important roles such as decision maker, motivator, etc. But in building a learning organization, their most important job is to design a way to make it easy for employees to learn and difficult for them not to. Often learning is left to chance and individual choice. The design of a learning organization should address both the "hard" stuff such as structure and technology as well as the "soft" stuff such as shared values and culture.
2. **Change efforts should be targeted at attitudes, ideas and behaviors.** Attitudes and ideas form the foundation for change, but ideas must translate into behavior. Talk of "good communication" and "blame-free culture" does not create them: they must be actively, consistently demonstrated by top leaders. Attitudes improve and ideas emerge when leaders help people change their task-related behaviors (by redesigning their work), and show them how to solve longstanding problems in their jobs. The leader's task is to initiate change, ensuring that this change is tightly linked to operational problems at the point of care.
3. **Transformation in complex organizations requires simple and strong solutions, not "big" solutions.** Healthcare organizations are complex. They encompass an intricate network of providers and patients interacting across multiple locations and at different times. Planning for every situation is impossible. Transformation depends on getting people throughout the system to make choices and solve problems based on a core set of incontestable and unchanging values. The task of the leader is to accelerate the development of these shared values so that they become the premises for decision making and problem solving throughout the system. This leads back to design, which must reflect the values.

More than resources, more than technology, implementing transformational change requires leadership qualities as timeless as medicine itself -- clarity, courage, and commitment.



Ranga Ramanujam, PhD, is an assistant professor of management at Purdue University's Krannert School of Business, where he teaches courses in organizational behavior and change management. His research examines the causes and consequences of errors in organizations. For PRHI, Dr. Ramanujam is a member of the evaluation team for the AHRQ grant on patient safety involving PRHI member institutions.

Diabetes and Depression Resource Showcase

September 15, 10am-2pm
PPG Wintergarden

- ✧ Kickoff press conference featuring Paul O'Neill and PPG CEO, Raymond LeBoeuf
- ✧ How PRHI partners—businesses, providers and plans—plan to improve chronic care
- ✧ Community resources that are ready to help
- ✧ Consumers, purchasers, healthcare workers urged to attend!

Pittsburgh Regional Healthcare Initiative

650 Smithfield Street, Suite 2150
Pittsburgh, PA 15222

Calendar, September 2003

Tuesday, September 2	Infection Control Advisory Committee Centre City Tower, 5th Floor	8—10 a
	OB Working Group PRHI offices, Centre City Tower, 2150	5–7p
Mon, Sept 8—Thurs, Sept 11	Perfecting Patient Care University*	7:30a—5 p
Tuesday, September 9	Leadership Obligation Group Location *tba*	2—4p
	Medication Safety Advisory Committee PRHI offices, Centre City Tower, 2150	3—5 p
Mon, September 15	***Depression and Diabetes Resource Showcase*** PPG Wintergarden (see address panel)	10 a—2p
	Diabetes and Depression Work Groups	5—7p
Tues, September 16	Perfecting Patient Care Information Session* PRHI offices, Centre City Tower, 2150	6—9p
Weds, September 17	Hospital Learning Line visit* Allegheny General Hospital	8a—12p
Thurs, September 18	Buying Healthcare Value Committee Jewish Healthcare Foundation, Suite 2300	2:30—4 p
Weds, September 24	Board of Directors Location *tba*	4–6p

**For further information call Helen Adamasko, 412-535-0292, ext. 100*

Contact Us

Phone: 412-535-0292
Fax: 412-535-0295

Ken Segel, PRHI Director
412-535-0292, ext. 104
ksegel@prhi.org

PRHI Executive Summary is also posted monthly at ***www.prhi.org***
Please direct newsletter inquiries to:
Naida Grunden,
Director of Communications
412-535-0292, ext. 114
ngrunden@prhi.org