PITTSBURGH REGIONAL HEALTHCARE INITIATIVE

PRHI SCORECARD 2003

FEBRUARY 2003

INSIDE

PRHI GOALS

- **Zero medication errors**
- **Zero hospital-acquired infections**
- **The world's best patient outcomes in cardiac bypass surgery, diabetes, depression, obstetrics, and hip and knee replacement**

REACHING FOR THE LARGER GOAL

PRHI was created when a broad cross-section of healthcare stakeholders throughout the region signed a commitment to achieve these goals:

- *Zero* medication errors.
- *Zero* hospital-acquired infections.
- *Perfect outcomes* in targeted clinical areas: cardiac, obstetrics, diabetes, depression, and orthopedics.

Experience in other industries shows that with the right ideas at work, institutions can expect 40-50% reductions each year toward the goal of zero. In 2003 our region has the opportunity and the imperative to make such dramatic progress toward these goals.

We believe leaders must publicly commit themselves to the elimination of all errors and infections within aggressive time frames.

In the past, "benchmarking"—measuring one institution's performance against a perceived norm—may have kept us from breaking through to unparalleled levels of excellence. This scorecard highlights four recommended pivot points, through which leaders can boost entire institutions to levels of performance they never believed possible. This scorecard also offers each institution the opportunity to set its own, more comprehensive set of objectives that they believe will hasten their way to the ultimate goal: *perfect patient care*.

Working together, PRHI partners have created unparalleled opportunities for collaboration, education, and on-the-ground support. Leaders ready to take full advantage of these community resources stand to:

a) Unleash the vast potential of every employee to solve problems; and

b) Reap enormous gains in patient care, employee satisfaction and waste reduction.

According to former Treasury Secretary and PRHI leader, Paul O'Neill, perfecting health care throughout one entire region is some of the most ambitious, urgent work in the country. Your partners at PRHI stand ready to help as you reach for the larger goal.

PIVOT POINTS FOR 2003

WHY CAN'T WE:

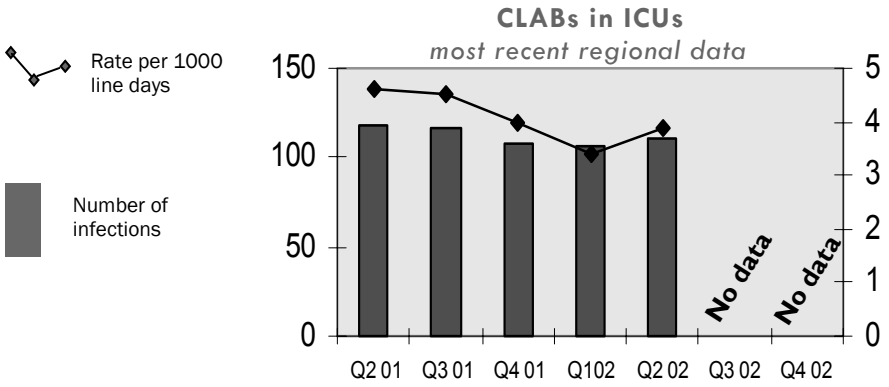
1. Eliminate central-line associated bloodstream infections?
2. Eliminate medication errors?
3. Eliminate in-hospital mortality following coronary artery bypass graft surgery?
4. Share every major event or learning regionally as soon as possible?

GOALS 2003:

SETTING OUR GOALS AT *PERFECTION* HELPS US ASK THESE POWERFUL QUESTIONS FOR EVERY PATIENT:

