

**Quality Healthcare Network
Fall Leading Forum 2005**

***Quality Management Comes of Age:
Improving Quality
by Integrating Communities***

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**Six Lessons from
a Decade of Learning**

1. Where There's No Will—There's No Way
2. There's No Substitute for Leadership
3. An Organization (or a Community) is NOT a Machine
4. Improvement Models Can't be More Complicated than the Problems We're Trying to Solve with Them
5. Paper Kills
6. We Must Turn to One Another

**1. Where There's No Will—
There's No Way**

- We've just begun to tell the truth about our performance—to ourselves and to those whose lives depend on it
- We have been stunned to discover that urgency to close the gap is lacking
- The source of greatest urgency? The desperate voices of patients and families that were reduced to numbers

Josie King's Story



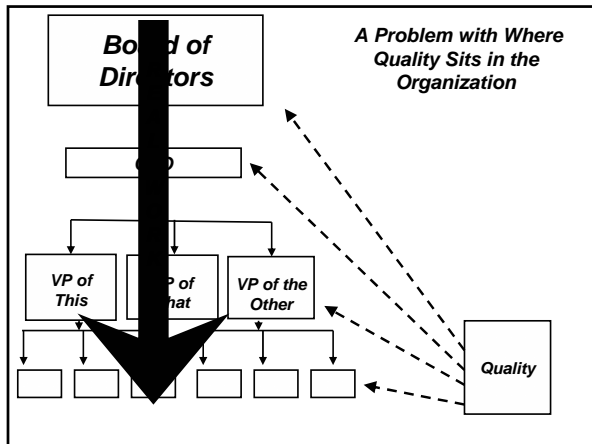
From: www.josieking.org

To Create Will

- Measure the gap for **your own** organization and community
- Talk about the gap openly with your colleagues—and if you're really committed—with your patients and families
- Invite your patients and families to tell their stories to staff, physicians, administrators, governmental officials, the public
- Put a patient or a family member on every board, committee, improvement team, design team, etc., —top to bottom in the region
- Set aims for improvement at the highest levels of the organization; Measure and openly discuss the progress

2. There's No Substitute for Leadership

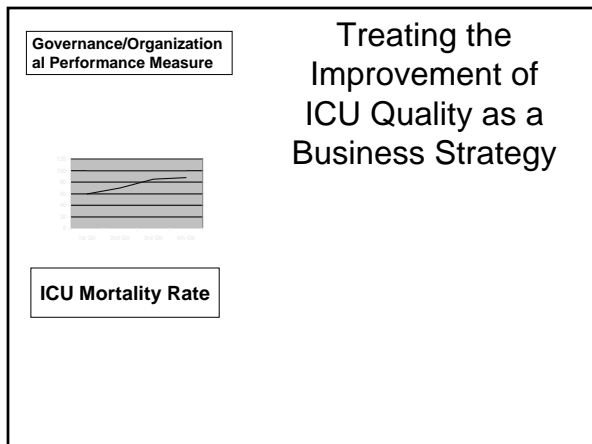
- We have approached quality improvement on a "project by project" basis and not seen it as a strategy
- It isn't enough to establish a Quality Department
- It isn't enough to set an aim at the top level and charge front-line staff with achieving it
- Leadership requires much more courage than we realized

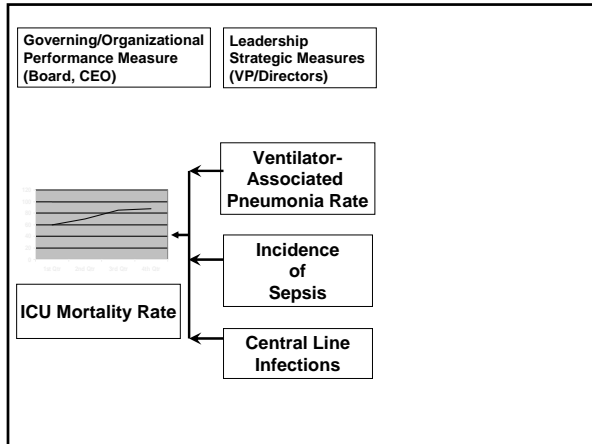


When Leaders Think Strategically About Quality: *Selecting ICU Care*

- Area of highest mortality and morbidity in the acute care setting
- 25-30% of all hospital costs
- Leapfrog, JCAHO, CMS, and others have chosen to focus on it in a big way
- Significant threats to patient safety
 - 17% of ICU patients suffer serious adverse events (*Andrews 1997*) (so complications are an issue)
 - On average every patient admitted to an ICU suffers a potentially life threatening error* (*Pronovost, 2002*)