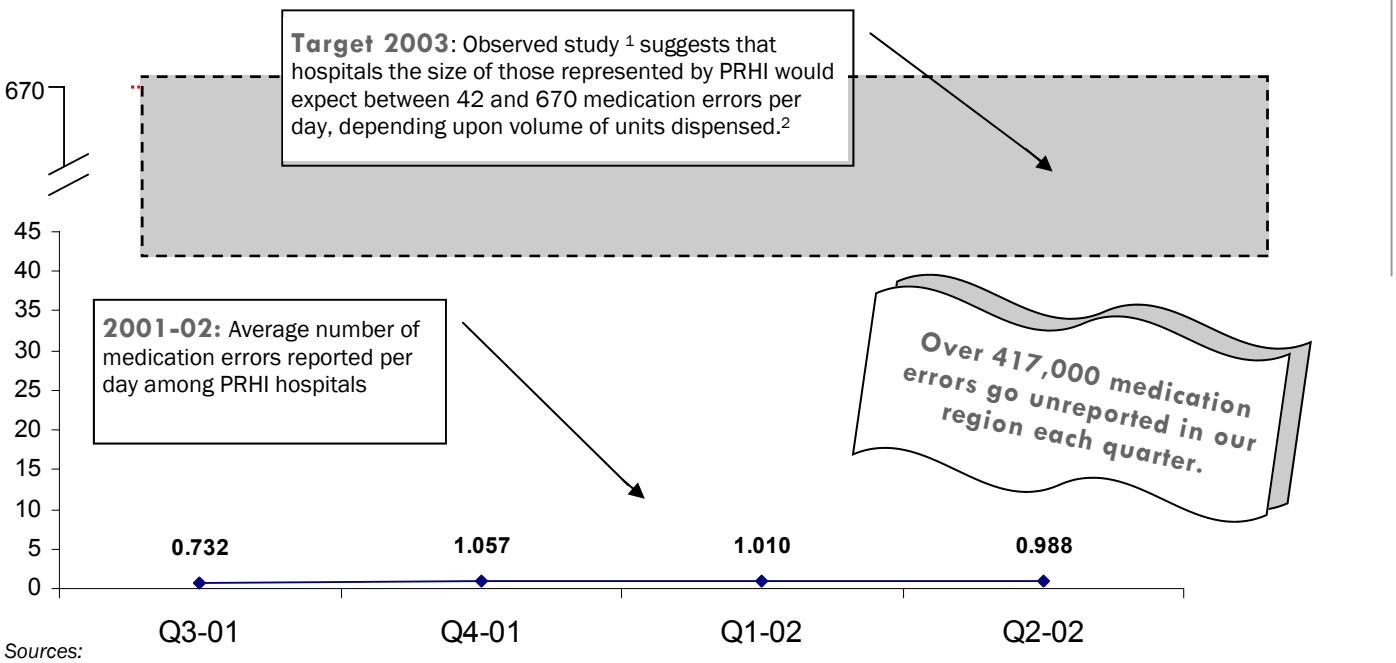
1. ELIMINATE CLABS

TARGET 2003: **ELIMINATE CLABS IN ICU'S; REDUCE CLABS *OUTSIDE* ICUS, MRSA, OTHERS BY 50%.**



2. ELIMINATE MEDICATION ERRORS

TARGET 2003: **REPORT ALL ERRORS DAILY AND ELIMINATE 50% OF THEM.**



Sources:

[1] Bates et al, *Relationship between medication errors and adverse drug events*, J Gen Intern Med, 1995

[2] *The expected range is calculated at 5% of units dispensed (or orders) for the PRHI hospitals at the initiation of the PRHI AHRQ patient safety grant*

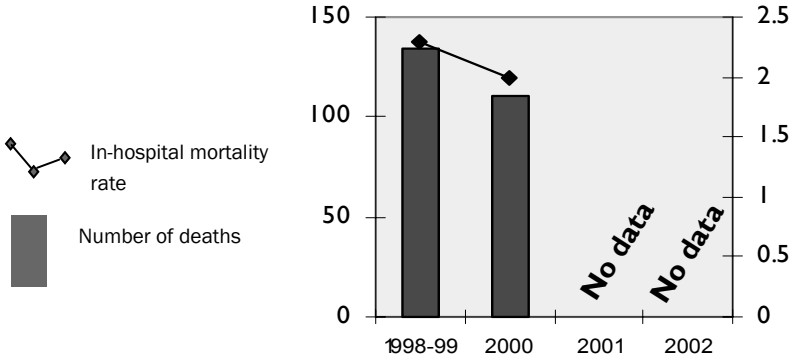
A LOOK AT THE REGION

- **WHAT PREVENTS US FROM ACHIEVING *ZERO INFECTIONS AND MEDICATION ERRORS*?**
- **WHAT PREVENTS US FROM PROVIDING *PERFECT PATIENT CARE*?**