*Based on 55,000 daily, 5 million annually in U.S. ICUs

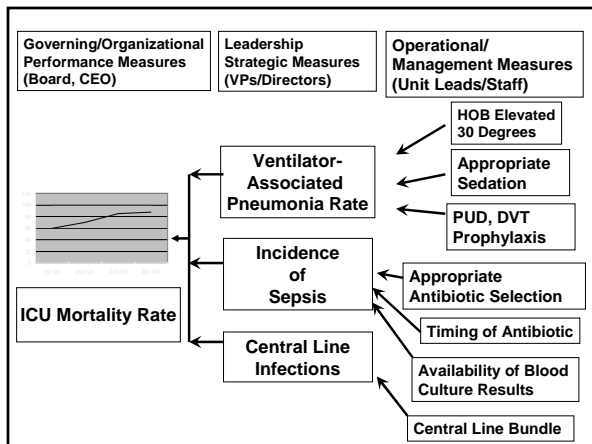




Proven Interventions to Improve ICU Care

- Replicate what has been done in the VHA system and now in Michigan and New Jersey:
 - To prevent ventilator complications, implement the Ventilator Bundle:
 - HOB ↑ 30 degrees
 - PUD prophylaxis
 - Glucose management
 - DVT prophylaxis
 - Sedation management
 - Implement Daily Goals Sheets and multidisciplinary rounds to decrease DVT and GI bleed rates (and others)
 - Implement the Central Line Bundle to improve central line infections
 - Reconcile medications upon transfer to reduce error
 - Implement the Sepsis Bundle

See www.ihl.org for more information



The Job of Leadership: Put Systems in Place that Focus on *Execution*

- Reports to the Board on Quality and Safety match the process and importance given to the financial component
- Leaders ask to see the data at every review meeting with managers and staff
- Make progress (or lack thereof) *matter* – build the achievement of results into evaluation and compensation plans of *everyone*—from staff to senior leaders (ease into this – for example, put team participation in the first year, then step it up to achievement of results as they gain skills)

The Job of Leadership (*cont.*)

- Staff development work is *crucial*
 - Train them in modern improvement methods, including most current knowledge on safety improvement, use of the Model for Improvement, proper use of measurement and working in teams, etc.
- Avoid “holding them accountable” if they are not being developed, supported and rewarded. Not only will desired results not be achieved, but morale will plummet.

The Job of Leadership (*cont.*)

- Leaders provide support and coaching and are accountable for the outcomes of teams. Support includes:
 - “Huddling” with teams frequently (weekly!) and removing barriers to improvement
 - Providing resources for education, team meetings, measurement and testing recommended improvements
 - Recognizing and rewarding team results—all the way to the Board. Presentations from successful teams should regularly be a part of the Board agenda.

The Job of Leadership (Cont.)

- Leaders must learn the theory behind the change and know their role (e.g. we can't reduce harm from medication errors unless we create a culture of safety)
- Evaluate continually – not annually—using the same PDSA cycle used at the staff level
- Frequently stop and ask, "Would we manage the finances this way?"

What is the Opportunity for Improvement?

Mean results from IHI ICU Collaborative and 1000 ICU admissions:

<u>Process</u>	<u>Adverse Events</u>	<u>Excess costs</u>
Sedation	1260 ICU days	\$1.5 million
Transfusions	666 Transfusions	\$200,000
Peptic ulcer	3 deaths 220 ICU days	\$264,000
Elevate head	40 deaths 562 ICU days	\$680,000
DVT	4 deaths 243 ICU days	\$291,000

47 Deaths and \$3 million annually

Pronovost, 2003

3. An Organization (or a Community) is NOT a Machine

- We have learned that our organizations and communities are Complex Adaptive Systems:

A collection of individual agents, who have the freedom to act in ways that are not totally predictable and whose actions are interconnected such that one agent's actions changes the context for the other agents

Pisek 2004

Complex Adaptive Systems Theory Challenges "Common Sense"

- Change does not have to be imposed in order for a system to change for the better
- "Simple Rules" can guide very complex behavior in complex systems
- "We must overcome resistance to change!" implies that we need to fight to improve the system---instead, we need to work with the natural attraction to change

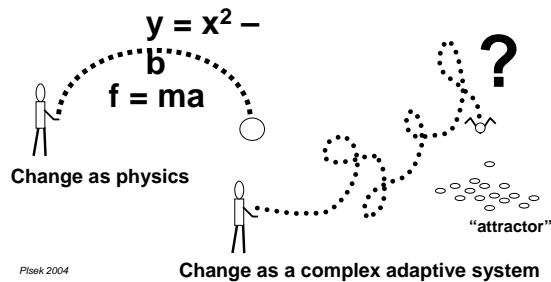
Pissek 2004

Attractor Patterns

Complex behavioral patterns can be brought about by *attracting* the individuals toward a desired new state.

Pissek 2004

Change: Physics or Complex Adaptive System?