3. ELIMINATE IN-HOSPITAL MORTALITY FOLLOWING CABG SURGERY

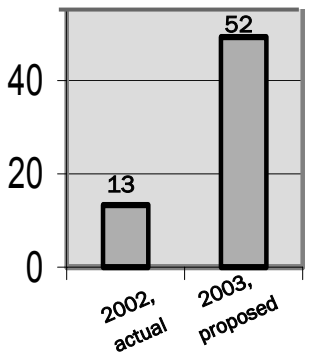
***TARGET 2003*: 50% FEWER PATIENTS DIE IN-HOSPITAL AFTER CABG SURGERY.**

Most recent CABG in-hospital mortality regional data *Source: PHC4*



4. SHARE EVERY MAJOR LEARNING ACROSS THE REGION AS SOON AS POSSIBLE

TARGET 2003: **EVERY WEEK, AT LEAST ONE HOSPITAL POSTS A SIGNIFICANT LEARNING.**



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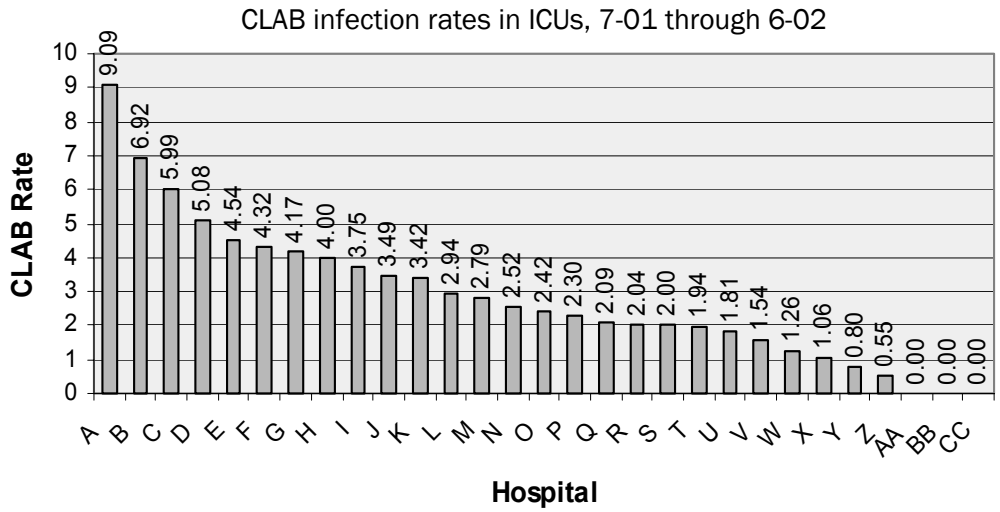

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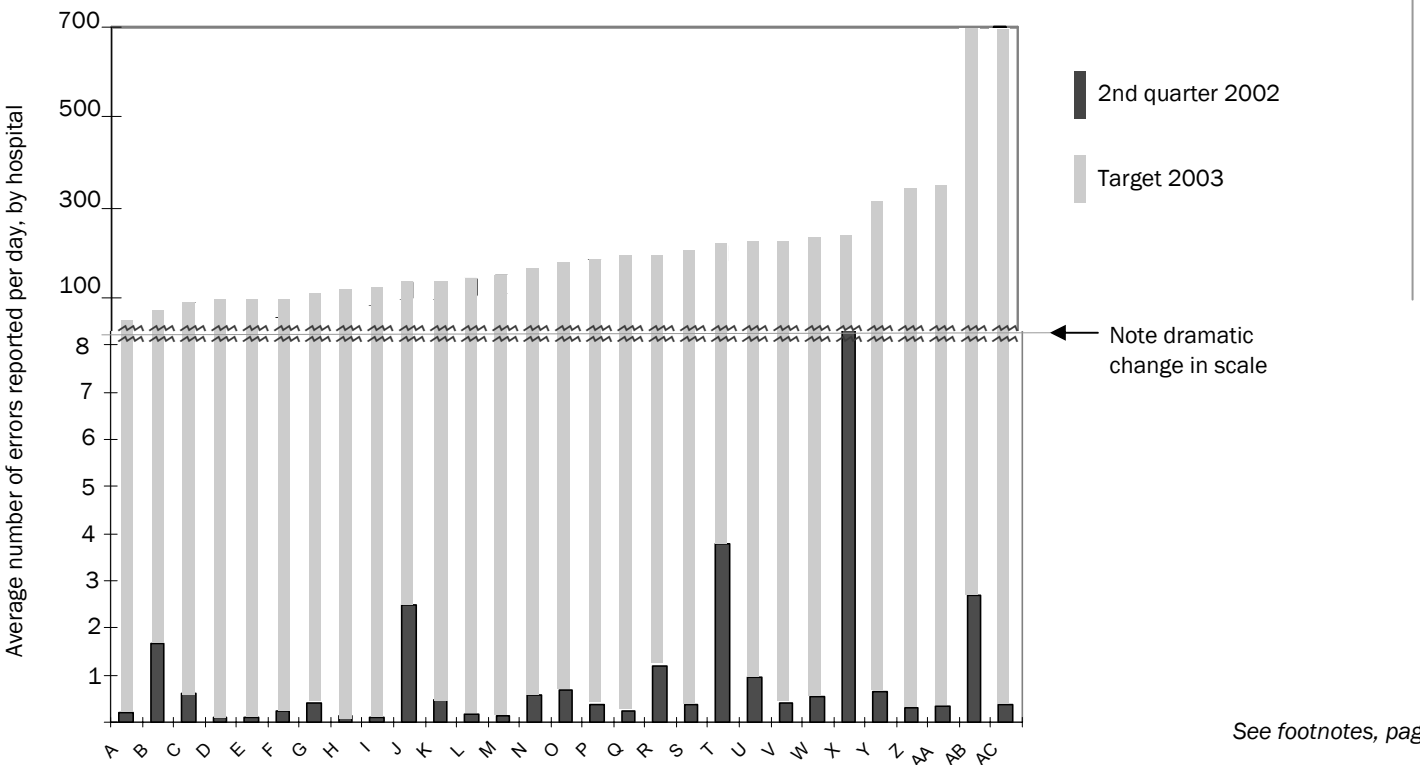


See footnotes, page 4

A LOOK AT EACH INSTITUTION

3. ELIMINATE IN-HOSPITAL MORTALITY FOLLOWING CABG SURGERY

***TARGET 2003*: 50% FEWER PATIENTS DIE IN-HOSPITAL AFTER CABG SURGERY.**

CORONARY ARTERY BYPASS GRAFT SURGERY (CABG) - HOSPITAL OUTCOMES

Hospital	1998-1999 In-Hospital Mortality rate	Vs. Expected*	2000 Rate	Vs. Expected*	2001 Rate	Vs. Expected*	2002 Rate	Vs. Expecte	2003 Q1 Rate 1Q	Vs. Expecte	2003 Q2 Rate 2Q	Vs. Expecte	2003 Q3 Rate 3Q	Vs. Expecte	2003 Q4 Rate 4Q	Vs. Expected*	
A	3.50%	+		o													
B	3%	o	DATA	o													
C	2%	o		o													
D	1.60%	o	ATO	o													
E	1%	o		o													
F	2.70%	o	BE	o													
G	2.40%	o	PUR	-													
H	1.60%	o		o													
I	2.50%	o	CHA	o													
J	2.90%	o		o													
K	1.60%	o	SED	o													
L	1.50%	o		o													
M	1.40%	o		o													
N																	

- = lower than expected
+ = higher than expected
o = as expected

4. SHARE EVERY MAJOR LEARNING ACROSS THE REGION AS SOON AS POSSIBLE

***TARGET 2003:* EVERY WEEK, AT LEAST ONE HOSPITAL POSTS A SIGNIFICANT LEARNING.**

In 2002, two PRHI hospitals shared important information through Regional Advisories targeted to hospital CEOs.

One Regional Advisory was sent to alert the community to faulty IV pump set-ups that could be corrected. Another went out describing an outbreak of *pseudomonas* infection tied to bronchoscopes.

The Medication Administration Advisory Committee is sharing the top medication errors from their group—those deemed the most potentially serious or insidious. Eleven findings were shared in this way in 2002.

At least once a week in 2003, one hospital will share information regionally via a Regional Advisory, the *PRHI Executive Summary* newsletter, or at a station to be set up on the PRHI website.

GOALS 2003:

WHAT EXPECTATIONS WILL MY HOSPITAL SET IN PURSUIT OF ZERO

GOAL: NO PATIENT WHO COMES TO US FOR CARE WILL CONTRACT A HOSPITAL-ACQUIRED INFECTION.

Our current baselines. Here's where we stand:

CLABs in ICUs _____

CLABs across the hospital _____

MRSA _____

Other NI types _____

_____

_____

On our way to ZERO infections, in 2003 we expect to show at least a 50% reduction in these infections. Here are our specific expectations:

CLABs in ICUs _____

CLABs across the hospital _____

MRSA _____

Other NI types _____

_____

Recognizing that our participation in PRHI obligates us to share what we are learning, my hospital will:

☐ Participate in the Nosocomial Infection Advisory Committee
☐ Share stories and root cause analyses with other leaders in the collaborative
☐ Submit requested data in a complete and timely fashion.
☐ Other method(s) we will pursue _____

GOAL: NO PATIENT WHO COMES TO US FOR CARE WILL SUFFER A MEDICATION ERROR.