Some Guidance from Complex Adaptive Systems Theory

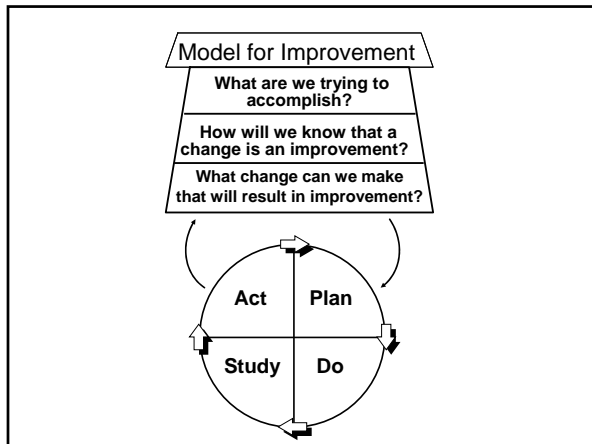
- Understand that the relationship between the parts is more important than the parts
- Build a good enough vision
- Employ simple rules
- Go for multiple action at the fringes
—let direction arise

No needless death, no needless pain, no unwanted waits, no helplessness and no waste.

-Donald M. Berwick, MD

4. Improvement Models Can't be More Complicated than the Problems We're Trying to Solve with Them

- Our overly complex improvement models cried out for Simple Rules!
- The models led us to treat almost all of our problems as if they had never been solved before
- The "Single Solution" idea doesn't work
- We relied way too heavily on tools of analysis



Lessons Learned from the Model for Improvement

- This model works at all levels
- There is magic in small-scale testing of changes
- We build communities when we replicate the successful work of others
-
- Implementing changes in "bundles" is not only appropriate, its critical

**Component vs. Composite:
Reliability of the Treatment of
Pneumonia in Medicare Patients**

- **COMPONENT:** 63.1% receive first dose of antibiotics within four hours of hospital arrival
- **COMPONENT:** 67.9% receive an antibiotic choice consistent with current guidelines
- **COMPONENT:** 81% have blood cultures collected before treatment
- **COMPOSITE:** 26% get all three of these

Note: Composites are also known as "bundles".

**Institute for Healthcare Improvement's
100K Lives Campaign**

Six Changes that Save Lives:

- Rapid Response Teams
- Reliable Care for AMI
- Reliable Use of Ventilator Associated Pneumonia Bundles
- Reliable Use of Central Venous Line Bundles
- Surgical Site Infection Prophylaxis
- Prevention of Adverse Drug Events with Reconciliation

5. Paper Kills

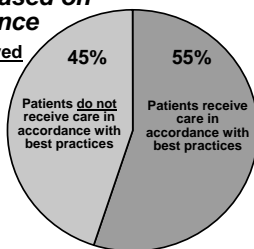
- The lack of investment in information technology is an embarrassment—in the U.S. it lags everything but the mining industry (*The Economist*)
- This seems to be the most basic of dialogues that our patients deserve—that we provide each other the information needed to render care safely and effectively
- Done correctly, this is the “Trojan Horse” to introduce true community-wide collaboration

**Unwarranted Variation in
Care Delivery**

**Nearly one-half not based on
best-known science**

% of Recommended Care Received

64.7%	Hypertension
63.9%	Congestive Heart Failure
53.9%	Colorectal cancer
53.5%	Asthma
45.4%	Diabetes
39.0%	Pneumonia
22.8%	Hip Fracture



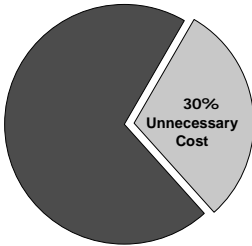
Source: Elizabeth McGlynn et al, RAND, 2003

From the Veteran's Health Administration's Data

- 1 in 7 hospital admissions occurs because care providers do not have access to previous medical records (NEJM, 2004)
- 20% of lab test are requested because previous studies are not accessible.

The Cost and Quality Opportunity

Practice Variation



Fisher, Wennberg, et al, Annals of Internal Medicine, 2003

"...30% of direct health care outlays are the result of poor-quality care..."

MBGH, Juran, et al 2002

"...20 to 30 percent of the acute and chronic care that is provided today is not clinically necessary."

Becher, Chassin 2001

"...cost of poor quality was ... nearly 30% of the expense base... The biggest opportunities were in the core medical processes that comprise the majority of what we do."

Mayo Clinic

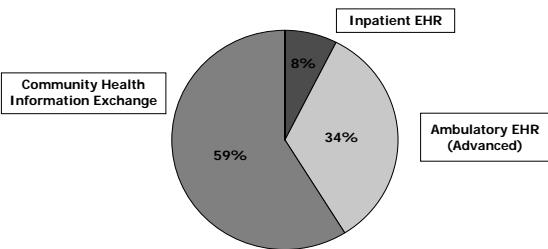
"Costs associated with poor health care account for 30% of the premiums people pay."