Our current baselines. Here's where we stand:

Average # of medication error reports per day _____

# of errors solved to root cause _____

On our way to ZERO medication errors, in 2003 we expect to show at least a 50% reduction in these errors. Here are our specific expectations:

Average # of medication error reports per day _____

# of errors solved to root cause _____

Recognizing that our participation in PRHI obligates us to share what we are learning, my hospital will:

☐ Participate in the Medication Administration Advisory Committee
☐ Share stories and root cause analyses with other leaders in the collaborative
☐ Submit requested data in a complete and timely fashion.
☐ Other method(s) we will pursue _____

WORKSHEET FOR MY INSTITUTION

INFECTIONS AND MEDICATION ERRORS, AND PERFECT CARDIAC CARE?

GOAL: NO PATIENTS UNDERGOING CARDIAC SURGERY WILL DIE IN THE HOSPITAL.

Our current baseline. Here's where we stand:

Rate of in-hospital mortality following coronary artery bypass graft (CABG) surgery_____

On our way to ZERO post-CABG hospital mortalities, in 2003 we expect to show at least a 50% reduction. Here is our specific expectation:

Rate of in-hospital mortality following coronary artery bypass graft (CABG) surgery_____

Recognizing that our participation in PRHI obligates us to share what we are learning, my hospital will:

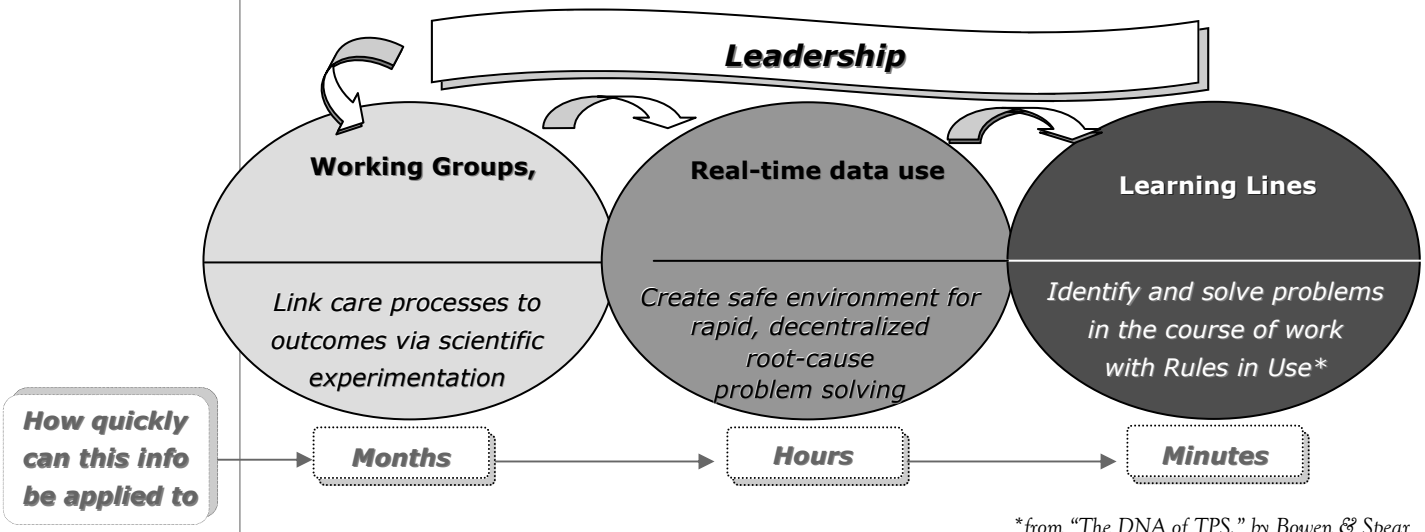
- ☐ Participate in the Cardiac Working Group
- ☐ Registry, submitting requested data in a complete and timely fashion
- ☐ Enact the four processes of care (aspirin, beta blockade, avoidance of hemodilution on bypass, and use of internal mammary artery if available) known to reduce postoperative mortality
- ☐ Participate in the Cardiac Forums.
- ☐ Share stories and root cause analyses with other leaders in the collaborative

THE PRHI LEARNING MODEL:

PRHI offers the region's healthcare leaders a forum for asking the question: *How do we get from where we are to where we could be?* Southwestern Pennsylvania is the only region in the country where leaders from all segments of the community have signed a commitment to strive together toward perfect patient care. This Scorecard sets four specific, audacious healthcare goals before the community for 2003.

To help our partners reach those goals, PRHI marshals unprecedented community resources for institutions that seek them. The PRHI learning model serves partners' needs to collaborate, learn, understand and accelerate progress through Working Groups and Registries; Real-time data implementation; and Perfecting Patient Care learning lines.

The illustration below describes how, acting on requests from hospitals, PRHI stands ready to help partners take those important "next steps" to achieve dramatic—50% per year—advancement toward the goal of zero.



*from "The DNA of TPS," by Bowen & Spear

WORKING GROUPS

Who: Hundreds of clinicians, physicians and specialists; leaders of medical organizations

Contibutions: PRHI estimates that area physicians have contributed over 12,000 volunteer hours—at a value of over $1.8 million. In return, participants become part of a forum that is rare in American medicine. They meet with physicians and other clinicians from competing hospitals to share learning about what works, what doesn't, and what *might work better*.

Patient benefits: Patient care improves as clinicians to share information about best practices *regionally*.

How do Working Groups contribute to healthcare system change?

They create safety to collaborate outside the walls of a single institution; use power of learning from individual patient experiences; and connect care to outcomes.

How do Working Groups compress the problem-solving timeline?

Clinical study → *Years*

Testing clinical hypotheses through data registry, sharing learning and adjusting practices → *Months*

Limitations: Trying to make process changes in a larger, unchanged system can be difficult.

REAL-TIME REPORTING

Who: Leaders of healthcare institutions, plans, purchasers create a safe system for rapid, decentralized root-cause problem solving—*involving everyone*.

Leader benefits: The opportunity to examine specific problems within 24 hours of when they occur—without waiting for aggregated quarterly data. Sets the stage for solving problems one at a time, understanding their root causes, and gaining input from everyone in pursuit of improvement.

Patient benefits: Patient care improves as errors are caught early and their root causes exposed.

How does real-time error reporting contribute to healthcare system change?

Creates safety to report errors; forces de-centralized problem solving and allows system-wide learning; involves many people; adds value to healthcare system every day.

How does real-time error reporting compress the problem-solving timeline?

Quarterly, aggregated data reports →*Months, years*

Real-time examination of errors → *24 hours*

Limitations: While providing the requisite safe reporting environment, real-time reporting does not provide complete, efficient system redesign.

LEARNING LINES

System benefits: The opportunity to expose and solve problems to root cause immediately. The design meets organizational needs through aggressive waste and cost reduction.

Patient benefits: Patient care improves immediately, incrementally and continuously.

How do Learning Lines contribute to healthcare system change?

As problems are solved at their root one by one, system redesign is taking place according to patient need. Waste is eliminated and people's ideas are implemented in the course of work.

How do Learning Lines compress the problem-solving timeline?

Current system of work-arounds → *Months, years, if ever*

Problem resolution, one by one → *Minutes*

Limitations: Root causes outside of the institution (with health plans, purchasers, regulators, government entities, etc.), require enhanced, broad system of problem-solving mechanisms.