David Lawrence, MD

"The cost of poor quality in health care is as much as 60% of costs"

Brent James, MD, IHC

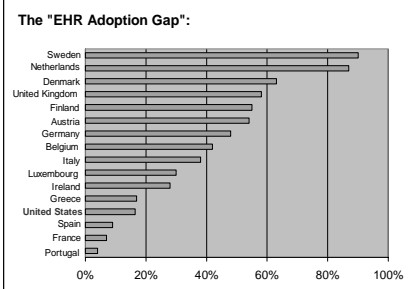
National Health Information Infrastructure Net Estimated Annual Savings: \$132 Billion



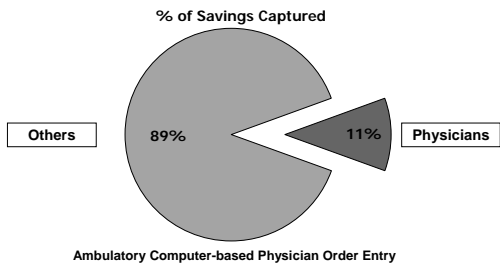
Sources: Johnston, J., et al. The Value of CPOE in Ambulatory Settings; and Pan, E., et al. The Value of Health Information Exchange And Interoperability, Center for Information Technology Leadership, 2004, 2004. Based on the Experience of Early Adopters

Where the U.S. Stands Today

■ EHR Adoption Rates in the U.S. are way below other countries

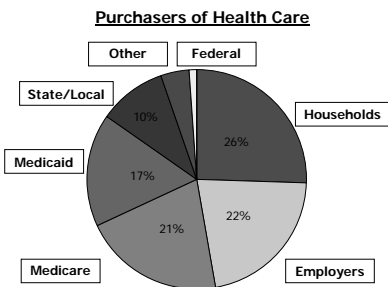


Misaligned Incentives Drives Lack of Capital for IT Investment



Source: Center for Information Technology Leadership, 2003

The "Others" (89%)



Source: Health, United States, 2002

7. We Must Turn to One Another

- Fragmentation is a huge part of the problem— but it is a cause or a symptom?
- We have struggled separately to achieve what we can accomplish only together (Berwick)
- The power of trust to solve our problems is yet untapped

An Experiment in Applying the New Knowledge: The Rhode Island Quality Institute

Mission:

A collaboration among hospitals, health care providers, insurers, consumers, business, academe and government for the purpose of improving health care quality, safety and value in Rhode Island.

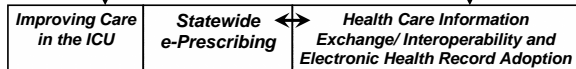
RI Quality Institute

- Catalyzed in 2001, incorporated in 2002
- Freestanding Not-for-Profit 501(c)3
- Funded by participant contributions, grants, contracts and payment for services
- 21 Board members
 - Hospitals, physicians, nurses, pharmacists, consumers, health insurers, professional associations, the QIO (Medicare), business, academe and state government
 - One organization/person--one vote on the Board
 - Consensus is the primary decision-making mode
- High levels of participation beyond the Board
- Lean structure

The Principles that Guide the RI Quality Institute

- Collaboration—first and foremost
- Real improvement in quality, safety and value is required
- Focus on system improvements that none of us can achieve alone
- Transparency—the “right to know”
- Commitment to a patient/consumer-centric system with an emphasis on patient control, privacy and security
- Senior leaders required

The Quality Institute's Strategic Agenda



Benefit realization in the short term

Benefit realization longer-term, but broad and very substantial

We must trust...

- Our patients
- The public
- Knowledge
- Simple rules
- Transparency
- Each other

...and that meaningful conversations can change the world

Simple References

- Building Will: Conversations with the Patients and Families You Serve
- Leadership: Seven Leadership Leverage Points for Organization-Level Improvement in Health Care
<http://www.ihl.org/IHI/Products/WhitePapers/SevenLeadershipLeveragePointsWhitePaper.htm>
- Complex Adaptive System Theory Applied to Health Care: Zimmerman, B and Plsek, P, *Edgeware: Insights from Complexity Science for Health Care Leaders*, VHA, 1998
- Model for Improvement: Langley J, Nolan K, Nolan T, Provost L., *The Improvement Guide*, San Francisco: Jossey-Bass 1996
- Information Technology in Health Care: Walker, et. al., "The Value of Health Care Information Exchange and Interoperability", *Health Affairs*, Jan., 2005
- Turning to Each Other: Wheatley, Margaret, *Turning to One Another: Simple Conversations to Restore Hope to the Future*, Berrett-Koehler Publishers, San Francisco, 2002