A COMPREHENSIVE LOOK ACROSS PRHI

2003 PROCESS MEASURES

PRHI STRATEGY	CHANGE HYPOTHESIS	LEVERAGE POINT	2003 PROCESS GOAL
LEADERSHIP	Create safety to report problems	Reported errors	All errors reported daily
	Maximize support to leaders who request it	Regular 1x1 meetings with CEOs	3 to 5 leaders proceeding with patient-focused system change
	Provide peer support	Leadership Obligation Group	Increased CEO attendance
REGIONAL LEARNING	Complete safety to report problems	Reported errors	All errors reported daily
	Everyone involved in problem solving	Decentralized problem solving	Decrease problem-solving time from months to hours
	In-depth PPC System exposure	PPC University training	100 people
	Shared linking of process to outcome		All community stakeholders
COMMUNITY ENGAGEMENT	Hospital-acquired infections	♦ Establish connection of process to outcome link for BSIs in ICUs ♦ Establish MRSA process measures ♦ Collect surgical site infection process and outcome information	♦ All centers reporting back the process data ♦ # centers submitting process tracking information ♦ # of centers submitting process tracking information
	Medication errors	Establish links between process and outcomes for: ♦ Fentanyl patches ♦ Abbreviations	# of centers submitting process tracking information
	Cardiac care	Shared learning through working group, registry, cardiac forums	Recommendations, 100%: ♦ IMA use ♦ Hemodilution avoidance ♦ Pulse rate control ♦ Aspirin use
	Chronic care initiatives	Physician/patient-based information available	Tools @ 40-50 PCP practices A1C, Lipid profiles ⇧ 30% (toward 100%) Depression follow-up rate, anti-depressive medication adequacy ⇧ 30% (toward 100%)
	Obstetrics	Baseline data for mother outcome with link to baby health indicators	Complete by Q1 2003
	PPC awareness & training	Information sessions	500 people
	National Best Practice learning	National Clinical Improvement Network (NCIN)	Quarterly meetings

2002 PROGRESS MEASURES

Hospital acquired infections		
Original goal	***2002 target***	***2002 actual***
Baseline bloodstream infection rates established in all ICUs	100%	100%
Reduce BSIs in ICUs by 20%	20%	15%
Measure baseline MRSA rates in BSIs (hospital-wide), ventilator-associated pneumonias, hip & knee replacement surgery, and invasive cardiac surgery	29 hospitals reporting	28 hospitals reporting
Reduce wound site infections	Collect data in one area	0 progress
Medication Errors		
Original goal	***2002 target***	***2002 actual***
MedMARx or other automated	30 hospitals	29 hospitals
Increase reporting by 50% from pre-	.02%	.03%

Learning Lines		
Original goal	***2002 target***	***2002 actual***
Learning lines operating at sites	5	2
Regional Learning Opportunities		
Original goal	***2002 target***	***2002 actual***
Educational outreach with: ♦ TPS introductory sessions ♦ Formulate PPC university ♦ Formulate national clinical	♦ 275 ple ♦ Develop ♦ Develop	♦ 607 people ♦ 107 leaders trained ♦ NCIN meeting
Share regionally what hospitals are learning	Share general learnings	11 med errors 2 Regional

Coronary artery bypass graft (CABG) surgery		
Original goal	***2002 target***	***2002 actual***
PRHI Cardiac Registry operating in all cardiac surgery sites	13	11; startup funding acquired
Submit complete PHC4 data on time each quarter	Complete submittal	Best in state
Chronic care initiatives (depression, diabetes)		
Original goal	***2002 target***	***2002 actual***
Pilot outpatient registries for diabetes and depression	Develop	Ready for roll-out in 10 PCP practices
Orthopedics		
Original goal	***2002 target***	***2002 actual***
Orthopedic registry for hip & knee replacement surgery	75% operational	*Suspended due to lack of MD interest*
Obstetrics		
Original goal	***2002 target***	***2002 actual***
PHC4 report on repeat C-section	Repeat	Re-focus efforts on maternal-child outcomes

PRHI

WHO WE ARE . . .

The Pittsburgh Regional Healthcare Initiative is a collaborative effort of the institutions and individuals that provide, purchase, insure and support health care services throughout the six counties of Southwestern Pennsylvania.

Healthcare delivery is the region's largest single industry and shapes the life of each member of the community. We are working together to:

- Achieve the world's best patient outcomes …
- Through superior health system performance …
- By identifying and solving problems at the point of patient care.

Through our efforts to achieve perfect patient care, we believe we will address many of the major challenges facing health care in our region and across the country. We believe these challenges – rising costs, frustration and shortage among clinicians and workers, financial distress, overcapacity, and lack of access to care – are all symptoms of the same root problem: *failure of the system to focus solely on patient needs.*

WHAT WE'RE TRYING TO ACHIEVE . . .

We are working to achieve perfect patient care in the six counties of the Pittsburgh Metropolitan Statistical Area (Allegheny, Beaver, Butler, Fayette, Washington, and Westmoreland counties) using the following, *patient-centered* goals:

→ *Zero* medication errors.

→ *Zero* healthcare-acquired (nosocomial) infections .

→ *Perfect* clinical outcomes, as measured by complications, readmissions and other patient outcomes, in the following areas:

- Coronary artery bypass graft surgery
- Hip and knee replacement surgery.
- Obstetrics: maternal and child outcome.

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